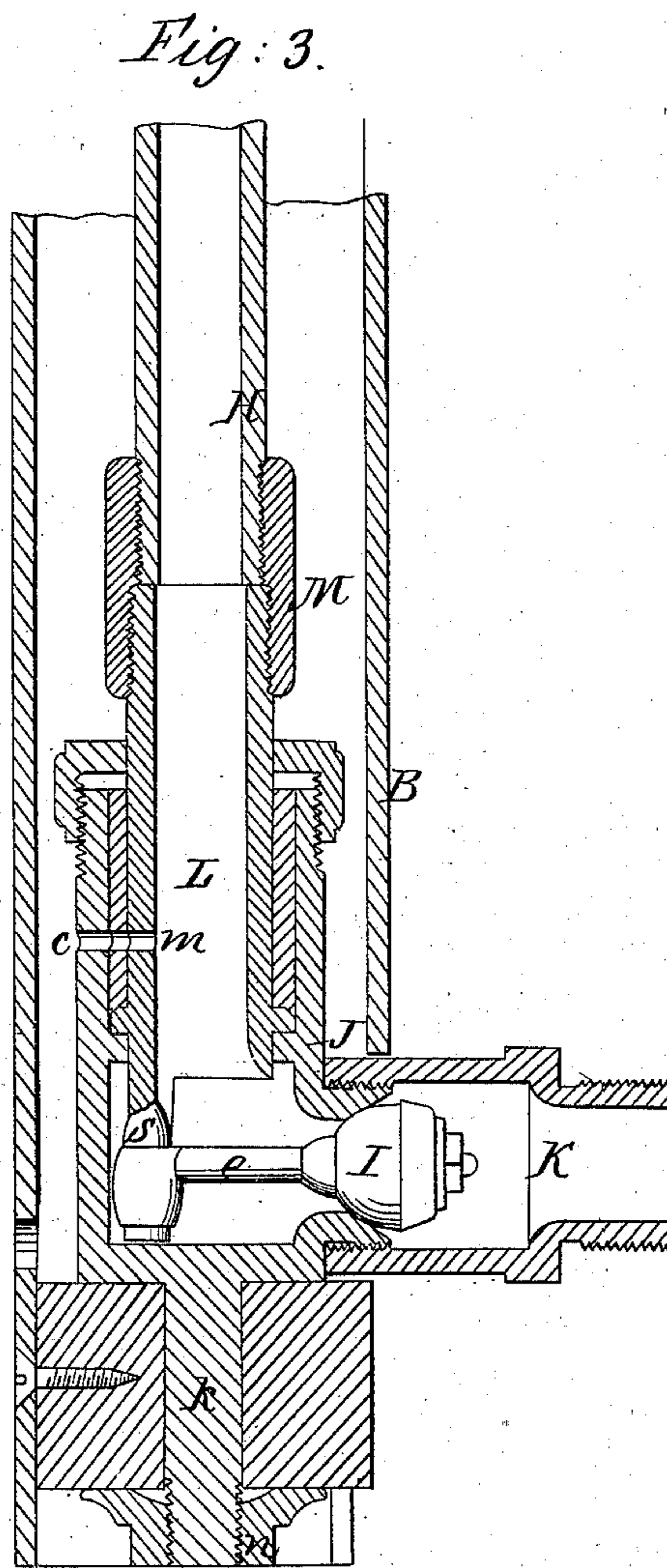
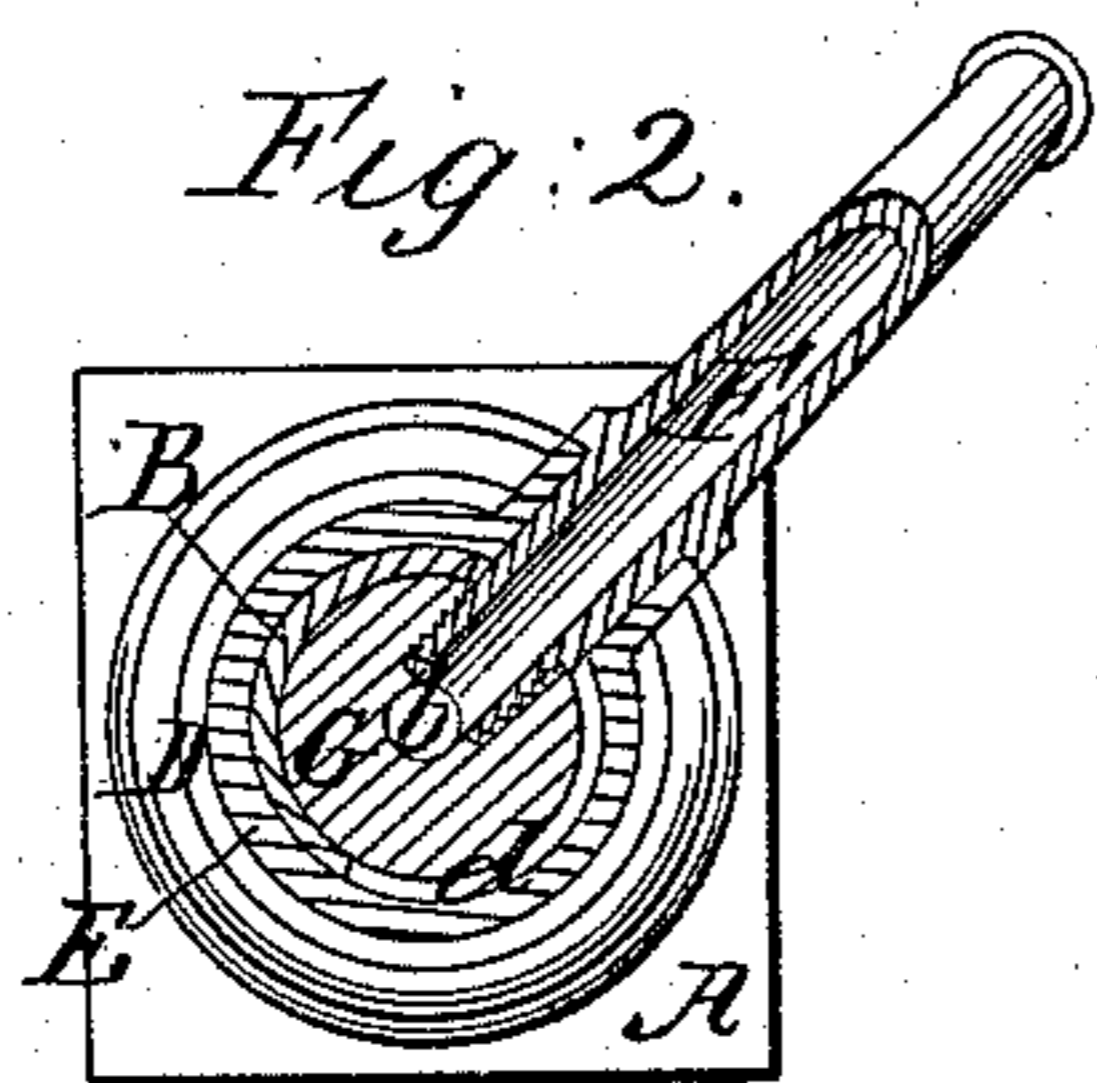
