

No. 746,125.

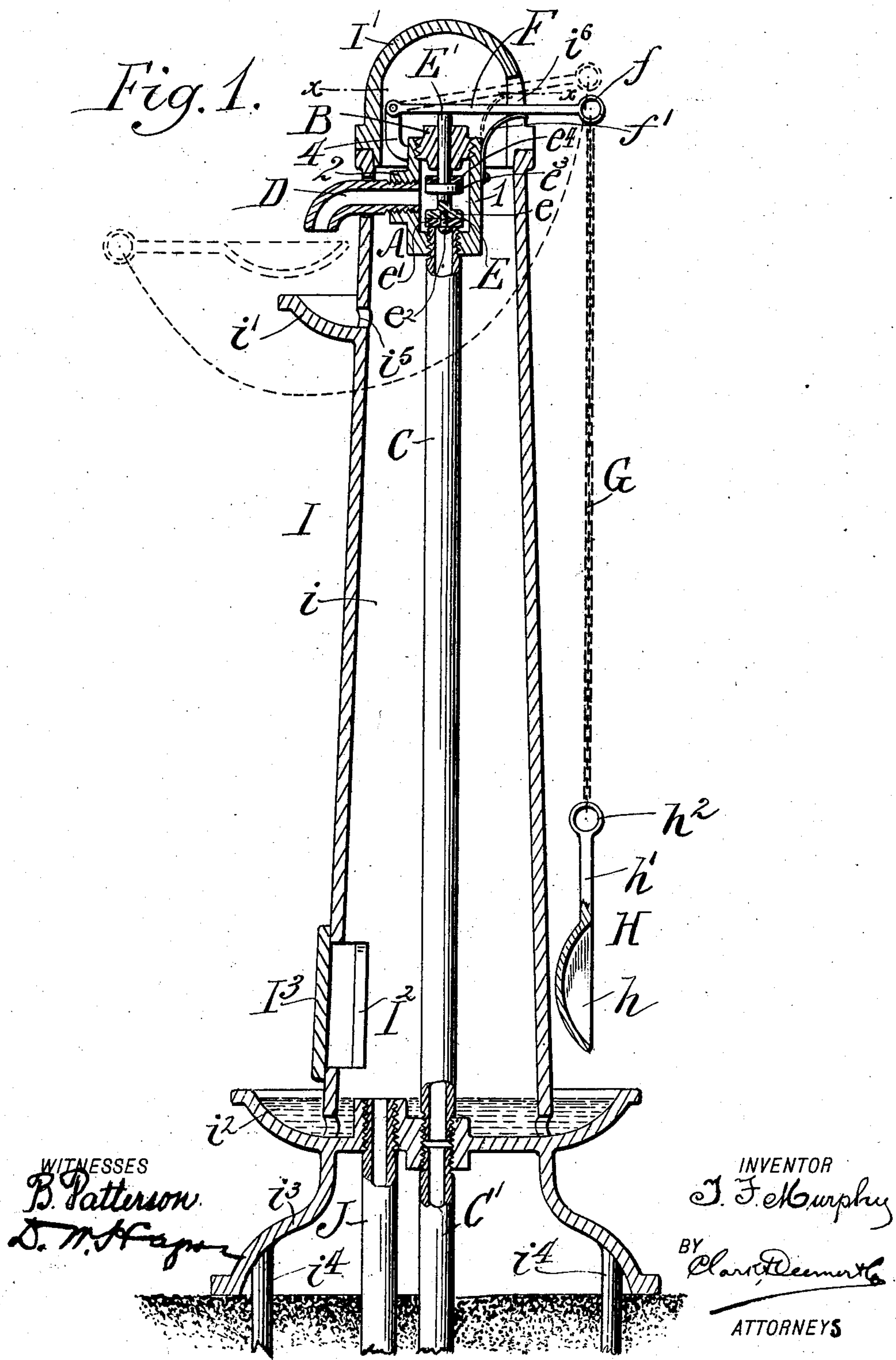
PATENTED DEC. 8, 1903.

T. F. MURPHY.  
AUTOMATIC HYDRANT.

APPLICATION FILED JAN. 16, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



No. 746,125.

