

S. RAINEY.
Fire-Hydrant.

No. 206,611.

Patented July 30, 1878.

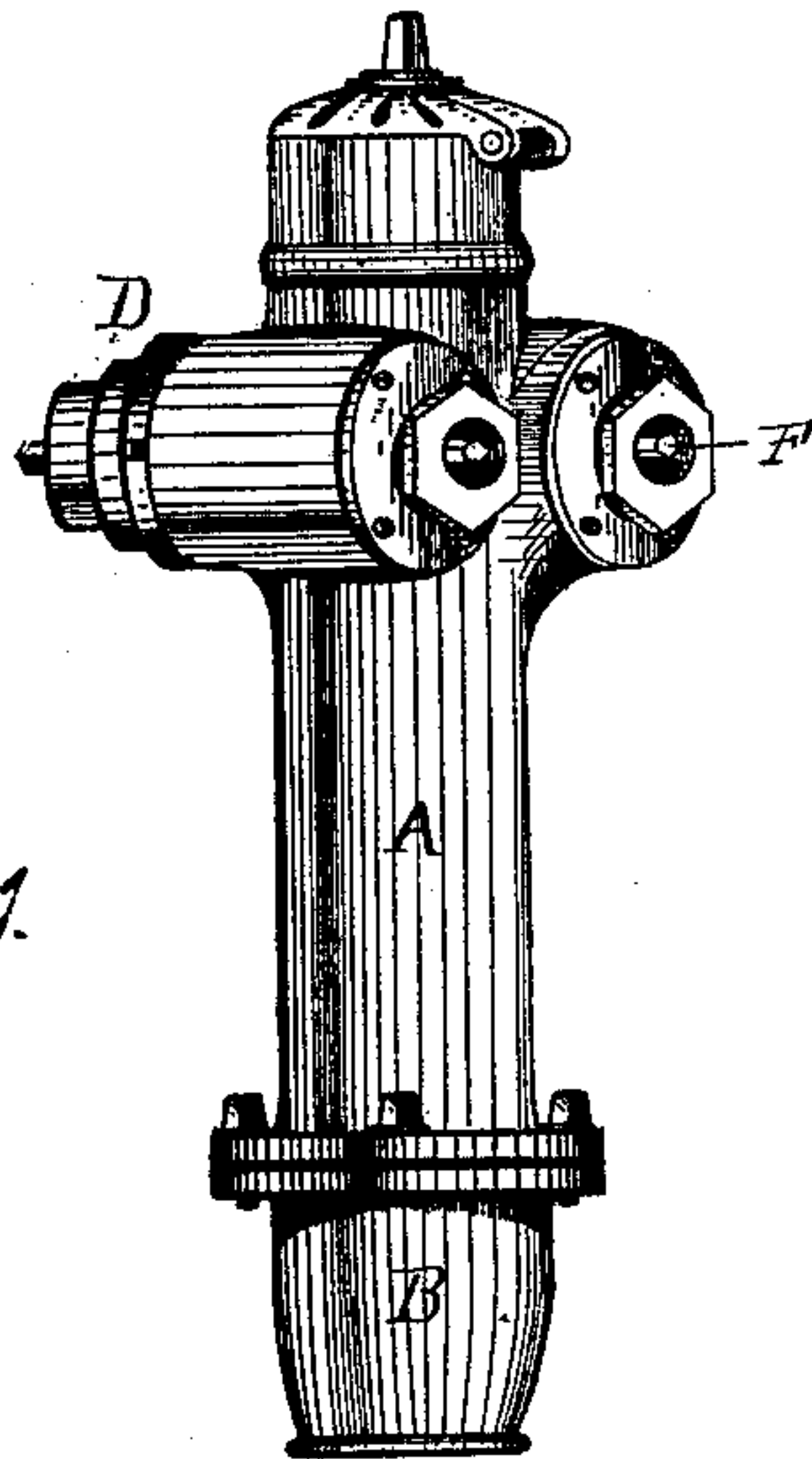


Fig. 1.

