

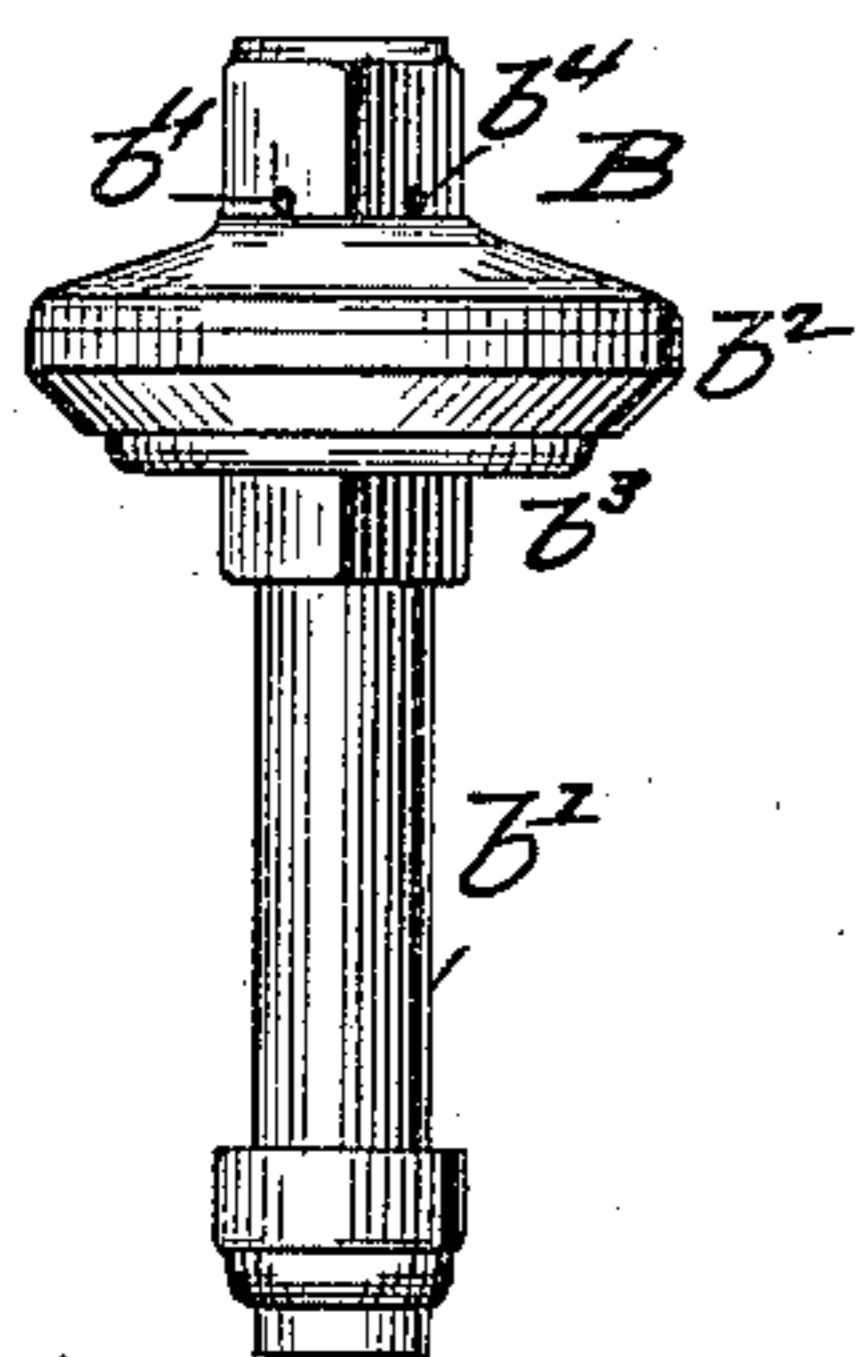
(No Model.)

P. WHITE.  
HYDRANT.

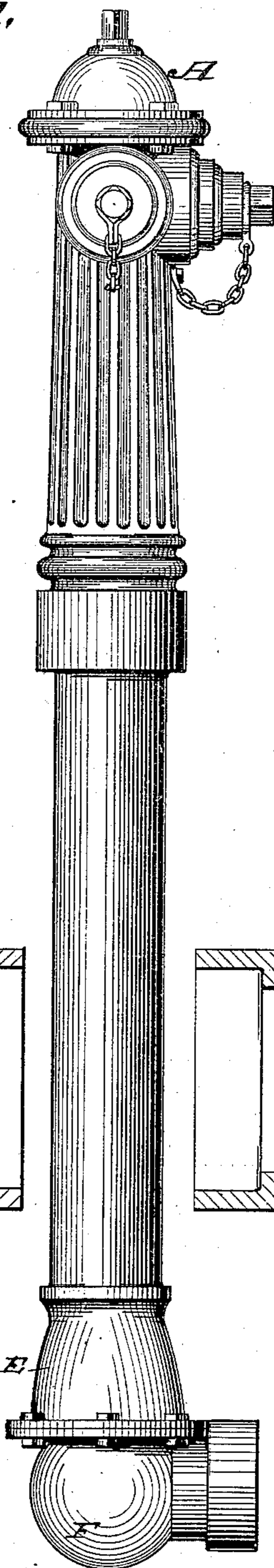
No. 312,686.