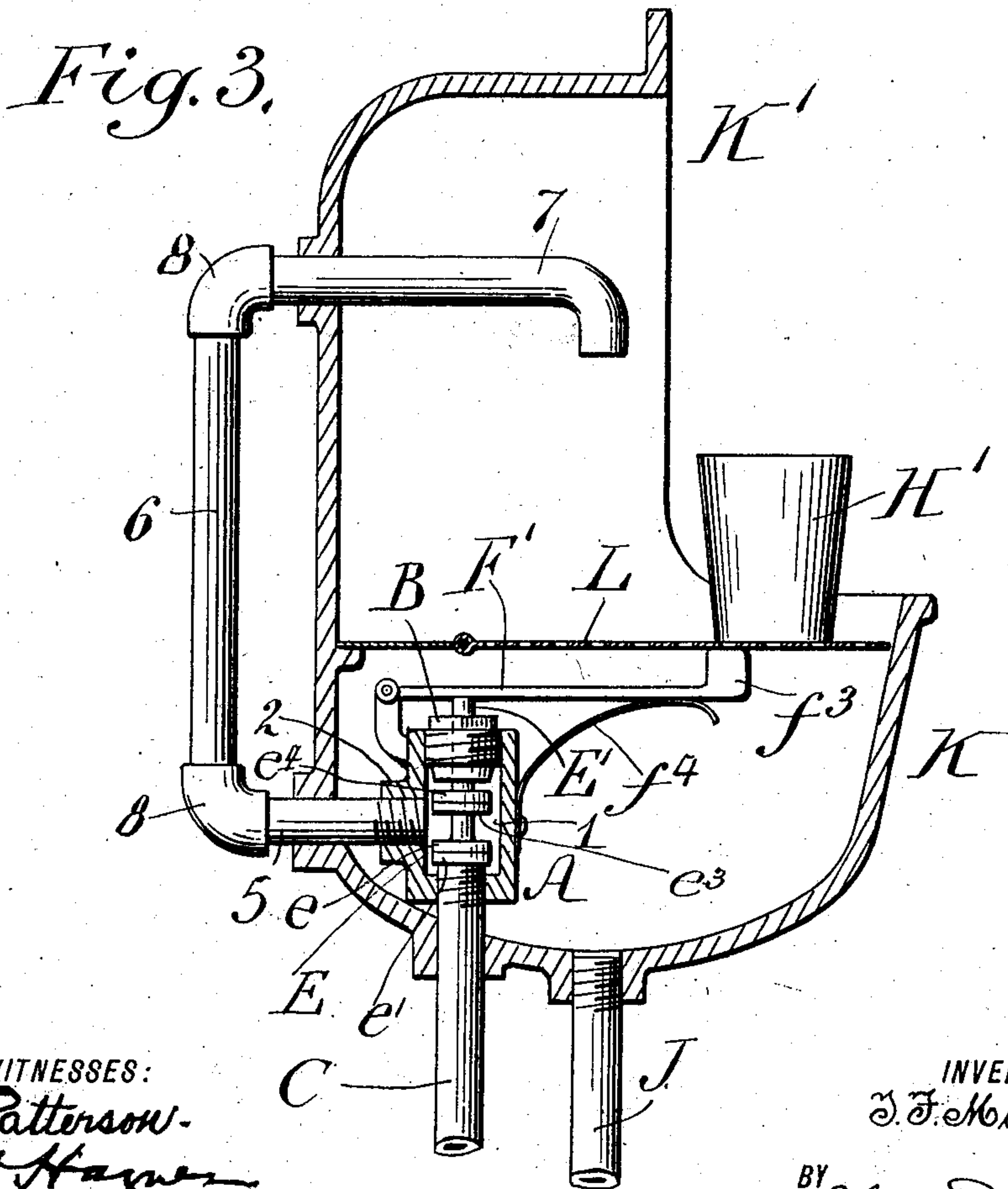