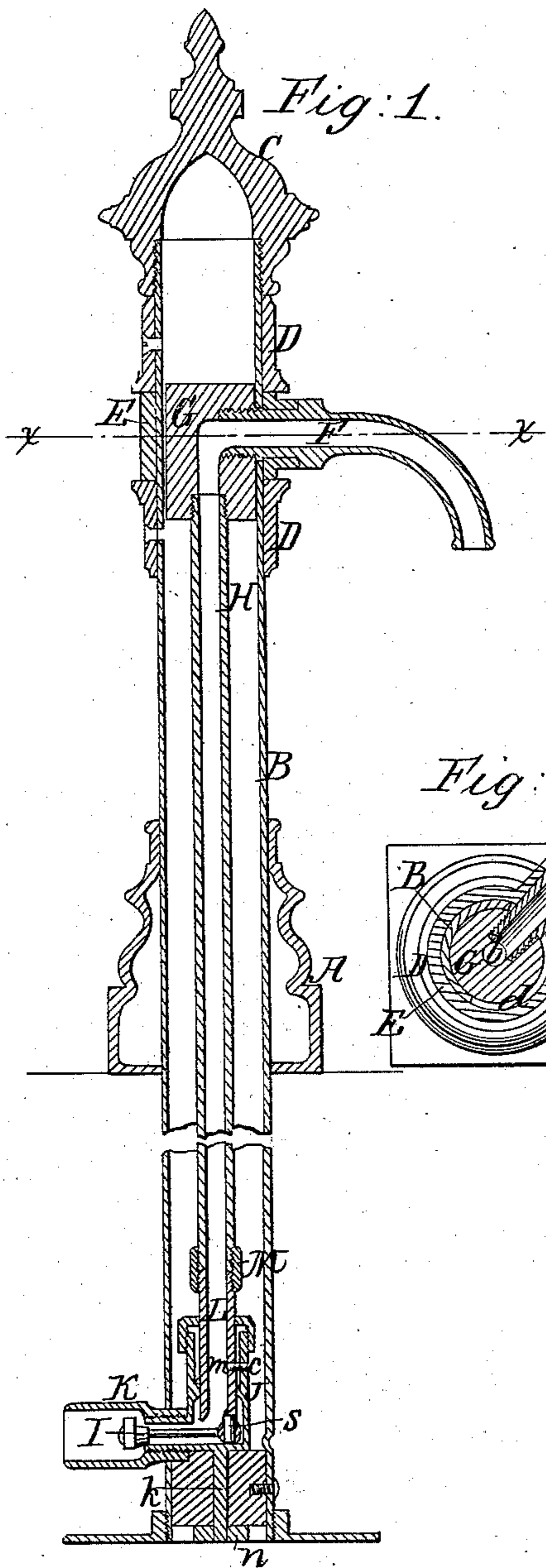