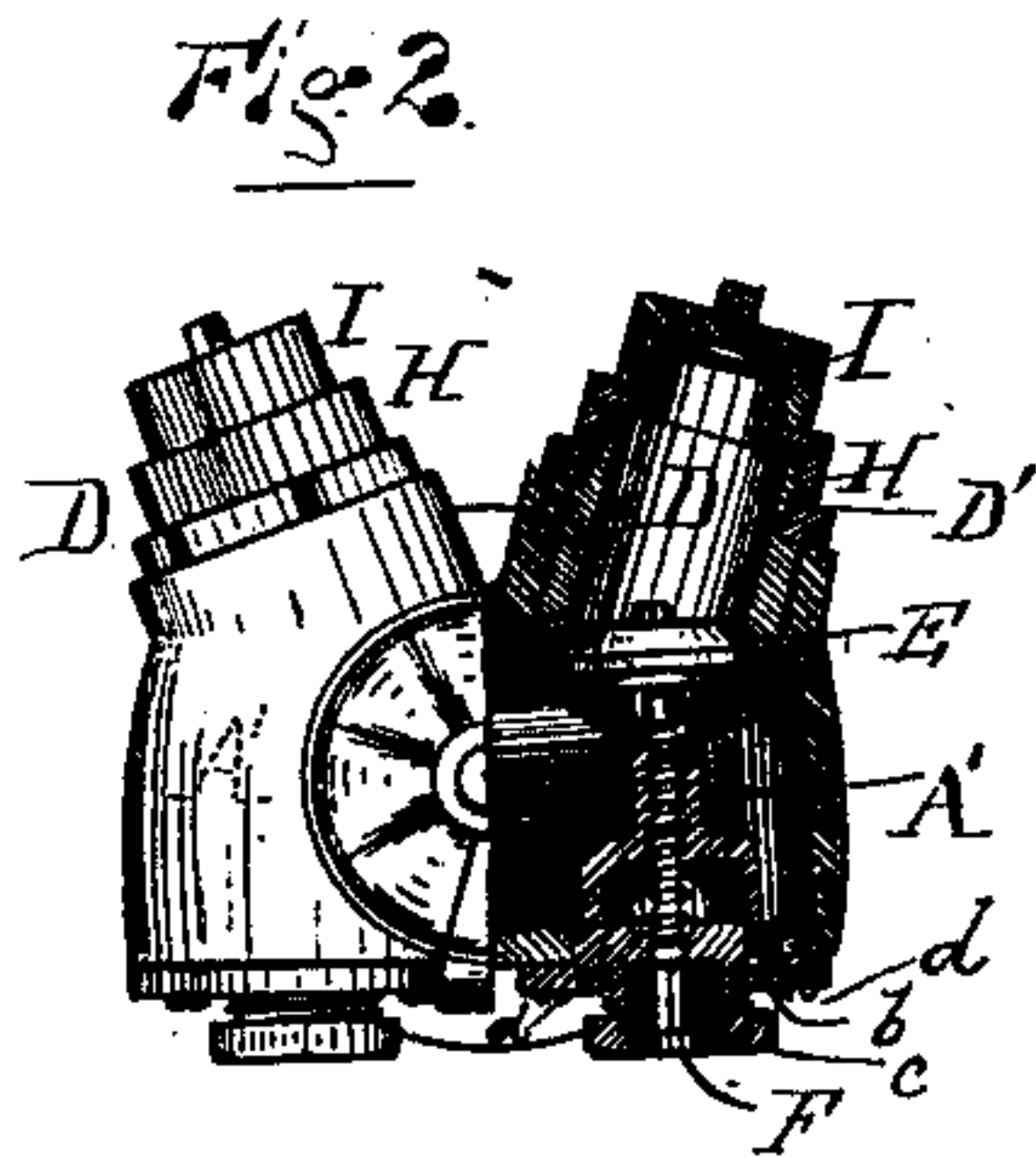


Fig. 2.

