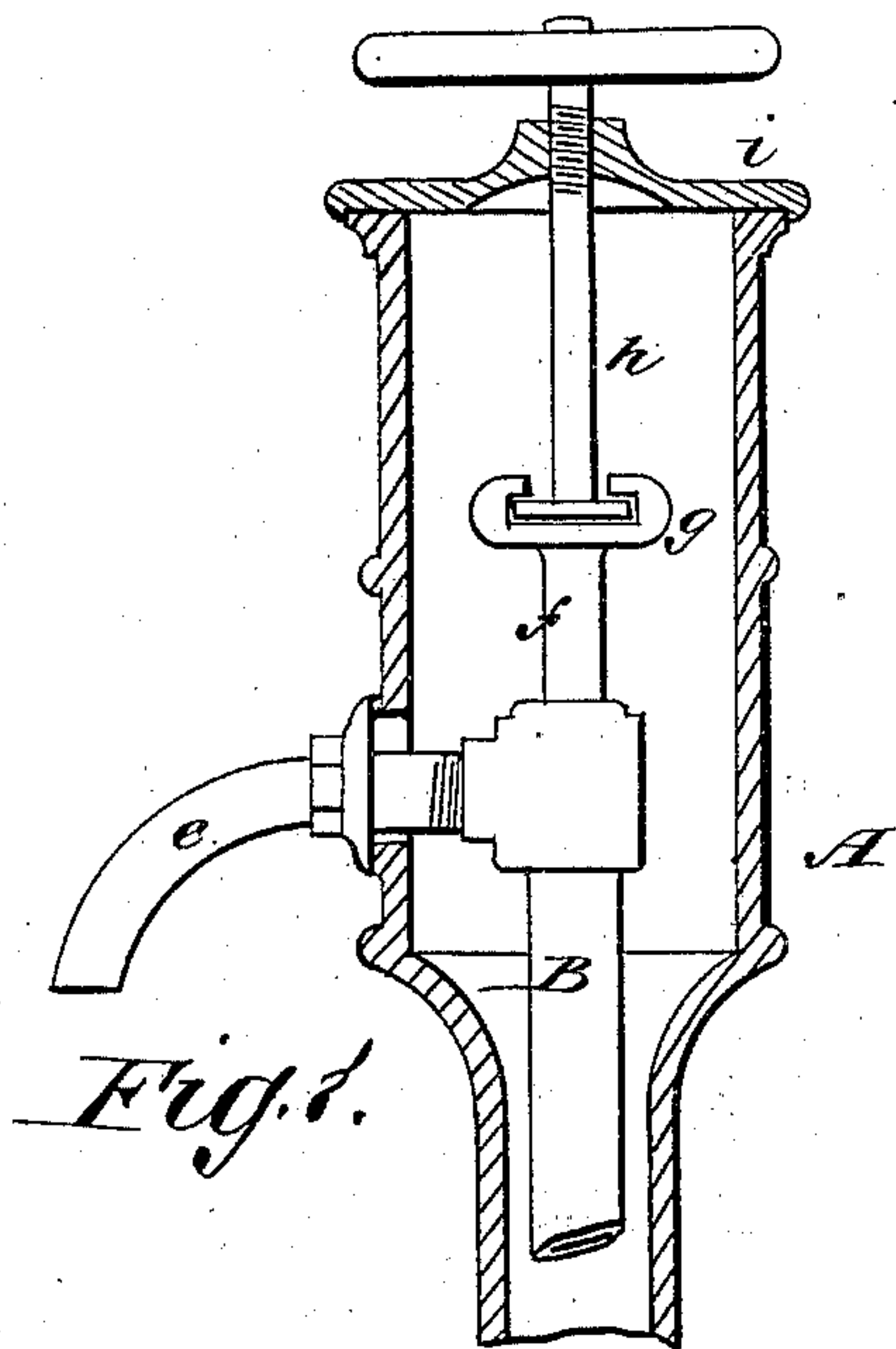


(No Model.)