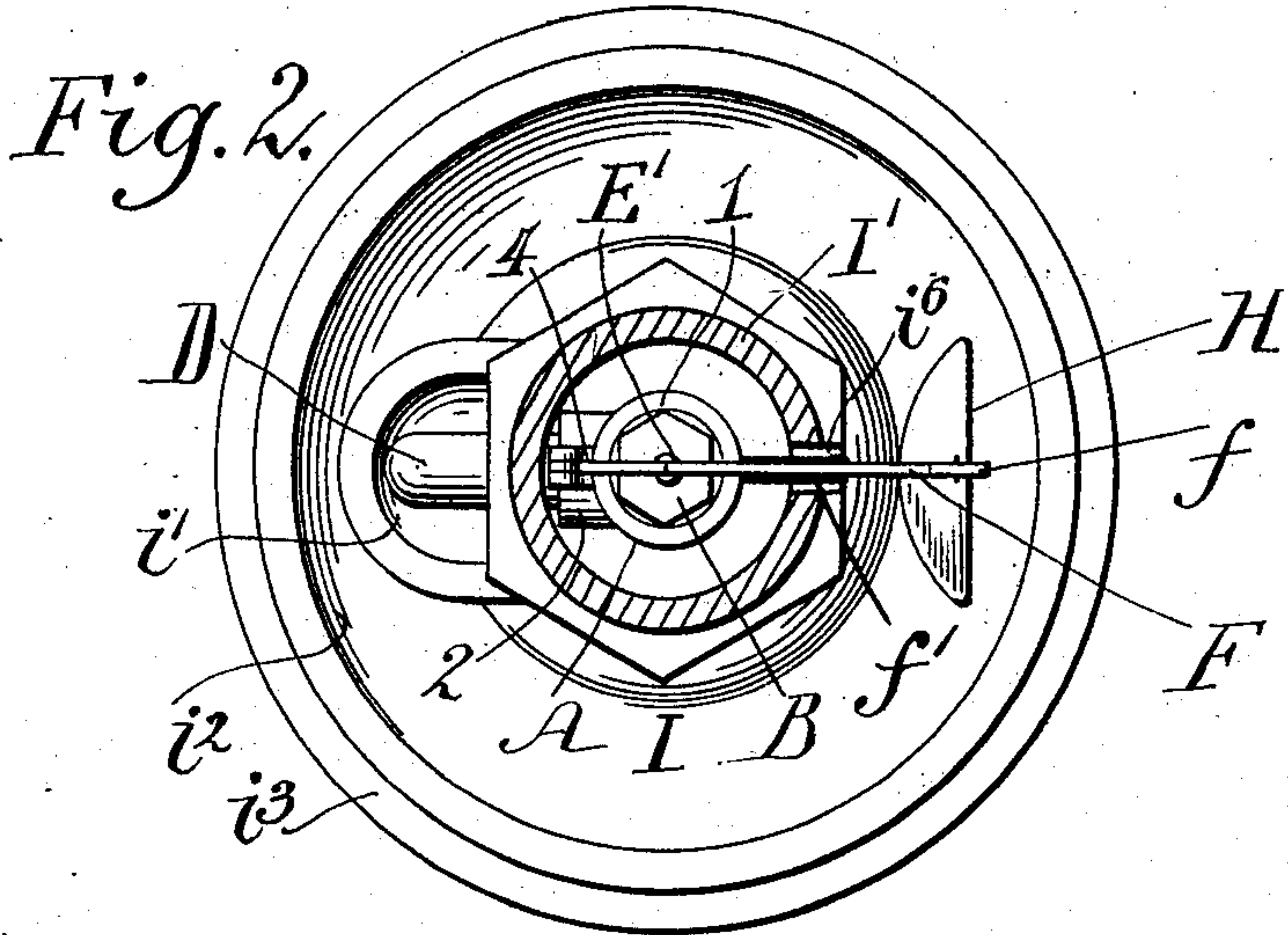
PATENTED DEC. 8, 1903.