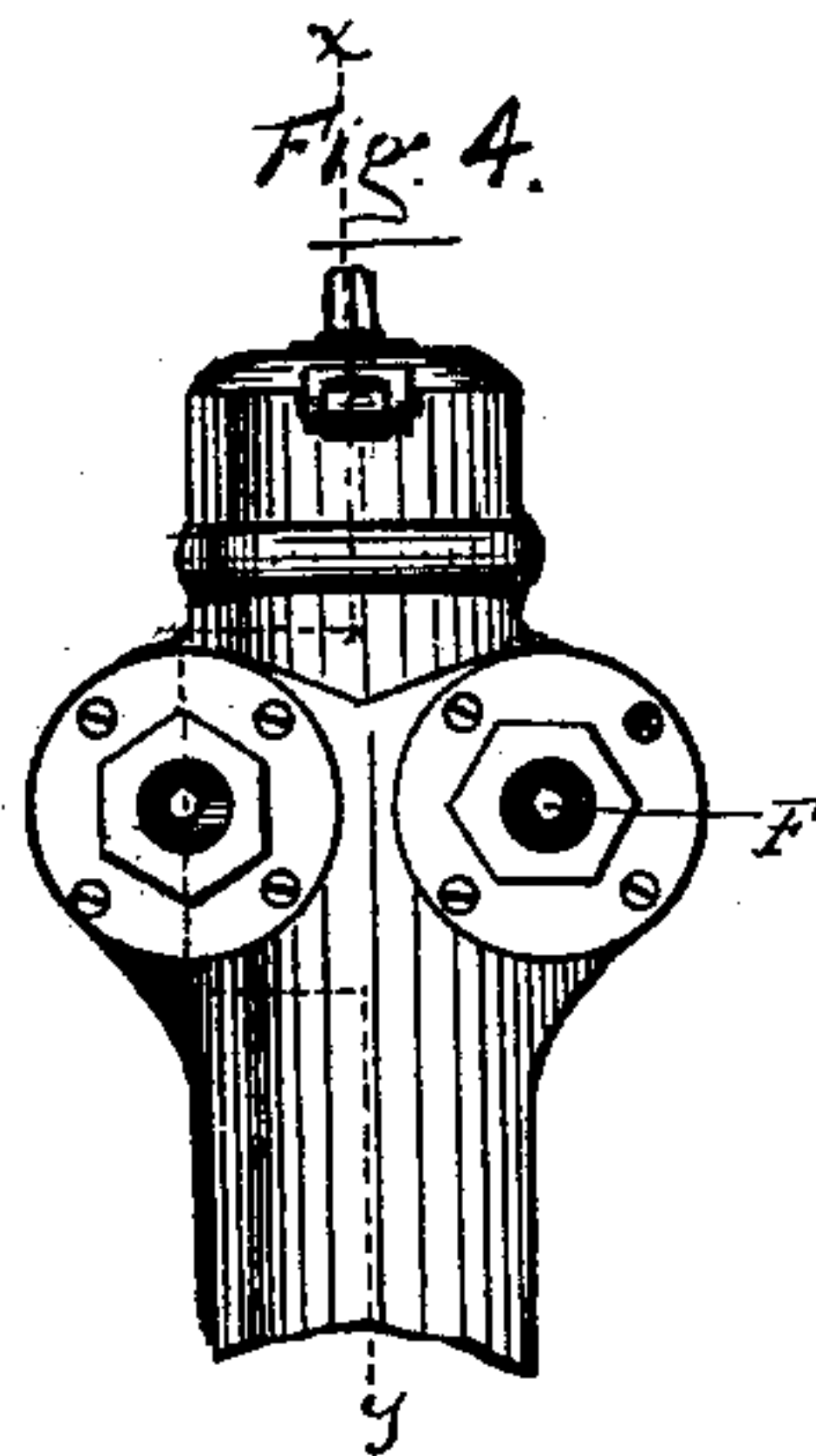


Fig. 4.

