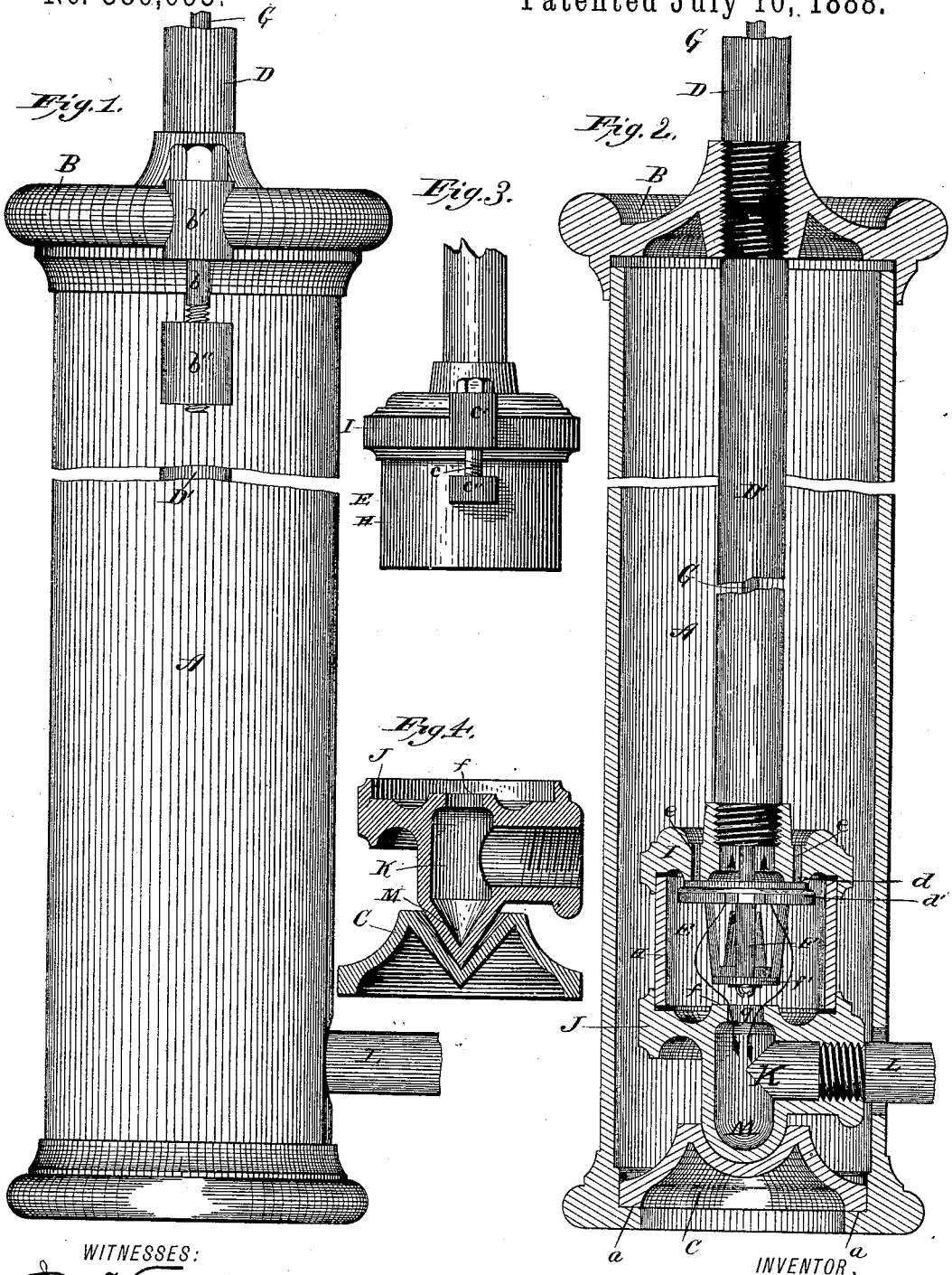
(No Model.)

A. J. TYLER.

HYDRANT.

No. 386,095. Patented July 10, 1888.



WITNESSES:

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HYDRANT.

SPECIFICATION forming part of Letters Patent No. 386,095, dated July 10, 1888.

Application filed May 4, 1888. Serial No. 272,793. (No model.)

To all whom it may concern:

Be it known that I, AARON J. TYLER, a citizen of the United States, residing at Albion, in the county of Orleans and State of New York, have invented certain new and useful Improvements in Hydrants, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a side elevation of my improved hydrant; Fig. 2, a vertical longitudinal sectional view of the same; Fig. 3, a side elevation of valve-casing and lower end of stand-pipe, showing the method of attaching the cylinder to the head of valve-casing; and Fig. 4 a sectional view of lower head and base-plate, showing slight modifications in the method of pivotally supporting the said lower head.

This invention is designed to produce a cheap, simple, and durable hydrant that may be readily withdrawn from the earth for repairs whenever desired without making an excavation for that purpose; and it consists in certain novel features of construction and arrangements of parts that will be fully hereinafter set forth and claimed.

