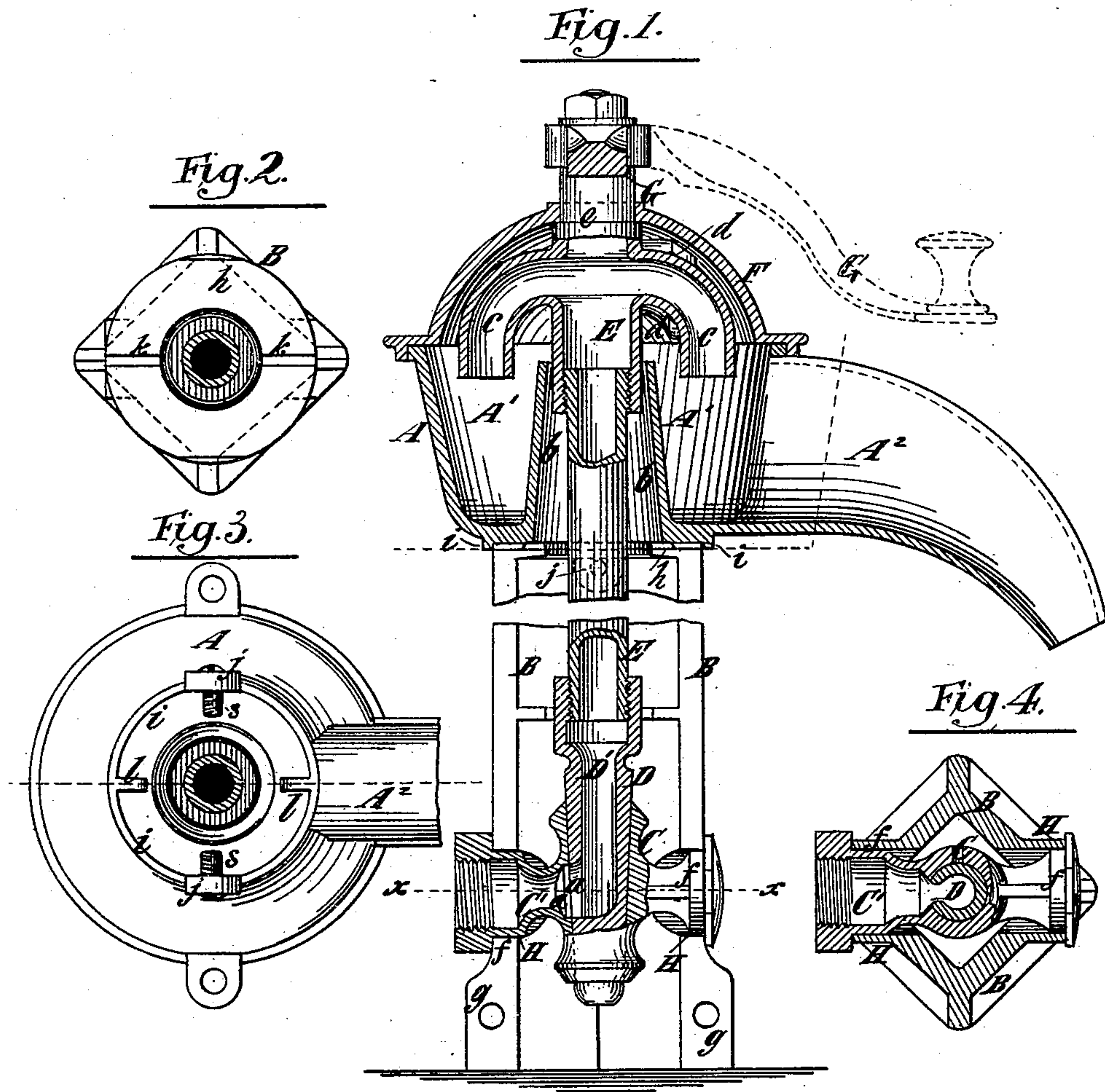


(No Model.)

J. BROUGHTON.  
Hydrant.

No. 236,542

Patented Jan. 11, 1881.



Witnesses:-

Louis M. F. Whitehead.  
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# UNITED STATES PATENT OFFICE.

JOHN BROUGHTON, OF BROOKLYN, NEW YORK.

## HYDRANT.

SPECIFICATION forming part of Letters Patent No. 236,542, dated January 11, 1881.

Application filed June 3, 1880. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN BROUGHTON, of the city of Brooklyn, in Kings county and State of New York, have invented certain new and useful Improvements in Hydrants, of which the following is a specification.

My invention relates to the casings of hydrants, and also to certain combinations of such casings and valves, whereby simplicity, economy of construction, and convenience of operation are secured.

The invention particularly relates to hydrants in which are employed stop-cocks having hollow open-headed plugs and stand or delivery pipes attached to and extending upward in line with said plugs, through which the water is discharged, and which serve to turn the plugs to let on or shut off the water.

One feature of my invention consists in the combination, in a hydrant, of a rotating or partly-rotating vertical stand or delivery pipe having one or more lateral outlets at or near its upper end, and a casing in the top of which is a stationary annular water-receiver having a fixed spout.

Another feature of my invention consists in the combination, with the above, of a cap or cover for the hydrant-top constructed with a downwardly and inwardly projecting lug, against which the lateral outlet of the stand or delivery pipe strikes as the latter is turned, and which forms a stop therefor. The said stand or delivery pipe, or a continuation thereof, preferably projects through the cap or cover of the hydrant-top, to afford provision for the attachment of a handle or key.