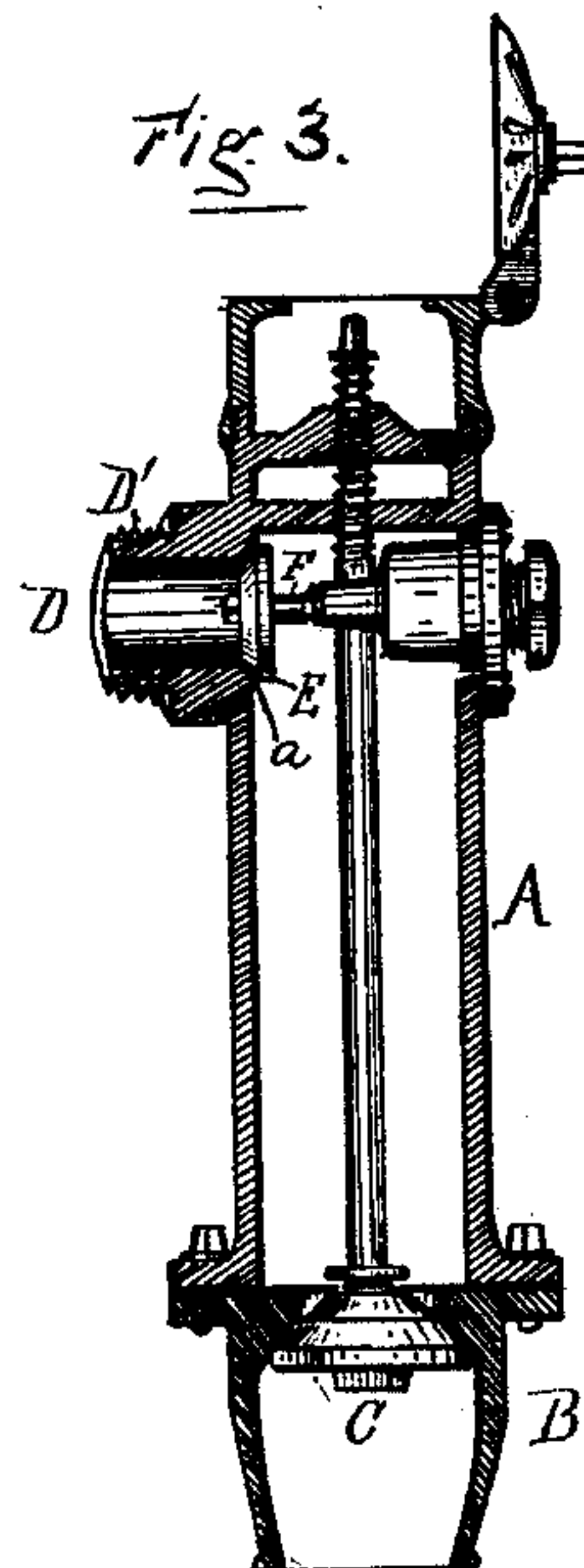


Fig. 3.