*A. Fuller,*  
*Hydrant Valve,*  
*N<sup>o</sup> 66,580.*      *Patented July 9, 1867.*



*Witnesses;*  
*M. Coombs*  
*G. W. Reed.*

*Inventor,*  
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# United States Patent Office.

ALBERT FULLER, OF BROOKLYN, NEW YORK.

Letters Patent No. 66,580, dated July 9, 1867.

## IMPROVEMENT IN HYDRANT-VALVES.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, ALBERT FULLER, of Brooklyn, in the county of Kings, and State of New York, have invented a certain new and useful Improvement on Hydrants, applicable in part also to stop-cocks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a vertical sectional elevation of a hydrant embracing my improvement.

Figure 2, a horizontal section through the line *xx* in fig. 1; and

Figure 3, a similar view to fig. 1 of the valvular, or what, where applied to a hydrant, constitutes the underground portion of my improvement on an enlarged scale.

Like letters indicate like parts throughout the several figures.

My invention has reference to a peculiar construction of the valvular portion of hydrants or stop-cocks and their discharge or outflow and waste-water passages, as or in connection with devices for operating the valve; and the nature of my invention consists, in combination with the valve, of a discharge pipe or tube made capable of turning, and, by an eccentric connection of it with the valve, to open and close the latter, also to open and close a waste-water passage separate and distinct from the valve. As this is substantially the same whether used for hydrants or stop-cocks, only such alteration or shape of details being necessary as will readily suggest itself to the manufacturer of these articles, the description hereinafter given will be restricted to hydrants.

Referring to the accompanying drawing, A represents the surface base of the hydrant, which may be formed of cast iron, while the main portion B of the body, that extends above and down into the ground, may be made of wrought-iron pipe, and on to the upper portion of said body a cast-iron cap, C, and rings D, be slipped, in similar manner to the fitting and attachment of the base A. These rings D are arranged a sufficient distance from each other to receive in between them a loose collar, E, forming one portion of the case or exterior of the hydrant, and into or through which the nozzle F of the hydrant is fitted, said nozzle entering a block, G, having a water-passage, *b*, through it, and made free to turn in the portion B of the body; also which has connected with it a vertical descending pipe, H, of, say, galvanized iron, that communicates with the passage *b* in the block G and nozzle F, and that serves, as the nozzle F is turned horizontally to the right or left, to open or close a valve, I, below, or waste-water passage *c*, said pipe H forming the water-discharge to and through the nozzle. A slot, *d*, is made in the tube B, the extremities of which act as limits or stops to the horizontal swing of the nozzle to determine its opening and closing, after the manner of a handle, of the admission I or waste-water passage *c* below. This attachment of or connection with the discharge pipe H is altogether irrespective of the particular form of valve employed or immediate mode of operating it by turning said pipe, but the following construction in these respects is preferred: J is the valve-box proper, having a branch, K, connecting it with the main, and in which is located the admission or outflow-valve I, that is preferably of a soft or flexible character, and of a conical form, opened and closed in a positive manner, by its gear with an eccentric motion or action, as previously secured to me by Letters Patent; but my invention, in this connection, essentially differs from previous constructions adapted in carrying out such principle of action, by giving a hollow character to the eccentric or attachment that operates it, and making such attachment a discharge pipe or tube, L, for the water, upwards through the hydrant, and capable of being turned in the valve-box, which may be connected, through a coupling-nut, M, with the pipe H, for the purpose of opening and closing the valve, by means of an eccentric pin, S, attached to the tube L and connecting-rod or arm *e* on swinging the nozzle F. The tube L, which passes through an upper extension of the valve-box J, that may contain any suitable composition or filling, is provided with a lateral waste-water aperture, *m*, altogether distinct from the valve I, and so arranged in relation to it, and through a corresponding hole in the filling referred to, with the waste outlet *c* of the valve-box, as that when the valve I is closed, by the turning of the tube L, the waste-water passage formed by the apertures *m c* is open, and *vice versa*. Thus it will be seen that the tube L, with its eccentric attachment for operating the valve, performs a threefold function, namely, first, as a device for opening and closing the valve; secondly, as a hollow eccentric, as it were, to form a discharge pipe for the water; and thirdly, as a device for controlling a separate waste-water passage. The lower extremity of the

underground portion of the main body B may be fitted with a wooden or other plug to exclude dirt, and through which a stem, *k*, of the valve-box may be made to project and be secured by a nut, *n*. By making the collar E preferably of a close character, receiving the inner end of the nozzle through it for connection with the passage *b* to the pipe H, dust or dirt is excluded from the hydrant, said collar at the same time forming a portion of the exterior or case of the hydrant, which may thus be cheaply, ornamentally, and lightly yet strongly constructed, by the combined use, as specified, of a wrought-iron tube for the main body, with cast-iron mountings or rings slipped on, and forming a base, cap, and intermediate surroundings, as described.

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

The valve I, linked in an eccentric manner, by pin or stud S, or its equivalent, to the tube L, by the oscillation of which the valve I and waste aperture *m c* are controlled, substantially as set forth.

ALBERT FULLER.

Witnesses:

J. W. COOMBS,

G. W. REED.