J. FLANAGAN.  
Hydrant Valve.

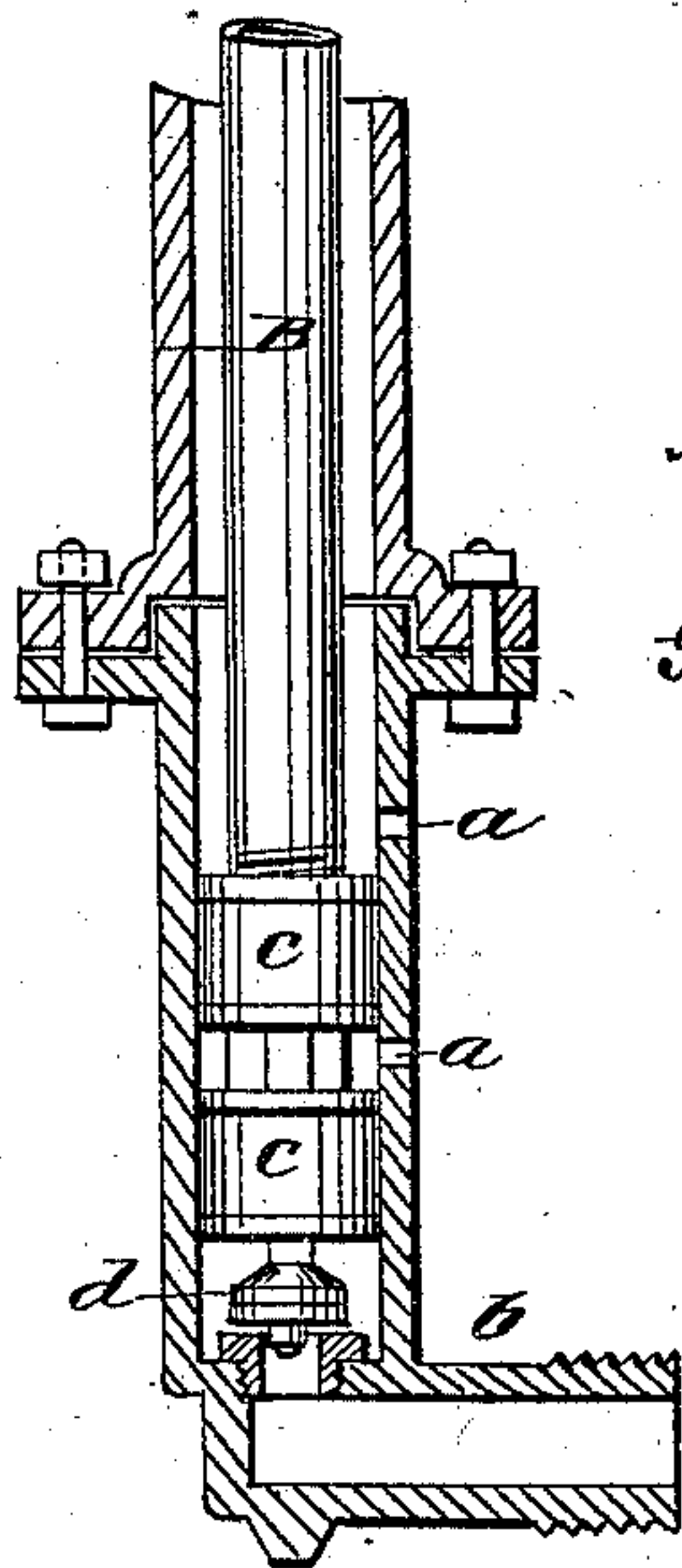