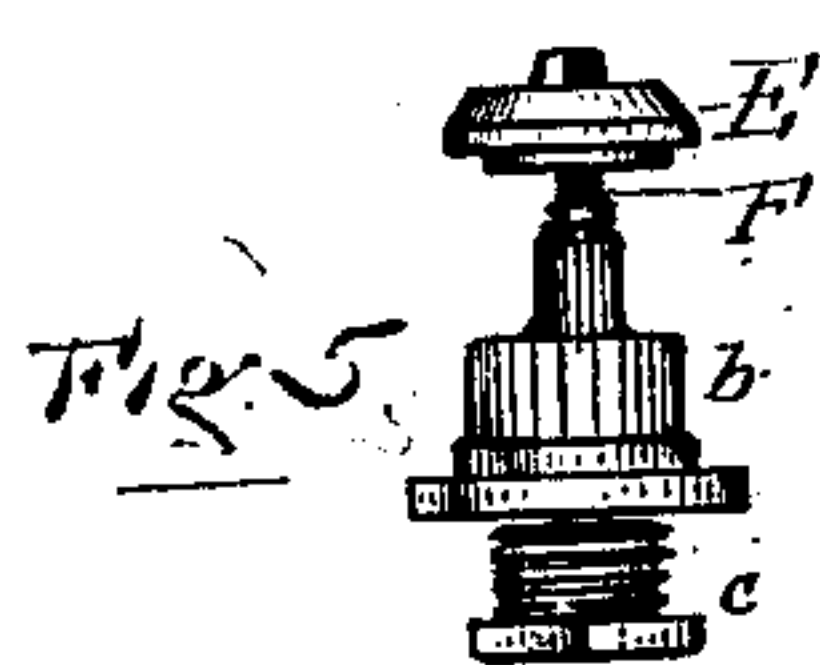


Fig. 5.

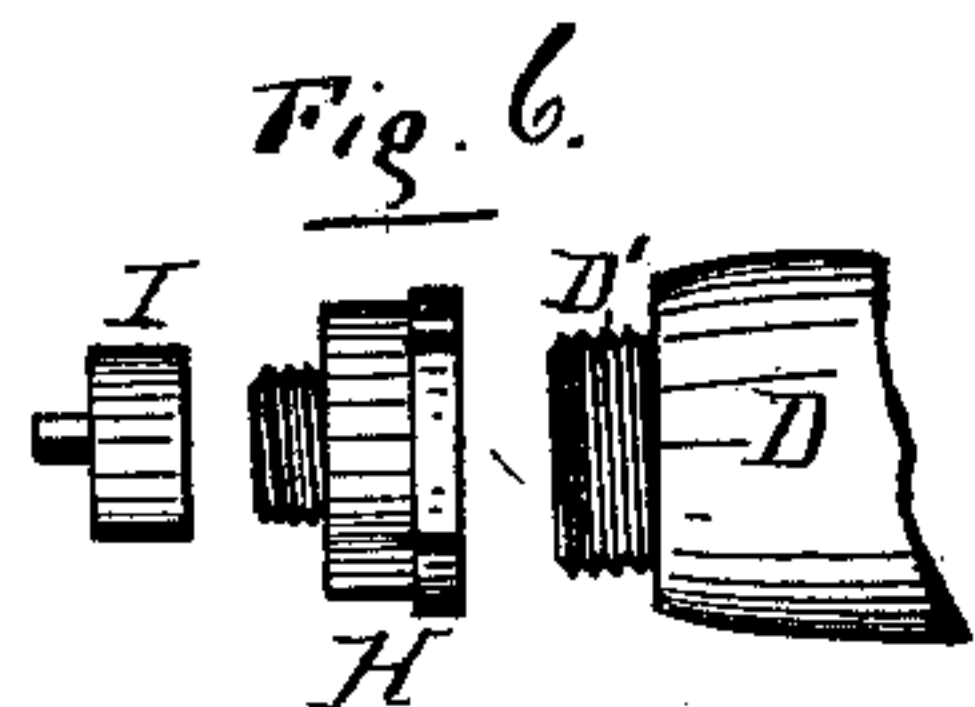


Fig. 6.

Witnesses:
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UNITED STATES PATENT OFFICE

SAMUEL RAINEY, OF SAN FRANCISCO, CALIFORNIA.

IMPROVEMENT IN FIRE-HYDRANTS.

Specification forming part of Letters Patent No. **206,611**, dated July 30, 1878; application filed March 20, 1878.

To all whom it may concern:

Be it known that I, SAMUEL RAINEY, of the city and county of San Francisco, in the State of California, have invented certain new and useful Improvements in Fire-Hydrants, which invention is fully set forth in the following specification and accompanying drawings, to which reference is made.