T. F. MURPHY.  
AUTOMATIC HYDRANT.

APPLICATION FILED JAN. 16, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



WITNESSES:  
*B. Patterson.*  
*D. H. Hays.*

INVENTOR  
*T. F. Murphy*  
BY *Charles Deemer & Co.*  
ATTORNEYS



# UNITED STATES PATENT OFFICE.

THOMAS FRANCIS MURPHY, OF NEW YORK, N. Y., ASSIGNOR TO CHARLES P. KLEBER, OF NEW YORK, N. Y.

## AUTOMATIC HYDRANT.

SPECIFICATION forming part of Letters Patent No. 746,125, dated December 8, 1903.

Application filed January 16, 1903. Serial No. 139,263. (No model.)

*To all whom it may concern:*

Be it known that I, THOMAS FRANCIS MURPHY, a citizen of the United States, and a resident of New York, county of New York, and State of New York, have invented certain new and useful Improvements in Automatic Hydrants, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which similar characters of reference indicate corresponding parts.

This invention relates to automatic hydrants, and has for its object to provide an efficient and improved apparatus of this character which is especially adapted for use in public places, as parks, the construction being such as to prevent waste of water and readily supply any demand in required quantities.

The apparatus embodies principally a suitably-housed valve which is normally seated over the source of water-supply and a drinking vessel arranged in connection with the valve and of such relative proportion that its gravity overcomes the pressure from the main and acts to normally maintain said valve in closed condition, whereby when the vessel is lifted for use the valve automatically opens to supply water from the main, and when the vessel is released and its weight again allowed to act on the valve it closes the same to shut off the supply.

The invention will be hereinafter fully described, and specifically set forth in the annexed claims.

In the accompanying drawings, forming part of this specification, Figure 1 is a vertical sectional elevation of my improved hydrant; Fig. 2, a sectional plan view taken on the line  $x-x$  of Fig. 1, and Fig. 3 is a vertical sectional elevation illustrating a modification of construction.

In the drawings as illustrated by Figs. 1 and 2, A represents a metallic housing of T-shaped contour embodying the vertical cylindrical part 1 and laterally-extended part 2. Threaded into the upper end of the cylinder 1 is a plug B, and the lower end of said cylinder is threaded to a supply-pipe C, which communicates with the source of water-supply. A tubular spout D is threaded into the lateral extension 2 for the discharge of water.

Seated on the upper end of the supply-pipe

C is a valve E, which embodies the metallic disk  $e$  and rubber or other flexible disk  $e'$ , the latter being held on the disk  $e$  by means of the screw  $e^2$ , whereby it may be renewed when worn. Extended from the disk  $e$  is a stem  $E'$ , which is ground to fit within a vertical central opening leading through the plug B to allow vertical movement of the stem within the plug. Located on the stem  $E'$  above the disk  $e$  is a fixed collar  $e^3$ , and around the stem  $E'$  and resting upon the upper surface of the collar  $e^3$  is a flexible washer  $e^4$ , composed of rubber or other suitable material. This washer acts to prevent leakage around the valve-stem through the plug B when the valve E is opened for discharge of water through the spout D.

Extended diametrically across and resting upon the top of the valve-stem  $E'$  is a lever F, which is pivoted to a bifurcated extension 4, which forms, preferably, an integral part of the housing A. The outer end of the lever F is provided with an eye  $f$ , which engages one end of a chain G. This said chain is in connection with a drinking vessel H, which embodies the bowl or cup  $h$ , handle  $h'$ , and eye  $h^2$ , which is secured to the lower end of the chain G.

The above-described drinking vessel H is composed, preferably, of metal, and it is of sufficient weight to overcome by its gravity the pressure from the water-main and keep the valve E seated over the outlet of the supply-pipe C when said vessel is in suspended position, as illustrated by full lines, Fig. 1 of the drawings; but when the vessel is lifted to position illustrated by dotted lines, Fig. 1, the pressure from the main forces the valve E upwardly, causing the washer  $e^4$  to rest against the lower end of the plug B to prevent leakage and at the same time allowing free outflow of water through the spout D.

Incasing the above-described construction is a hollow standard I, embodying a tapering upright  $i$ , the drip-basin  $i'$ , circular dog-trough  $i^2$ , and base  $i^3$ , suitable anchor-posts  $i^4$  being provided to keep the structure in rigid upright position. The top of the standard I is maintained normally closed by means of the cap  $I'$ , having the slot  $i^5$  to accommodate lever F. This cap is removable for the purpose of repairing the hydrant.



An outlet-opening  $i^5$  is extended from the basin  $i'$  into the upright  $i$  to allow waste water to drip into the dog-trough  $i^2$ . To prevent overflow of the dog-trough, a discharge or waste pipe J is extended through the bottom of the dog-trough to a point slightly below the upper level thereof. The supply-pipe C communicates with an auxiliary pipe C', which leads from the main to provide a continuous supply of water to the device.

