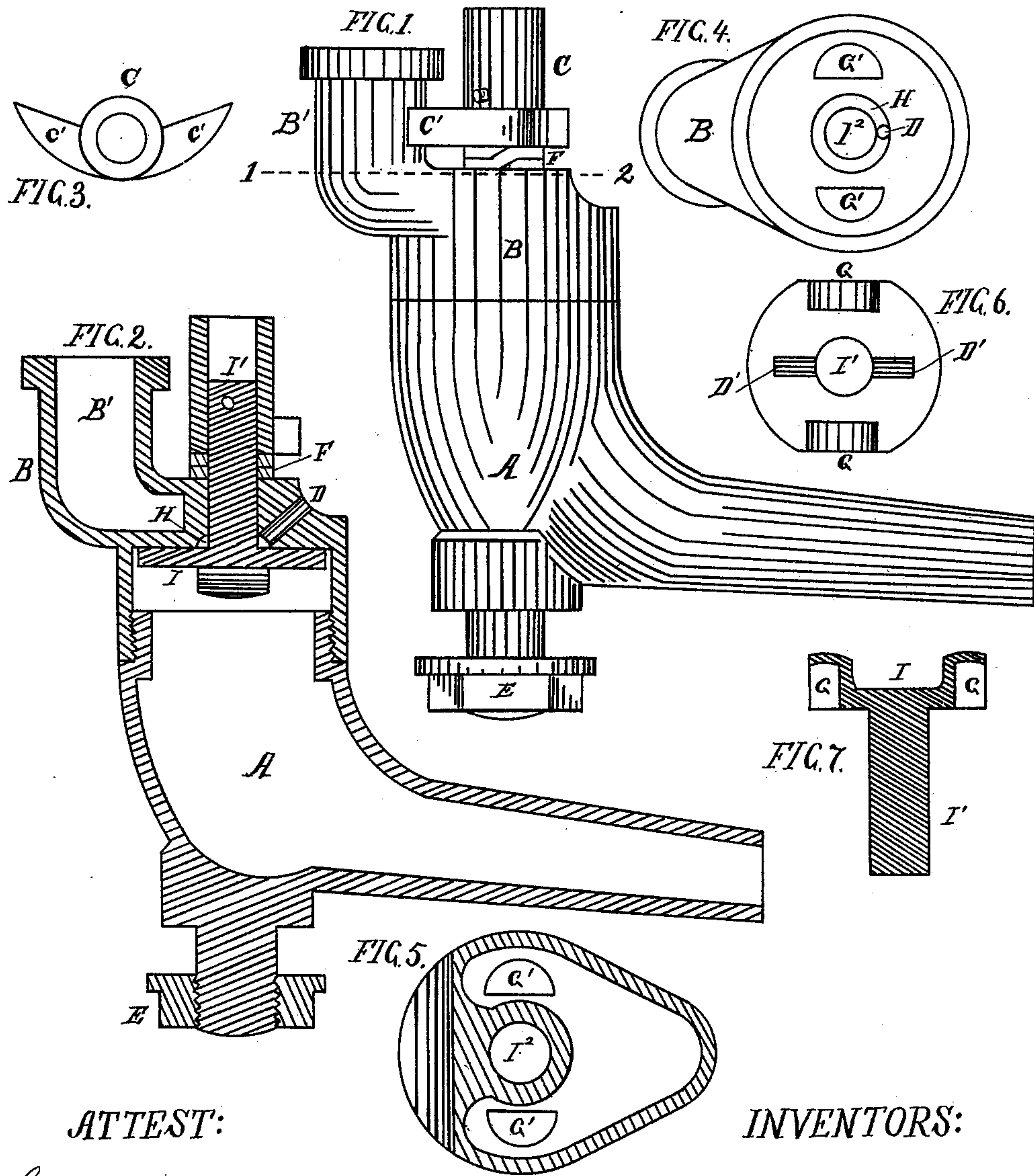


C. J. ELLIOTT & H. B. McCOOL.
Hydrant-Valve

No. 214,378.