Patented Feb. 24, 1885.

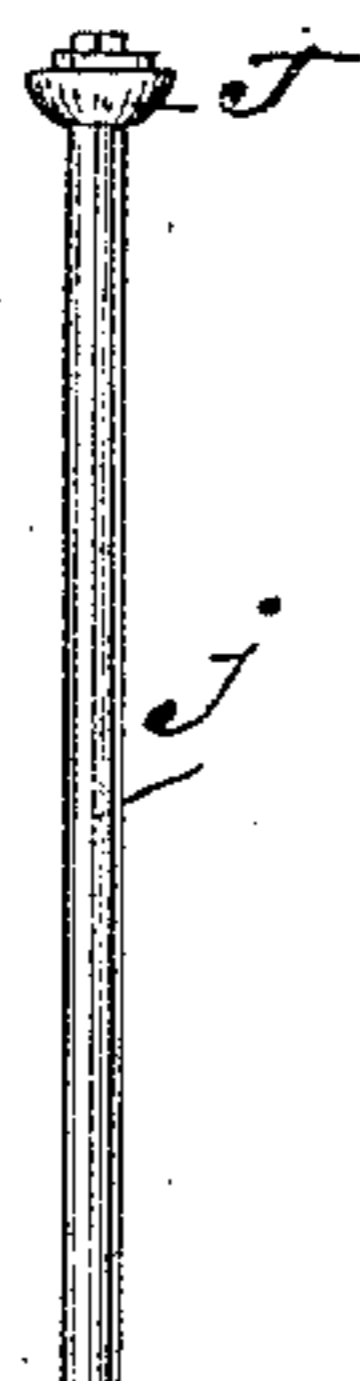
*Fig. 2.*



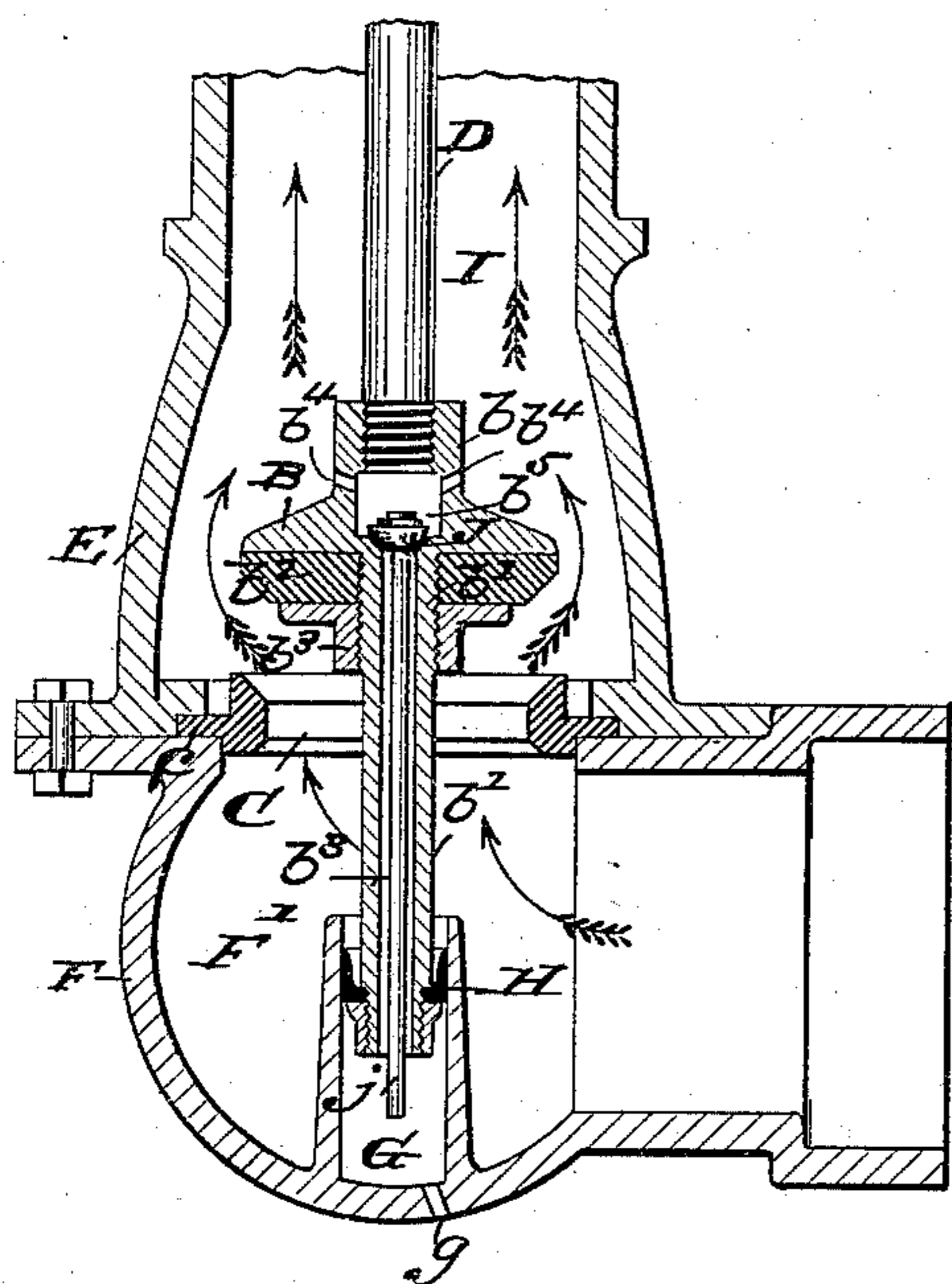
*Fig. 1.*



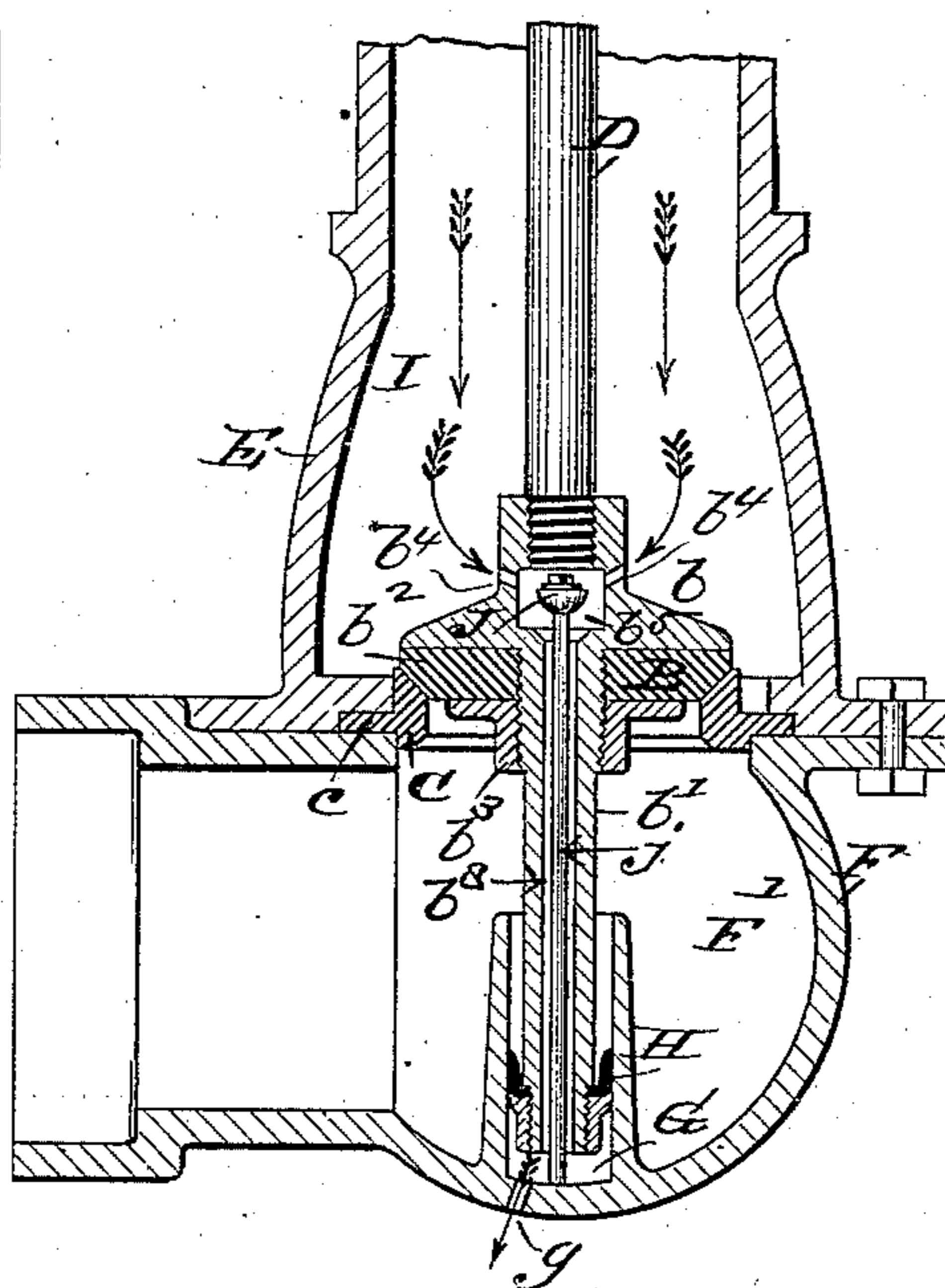
*Fig. 3.*



*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

PETER WHITE, OF ST. LOUIS, MISSOURI.

## HYDRANT.

SPECIFICATION forming part of Letters Patent No. 312,686, dated February 24, 1885.

Application filed May 31, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, PETER WHITE, of St. Louis, Missouri, have made a new and useful Improvement in Hydrants, of which the following is a full, clear, and exact description, reference being had to the annexed drawings, making part of this specification, in which—

Figure 1 is a side elevation of a hydrant having the improvement; Fig. 2, a side elevation of the main valve and the parts immediately therewith connected; Fig. 3, a side elevation of the waste-valve and stem; Fig. 4, a vertical section upon an enlarged scale of the lower portion of the hydrant, the main valve being opened and the waste-valve being closed; and Fig. 5, a vertical section similar to that of Fig. 4, but showing the main valve closed and the waste-valve opened.

The same letters of reference denote the same parts.

The present improvement relates to the construction of the main and waste valves and parts immediately therewith associated.

A, Fig. 1, represents a hydrant in which the present improvement is embodied. Aside from the improvement the hydrant is of the usual form.