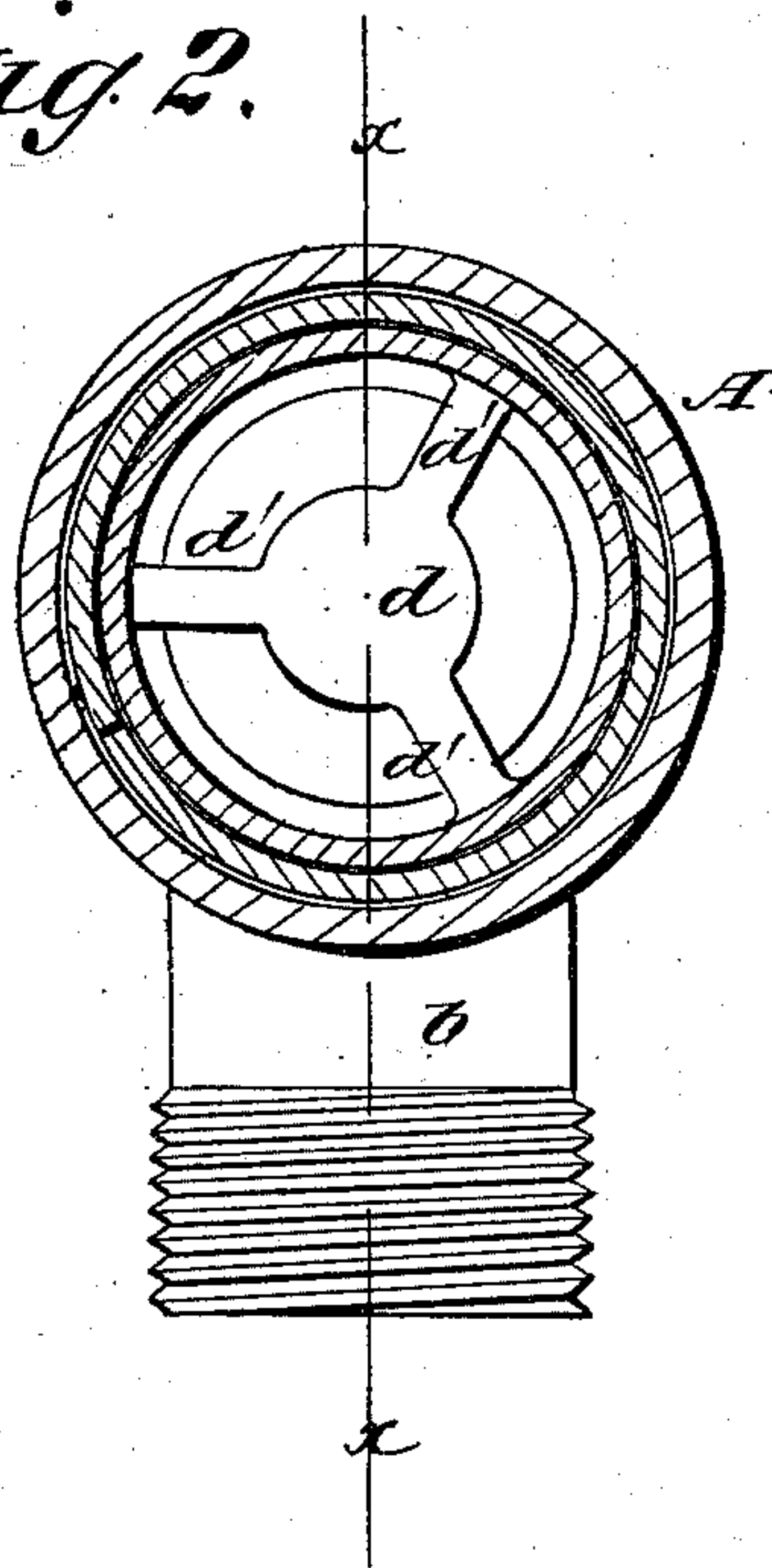
No. 238,879.

Patented March 15, 1881.