As a means of access to the inner part of the trough  $i^2$ , whereby the same may be cleaned, a doorway I<sup>2</sup> is formed through the standard I and provided with a normally closed door I<sup>3</sup>.

To assure instant opening of the valve E when the vessel H is lifted, a spring, as  $f'$ , is located beneath the lever F to lift said lever and allow free upward movement of said valve and its stem; but the nature of this spring is such that its tension is readily overcome by the gravity of the vessel H.

In the modification of my invention illustrated by Fig. 3 of the drawings the hydrant is housed within a bowl K, having an overhanging hood K', and the spout embodies the tubular sections 5, 6, and 7, held together by suitable elbows 8. This housing is adapted to be set within a recess of a wall of a building, car, &c., whereby the bowl only extends outwardly. In this structure the lever F' is provided with an upwardly-extended part  $f^3$ , which bears against the under part of a hinged screen or drip-plate L, whereby said lever by the action of its spring  $f^4$  will lift the drip-plate to allow the valve E to open by pressure from the main when no weight is on the drip-plate L. The weight in this construction, as in the other previously described, embodies a cup or drinking vessel, as H', which normally rests upon the drip-plate LL to keep the valve closed; but when said vessel is lifted the valve automatically opens to allow discharge of water through the spout 7.

In the application of the invention to insure perfect working thereof care is taken to so construct the outer parts that no projections or ledges are presented to support the vessel, which acts as a weight to keep the valve closed, whereby it must of necessity be suspended by its chain when not in use. Thus in the construction first described the cap I' is rounded, so that the vessel H could not be placed thereon, and in the latter-described construction there is no place to normally support the vessel other than the drip-plate which rests upon the lever F'.

In the operation and use of the device it is obvious that the simple act of lifting the drinking vessel causes the valve to open, whereby the water will run until the vessel is again allowed to exert its weight against the pressure from the main. Thus I provide an automatic hydrant calculated to prevent wilful or careless waste of water, while at the same time an efficient means for supply is provided.

I do not confine myself to the specific details

of mechanical construction as herein shown and described, as it is obvious that under the scope of my invention I am entitled to slight structural variations.

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

1. In a drinking-fountain, the combination, with a supply-pipe leading from the main, a housing at the upper end thereof, having a discharge-spout, a valve having a vertical stem and a plug engaging around said stem, of a pivoted lever extended across and resting on the valve-stem, and a weight embodying a drinking vessel, and means whereby said weight is maintained in such normal relative arrangement with the said lever as to keep the valve closed over the outlet end of the supply-pipe, and a casing for the parts, substantially as shown and described.

2. In a hydrant, the combination, with a supply-pipe leading from the main, a housing at the upper end thereof supplied with a vertical removable plug and a laterally-extended discharge-nozzle, a double valve having a vertical stem extended through said plug and two flexible surfaces to be seated respectively against the discharge end of the supply-pipe and the inner end of the plug, of a pivoted lever extended across and resting on the valve-stem, and a weight embodying a drinking vessel so connected with the lever that its gravity normally presses the lever against the valve-stem to maintain the valve in closed condition, and a spring to lift the lever when the weight is lifted by a consumer, and a casing inclosing the parts, substantially as shown and described.

3. In a hydrant, the combination with a supply-pipe leading from the main, a housing at the upper end thereof supplied with a vertical removable plug, and a laterally-extended discharge-nozzle, a double valve having a vertical stem extended through said plug and having two flexible surfaces to be seated alternately against the discharge end of the supply-pipe and the inner end of the said plug, of a pivoted lever extended across and resting on the valve-stem, and a weight embodying a drinking vessel, and a chain connecting the free end of the pivoted lever to said vessel, the weight of the drinking vessel being such that, when suspended, its gravity maintains the valve in closed condition, and a hollow standard inclosing the supply-pipe and housing, said standard having a removable cap with a slot therein through which the end of the said lever extends, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 12th day of January, 1903.

THOMAS FRANCIS MURPHY.

Witnesses:

WM. A. THOMPSON,

JOHN WM. HUTCHINSON.