Referring to the accompanying drawings by letter, A designates a vertical cylinder or casing, which is adapted to be buried in the earth and serve as a frost-case and receptacle for the hydrant. This casing is provided with an internal shoulder, *a*, at its lower end, and has fitted over its upper open end a flanged cap or head, B, which is provided with a central screw-threaded passage. Inserted in the casing A, and resting loosely upon the internal annular flange, *a*, at its lower end, is a circular cast base-plate, C, provided in the center of its upper side, preferably, with a concave depression. The cap B is secured over the upper end of the casing by means of vertical bolts *b*, which pass through apertured ears *b'*, formed upon the said cap, and into screw-threaded ears *b''*, cast on the exterior of the said casing.

Screwed into the central screw-threaded opening in the cap B are the upper and lower sections of the stand-pipe D D', the latter section extending down into the casing and provided with external screw-threads on its lower end. Screwed to the lower end of stand-pipe is the valve-casing E, in which works the double-seated skeleton-valve F, this valve being operated by means of the vertical valve-rod G, attached to valve and extending up through stand-pipe. This valve-casing consists, preferably, of a short cylinder, H, bolted to a flanged head, I, by means of vertical bolts *c*, which pass through ears *c'*, formed upon the periphery of the head, and into screw-threaded ears *c''*, cast integral with the said cylinder. The head I has a circular valve-seat, *d*, formed on its under side, against which seat the upper seat, *d'*, of the valve F is adapted to rest when the said valve is open, as shown in Fig. 2, and close the waste-apertures *e*, formed through the said head. The lower end of the cylinder is inserted in a flanged head, J, and is held firmly therein by means of the bolts *b*, journaled in the ears on the cap B. The upper face of this head J is provided with a central valve-seat, *f*, around the inlet-opening *g*, formed through the head. When the valve F is lowered, it will be observed that its lower seat, *f'*, will rest against the seat *f* and close the opening *g*, shutting off the flow of water through the hydrant and opening the waste-apertures to let the waste water in stand-pipe run off into the casing A and from there into surrounding earth, as usual.

Formed on or secured to the under side of the head J is an elbow, K, the horizontal arm of which has screwed into it a pipe, L, which passes out through an opening in the casing to the water-main, the latter not being shown. Formed integral with the elbow K is a convex extension or knob, M, which fits into the central concave depression in the base-plate C, and is held therein by means of the above-mentioned bolts *b*.

It is evident that instead of making the knob M convex and the depression in plate C concave, I may make them conical, as shown in Fig. 4, without departing from my invention in the least. It is also obvious that instead of forming the cap B flat, as I have shown it, I may extend it up and make it more ornamental, should I so desire.

I wish it distinctly understood that I do not claim any features in this application that are described and claimed in an application filed by me on the 4th day of May, 1888, and bearing the serial number 272,792. I have not de-

scribed the valve F and its operation more fully in this specification for the reason that it is fully described and claimed in the above-mentioned application filed by me.

When it is desired to remove the hydrant for repairs, all that is necessary to do is to remove the bolts *b*, when the cap, stand-pipe, valve, and valve-casing may all be lifted out of the casing A, the water from the main of course having been first cut off. When the parts are put back in the casing again, all that is necessary to do is to see that the lower end of the cylinder of the valve-casing is inserted in the flanged head J, when the bolts *b* may be tightened up, the hydrant being then ready for use. The mere act of tightening up the bolts *b* serves to bind all the parts together, the lower head, J, (by reason of the convex knob M resting in its concave depression,) readily accommodating itself to the valve-cylinder, as is evident. It will be obvious that this method of pivotally seating the lower head, J, whereby it is permitted to adjust itself to any angle which the valve-cylinder might assume, is the essential feature of this invention.

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

1. The combination, with the casing, the cap therefor having the depending stand-pipe attached to it, a valve-casing attached to the lower end of stand-pipe, bolts *b*, for drawing the parts together, and a base-plate in the bottom of the casing, of a flanged head, J, pivotally supported on this base-plate and provided with an elbow, K, substantially as described.

2. The combination, with the casing, base-plate inserted in the bottom of same and provided with a central depression, a cap placed over the upper end of the casing and provided with a depending stand-pipe, D′, a valve-casing attached to lower end of stand-pipe, and tightening-bolts *b*, of a flanged head, J, for the reception of the lower end of the valve-casing, the said head being provided with an elbow and a central knob on its under side, the knob being adapted to rest in the depression in the base-plate and pivotally support the said head J, substantially as described.

3. The combination of a casing, a base-plate in the bottom of the same provided with a central depression, a head, J, provided with a knob on its lower side adapted to rest in the said depression in the base-plate, whereby the head is pivotally supported, a valve-casing and stand-pipe, and means for forcing the said stand-pipe and valve-casing down upon the said head J, substantially as described.

4. The combination of a casing provided with an internal flange, *a*, near its bottom, a base-plate, C, inserted in the casing and resting upon the flange *a*, this plate having a central depression in its upper face, a lower flanged head, J, provided with an elbow, K, and a knob, M, the latter resting in the depression in the base-plate and pivotally supporting said head J, an inlet-pipe, L, attached to elbow K, a valve-cylinder, H, inserted in the said flanged head J, a head, I, bolted to the cylinder H, a stand-pipe secured to the head I, a cap secured to the stand-pipe, and tightening-bolts, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

AARON J. TYLER.

Witnesses:

JNO. S. FINCH, Jr.,

C. D. DAVIS.