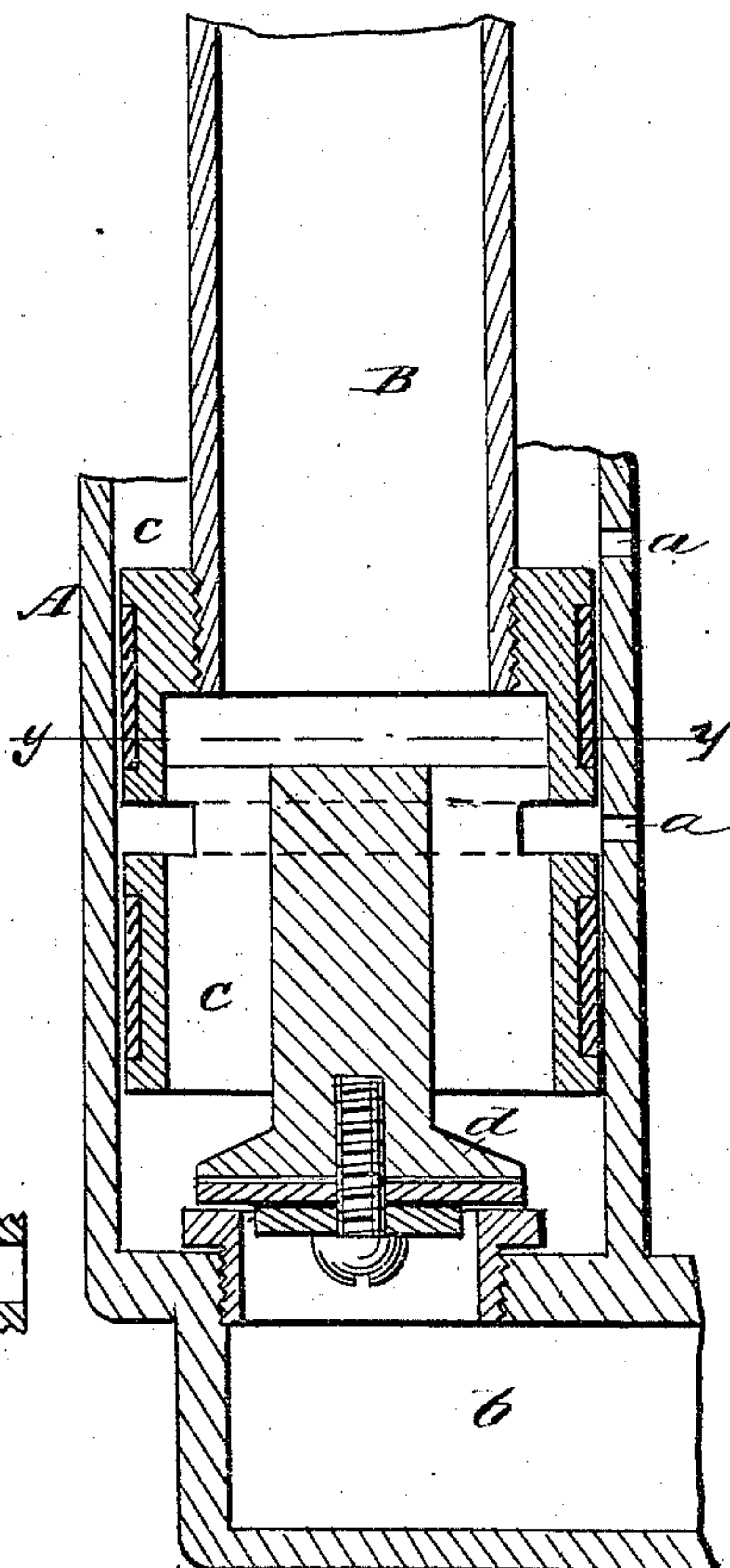


*Fig. 1.*

*Fig. 2.*



*Fig. 3.*



WITNESSES:

*Francis M. Arde,*  
*C. Sedgwick*

INVENTOR:

*J. Flanagan*  
BY *Mum & Co*  
ATTORNEYS.