B represents a main valve, and C represents the seat of the main valve.

D represents the main-valve stem.

The seat C is provided with a flange, *c*, and the seat is held in place by inserting the flange, substantially as shown, between the upright casing E and the shell F, which constitutes the lower end of the hydrant, and which incloses the chamber F', which constitutes the inlet to the hydrant-valve.

The main valve B consists, substantially, of what may be termed the "flange" *b*, having the stem *b'*, upon which the valve proper, *b''*, is secured by means of the collar *b'''*, substantially as shown in Figs. 4, 5. The stem D is screwed into the upper end of the flange *b*. The stem *b'* extends downward past the valve-seat C and into a chamber, G, which is formed within the chamber F'. The chamber G at its upper end opens into the chamber F', and from its lower end a small passage, *g*, leads through the shell F. The stem *b'* is provided with a

leather, H, which serves to pack the stem *b'* within the chamber G, and so as to prevent the water from passing from the chamber F' past the cup-leather into the lower end of the chamber G. The cup-leather H is suitably secured upon the stem *b'* by means of a suitable nut, *h*. The stem *b'* has a perforation, *b''*, extending longitudinally through it, the perforation at its lower end opening into the chamber G, and at its upper end opening into the waste-valve chamber *b'''*, which in turn communicates, by means of the passages *b''''*, with the chamber I above the main valve within the casing E.

J represents what I term the "waste-valve." It seats at the upper end of the perforation *b'''*, and it is provided with a stem, *j*, which extends downward through the perforation *b''* and beyond the stem *b'* sufficiently to enable its lower end to touch the bottom of the chamber G before the main valve B is seated. The effect of this is to cause the waste-valve to be unseated, as shown in Fig. 5, when the main valve is seated. The waste then flows from the chamber I through the passages *b''''* into the space *b'''*, surrounding the waste-valve, and thence through the perforation *b''* into the chamber G, and thence through the passage *g* to without the hydrant. In this manner a vent is provided for the waste water, so that it can drain from the hydrant. When the main valve is unseated, as shown in Fig. 4, the waste-valve J drops and seats and cuts off the escape of the water through the passages *b''*.

This improvement is suited also to a fire-plug.

I claim—

The combination, substantially as described, of the casings E F, the stem D, the valves B J, the perforated stem *b'*, the chambers I F' G *b'''*, and the leather H, said chamber G having the perforation *g*, and said chamber *b'''* having the perforation *b''*.

Witness my hand.

PETER WHITE.

Witnesses:

CHAS. D. MOODY,  
CORA E. HUNT.