Patented April 15, 1879.



ATTEST:

Geo. L. Bright
Jno. H. Brainerd

INVENTORS:

Charles J. Elliott
Hiram B. McCool

UNITED STATES PATENT OFFICE,

CHARLES J. ELLIOTT AND HORACE B. MCCOOL, OF POTTSVILLE, PA.

IMPROVEMENT IN HYDRANT-VALVES.

Specification forming part of Letters Patent No. **214,378**, dated April 15, 1879; application filed August 13, 1878.

To all whom it may concern:

Be it known that we, CHARLES J. ELLIOTT and HORACE B. MCCOOL, of Pottsville, county of Schuylkill, State of Pennsylvania, have invented a new and useful Improvement in Hydrant or Water Cocks, of which the following is a specification.

The invention relates to hydrant or water cocks having wastes to free the pipes above the cocks of water after the supply has been shut off.

Hydrant-cocks have heretofore been made with washers, screw-plugs, disks, or spring devices to operate the waste, and the closing device has been a washer, compression ring or disk, or plug-key ground into the cock.

The objections to ordinary hydrant-cocks are well known—liability to get out of order and leak, uneven wearing-surfaces, liability of clogging up with dirt, owing to the valves leaving their seats, and the imperfectness of the waste devices.

The object of our invention is to provide a hydrant-cock simple, durable, and efficient, and we accomplish this by the device hereinafter described.

The invention consists in arranging a metal valve, I, in a water-cock having a cored-out upper section, in which there are two water-passages, the valve having corresponding water-passages, covered and arranged as will be more fully described, also having the wasteways D' D' and H, the waste-outlet D, and the stop C, as shown in the accompanying drawings, and which are further described in this specification.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a side elevation of our hydrant-cock; Fig. 2, a sectional view of the same; Fig. 3, an end view of the valve-stop; Fig. 4, a view of the valve-seat in section B; Fig. 5, a sectional view through the line 1 2 in section B; Fig. 6, a top view of the valve, and Fig. 7 a sectional view of the valve.

In Fig. 1, A is the lower section of the cock-body, and B the upper section. E is a nut by which the cock can be secured to a casing. C is a stop, fastened to the stem of the valve by a pin, and having two projecting arms; C' C', which strike B' and prevent

the valve from being turned round too far. F is a spring, serving to keep the valve against its seat.

In Fig. 2 the waste-outlets H and D are shown, and in Fig. 6 the wasteways D' D' are shown.

In Fig. 4 we show the valve-seat in section B, G' G' being the water-passages, H and D' the wasteways, and I² the bore in which the valve-stem I¹ fits.

Fig. 5 shows the interior of section B above the valve-seat.

Figs. 6 and 7 show the valve I, having the stem I¹, the covered water-passages G' G', and the wasteways D' D'.

The operation of the device is as follows: The water passes up through the passages G' G', and then, if the valve is open, through the passages G' G', thence out through the outlet B'. When the valve-stem is turned back the water is shut off and the wasteways D' D' come directly under the passages G' G' in the valve-seat, and all water above the valve will at once run through the passages G' G', thence through the wasteways D' D', and, entering the way H, will pass out through the outlet D. The instant the valve opens the wasteways the water-passages through the valve are closed, and as soon as the water begins to pass through the passages in valve and seat the waste is closed. The waste and regular water-supply never run at the same time. One of the greatest defects in ordinary cocks is, that the waste runs part of, and in some of them the whole, time the water-supply is open. As this waste is self-acting and a part of the valve, it cannot get out of order or leak.

What we claim is—

A water-cock having the metal valve I, with two covered water-passages, G' G', and the wasteways D' D' and H, discharging into the waste-outlet D, said waste only operating when the water-passages G' G' are closed, and the stop C, arranged in connection with the cored-out section B, substantially as shown.

CHARLES J. ELLIOTT.
HORACE B. MCCOOL.

Witnesses:

GEORGE WHITNEY,
B. BRYSON MCCOOL.