In the drawings herein referred to, Figure 1 is a perspective view of my improved fire-hydrant. Fig. 2 is a top view, one-half being in horizontal section. Fig. 3 is a vertical section at or near the line *xy*, Fig. 4. Fig. 4 is a back view of the upper part of the hydrant. Fig. 5 is a detail view of one of the valves and its spindle and box, and Fig. 6 is a detail view of the two-sized screw-coupling to receive a large or a small hose.

My invention relates to that class of fire plugs or hydrants supplying water from two or more connections or openings. It has for its object to provide a means for allowing the connections to operate independently of each other, whereby one engine can connect or disconnect without having the water shut off from the hydrant, and so interfering with the other engine taking water. It also has for its object to regulate the size of the streams of water supplied by it, whereby a larger or smaller hose or pipe can be connected at pleasure.

To this end it consists in providing each opening or outlet with a separate valve-seat and valve, and in making the coupling or connection in two parts, with screw-couplings of different sizes, as will be more fully described hereinafter.

In hydrants of the class supplying two or more streams of water, and to which my invention more particularly appertains, the connections communicate directly with the chamber of the hydrant, and when one stream is being used by an engine the other coupling cannot be brought into service and a second engine attached to take water without first shutting off the water from the hydrant, and thus stopping the working of the first engine. In this manner more or less valuable time is lost in cutting off the water to make the second connection.

In my invention this defect is overcome by

having each outlet controlled by a valve operated from the outside of the hydrant, so that the caps can be removed and connection made before the water is turned on, and at the same time the hydrant may be filled with water.

The hydrant shell or body is shown at A in the drawing, having the joint B secured to its lower end, which is placed and fixed within the socket of the street-main below the sidewalk. C is the main valve, and D D are the two connections and outlets. Each one of these outlets springs from a chamber, A' A', which are formed by enlarging the hydrant-body at these points to give increased water-space where the valves and stuffing-boxes are inserted, and the ends of these outlets are made diverging, to give greater space and facilities for connecting and disconnecting between them.

Within each chamber A' is a valve, E, operated from the outside of the hydrant by a spindle, F, and made to fit closely against a valve-seat, *a*, formed at the inner end of the connection D. The spindles F work through stuffing-boxes *b b* and screw-sleeves *c c*, which are held in place by the screws *d d*, and the valves and boxes are together removed from or inserted into the chambers A' A'. By this construction the valves, and parts connected with them can be readily taken out for cleaning or repairs, as will be understood by reference to Figs. 2, 4, and 5, of the drawings.

The outer end of each chamber D is screw threaded to form a coupling, D', and this part is made of such size and diameter of opening as to receive and supply water to a large-size hose, or to the suction-pipe of an engine; but it is also provided with a removable screw-sleeve or coupling, H, that fits upon the coupling D', and has a screw-threaded end of smaller diameter than the main coupling, to allow a smaller hose to be attached. Upon this end is placed the cap I to protect the coupling. By this arrangement of two different-sized couplings on the same outlet the quantity of water supplied by the hydrant is easily regulated, and a larger or smaller stream can be used as required.

This construction is of value in locations where the pressure of water varies, and where

an engine cannot obtain a proper supply from the ordinary-sized opening.

The valves E are free to turn upon their spindles, so that the surfaces of the valves and valve-seats will be caused to wear evenly and smoothly as they are operated by their spindles.

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

In a fire-plug, the combination, with the vertical body A, having central valved water-passage, of the two obliquely-diverging out-

lets D D near the top of the said body, closed by two independent valves, E, and the couplings D', provided with removable couplings H and caps I, constructed and arranged substantially as described and shown.

In testimony that I claim the foregoing I have hereunto set my hand and seal this 11th day of February, 1878.

SAML. RAINEY. [L. S.]

Witnesses:

C. W. M. SMITH,
E. V. SUTTER.