# UNITED STATES PATENT OFFICE.

JOHN FLANAGAN, OF NEWBURG, NEW YORK.

## HYDRANT-VALVE.

SPECIFICATION forming part of Letters Patent No. 238,879, dated March 15, 1881.

Application filed December 30, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN FLANAGAN, of Newburg, in the county of Orange and State of New York, have invented a new and useful  
5 Improvement in Hydrant-Valves, of which the following is a full, clear, and exact description.

The invention consists in combining with a hydrant-case having a side aperture and an apertured extension a cross-slotted cylinder  
10 provided with annular exterior packing-grooves and a valve sustained at the center by arms and carrying at the lower end a packing-disk, as hereinafter described.

In the drawings, Figure 1 is a vertical section of a hydrant of my improved construction. Fig. 2 is a horizontal section on line *y*  
15 *y* of Fig. 3, which is a vertical section, showing the valve and the waste-rings.

Similar letters of reference indicate corresponding parts.

A is the hydrant-case, which is made preferably in the two portions, as shown, the upper part attached to the lower by flanges and bolts, and the lower portion formed with waste-  
25 openings *a a* and a thread-extension, *b*, for connection to the main.

B is the valve-rod, consisting of a pipe fitted with waste-rings *c c* and valve *d*, and carrying the nozzle *d*, that projects through an elongated opening in case A, so that the nozzle can move up and down with the valve-rod.  
30 The elbow by which the nozzle *e* is connected is formed as a cap, closing the upper end of the pipe, and with a solid rod, *f*, to which is connected, by a swivel-joint, *g*, a screw-rod, *h*, that passes through a threaded aperture of the cap *i* on case A. The rod *h* has a hand-wheel for its operation to raise and lower the valve-rod. The rod B may, however, be fitted for  
40 operation by a cam or other suitable device.

The rings *c* are formed by a cylinder, slotted crosswise, and made with annular grooves exteriorly to receive packing-rings, so that the rings fit the case A snugly. With these  
45 rings is formed the stem and valve *d*, sustained at the center by arms *d'*. The lower end of the valve projects below the rings, and

carries a packing-disk to cover the aperture from the extension *b*, which aperture, as shown, is fitted with a screw-ring seat for the valve. 50  
The lower waste-aperture *a* is placed so that it is uncovered by the lower ring *c* when the valve *d* is closed and covered when the valve is raised. The upper aperture *a* is covered by upper ring *c* when the valve is open for  
55 the escape of water that may leak into case A; but this upper ring and aperture are not essential, and may be dispensed with.

It will be seen that when valve *d* is open the water will pass directly through the rings to  
60 the pipe-rod B without turns. When the valve is closed the water in the pipe B is free to waste by the lower opening *a*.

The valve and rings may be fitted with a solid screw-rod, or with a solid rod fitted with  
65 a handle for raising and a spring for forcing it down. The nozzle in those cases will be a fixture on case A, and the water will pass through ring *c* into the case. One ring and waste-aperture only will be used. 70

By this construction there is free passage for the water from the main by a single opening of ample size, and the waste-openings can be placed close to the bottom of the hydrant-case, so as to almost entirely empty the case. 75  
The parts are also simple and their manufacture inexpensive, and the hydrant can be repaired without digging up the case.

I am aware that it is not new to use a tubular rod with nozzle projecting through the hydrant-case; but

What I claim as new is—

The combination, with the case A, having aperture *a* and the apertured extension *b*, of the cylinder *c c*, having median cross-slot, annular packing-grooves on the outside, and a  
85 valve, *d*, sustained at the center by arms *d'*, said valve carrying at the lower end a packing-disk, as and for the purpose specified.

JOHN FLANAGAN.

Witnesses:

ALBERT C. SMITH,  
W. D. SPAULDING.