Another feature of my invention relates to hydrants in which the vertical column of the case is constructed of two vertically-united sections, between which the shell of the stop-cock is clamped and supported; and it consists in a novel method of attaching the two column-sections to the hydrant-top.

In the accompanying drawings, Figure 1 represents a central vertical section of a hydrant embodying my invention. Fig. 2 represents a plan of the united sections, forming the column of the case. Fig. 3 represents an inverted plan of the under side of the top of the hydrant; and Fig. 4 represents a transverse section upon the dotted line *x x*, Fig. 1.

Similar letters of reference designate corresponding parts in all the figures.

A designates the top of the casing of the hydrant, and B designates the vertical column. 55

The stop-cock here shown is of novel construction, but forms no part of the present invention, it being made the subject of another application for Letters Patent. A brief description thereof is, however, necessary. 60

C designates the shell of such cock, and D the plug thereof. The water-inlet C' communicates, through ports *a a*, with a cavity, D', in the plug, the said plug being hollow and open at its upper end. 65

E designates a stand or delivery pipe attached to the open end of the plug D, and extending upward in line therewith. The said pipe serves not only for the discharge of water, but also as a means of controlling the passage of water through it, as through it the plug D may be turned to let on or cut off the flow of water. 70

The top A is constructed with a socket, *b*, projecting upwardly from the bottom thereof, thereby forming an annular water-receiver, A', having a fixed outlet-spout, A<sup>2</sup>. 75

The stand or delivery pipe E, which projects upward through the socket *b*, is provided with one or more lateral outlets, *c*, (here represented as two in number,) which deliver the water into the annular receiver A', from which it is finally delivered through the fixed spout A<sup>2</sup>. 80

The top A is furnished with a cap or cover, F, through which the pipe E, or a continuation thereof, preferably projects, to afford provision for the attachment of a handle, G, by which the pipe and its attached plug may be rotated, or partially rotated, to let on or cut off the flow of water. The said cap or cover is preferably provided with a downwardly-projecting lug, *d*, against which the outlets *c* strike as the pipe E is turned, and which forms a stop therefor. 85

The pipe E is represented as constructed with a shoulder, *e*, bearing against the under side of the cap or cover F, and serving to hold the plug D tightly within its shell, and dispensing with the nut usually employed to hold the plug of a cock in its seat. This construction not only simplifies the making of these 95 100



cocks, but it enables the pipe E and the plug D to be taken out, if necessary, by simply removing the cap or cover F, which is a very great advantage, as it avoids digging up the hydrant in many cases.

As here represented, the column B of the casing is composed of two vertically-united sections, which are cast separately without cores and afterward secured together. These column-sections are constructed so that when united they form sockets H at the vertical joint, formed half in each section, and adapted to receive the shanks *f* of the cock-shell C, which is clamped and supported between them. This construction simplifies the construction of the hydrant, and prevents the joints of the water-pipe from being strained by force applied to the plug to turn it. The column-sections are provided with lugs or flanges *g* at their lower ends, for the reception of bolts for securing them together; but as here shown the column has a circular flange or projection, *h*, at the top, which is inserted within a circular flange or rim, *i*, upon the bottom of the top A. This flange or rim *i* prevents the lateral separation of the column-sections, and they may be secured to the top by means of bolts or screws *s*, inserted through lugs or ears *j* on the top A, and tapped into the sides of the column-sections.

In order to provide for readily centering the column in the flange or rim *i*, so as to bring the bolt-holes in the ears or lugs *j* in line with corresponding holes in the column-sections, I have represented the top of the column as furnished with grooves or notches *k* at the joint between the sections, and the top as provided with lips or tongues *l*, adapted to enter said grooves or notches and prevent the top from turning upon the column.

The peculiar construction of the cock, with its hollow open-ended plug and the stand or delivery pipe connected to the end of the plug, as also the manner of supporting or holding

the shell or body of the cock, form no part of my invention, but are the subjects of other applications for Letters Patent.

By my invention I greatly simplify the construction of hydrants, and also provide for the ready removal of certain parts for inspection or repair.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, in a hydrant, of a rotating or partly-rotating vertical delivery-pipe, having one or more lateral outlets at its upper end, and a casing, in the top of which is a stationary annular receiver having a fixed spout, substantially as herein described.

2. The combination, with a hydrant-top constructed with an annular water-receiver and fixed spout, of a stand or delivery pipe projecting upward through said receiver, adapted to be turned to control the passage of water through it, and provided with one or more lateral outlets, and a cap or cover for said top having a downwardly-projecting lug, forming a stop to the turning of the stand or delivery pipe, substantially as specified.

3. The combination, with the hydrant-top A, constructed with a projecting annular flange or rim, *i*, and lugs *j* upon its under face, of a column, B, composed of two vertically-united sections, inserted into said flange or rim, and bolts or screws *s*, inserted through the lugs *j*, and screwing into the column, for holding said parts together, substantially as specified.

4. The combination of the top A, constructed with the flange or rim *i*, lugs *j*, and lips or tongues *l*, and the column-sections inserted into said flange or rim, and having grooves or notches *k*, receiving said lips or tongues, substantially as specified.

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Witnesses:

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