

(No Model.)

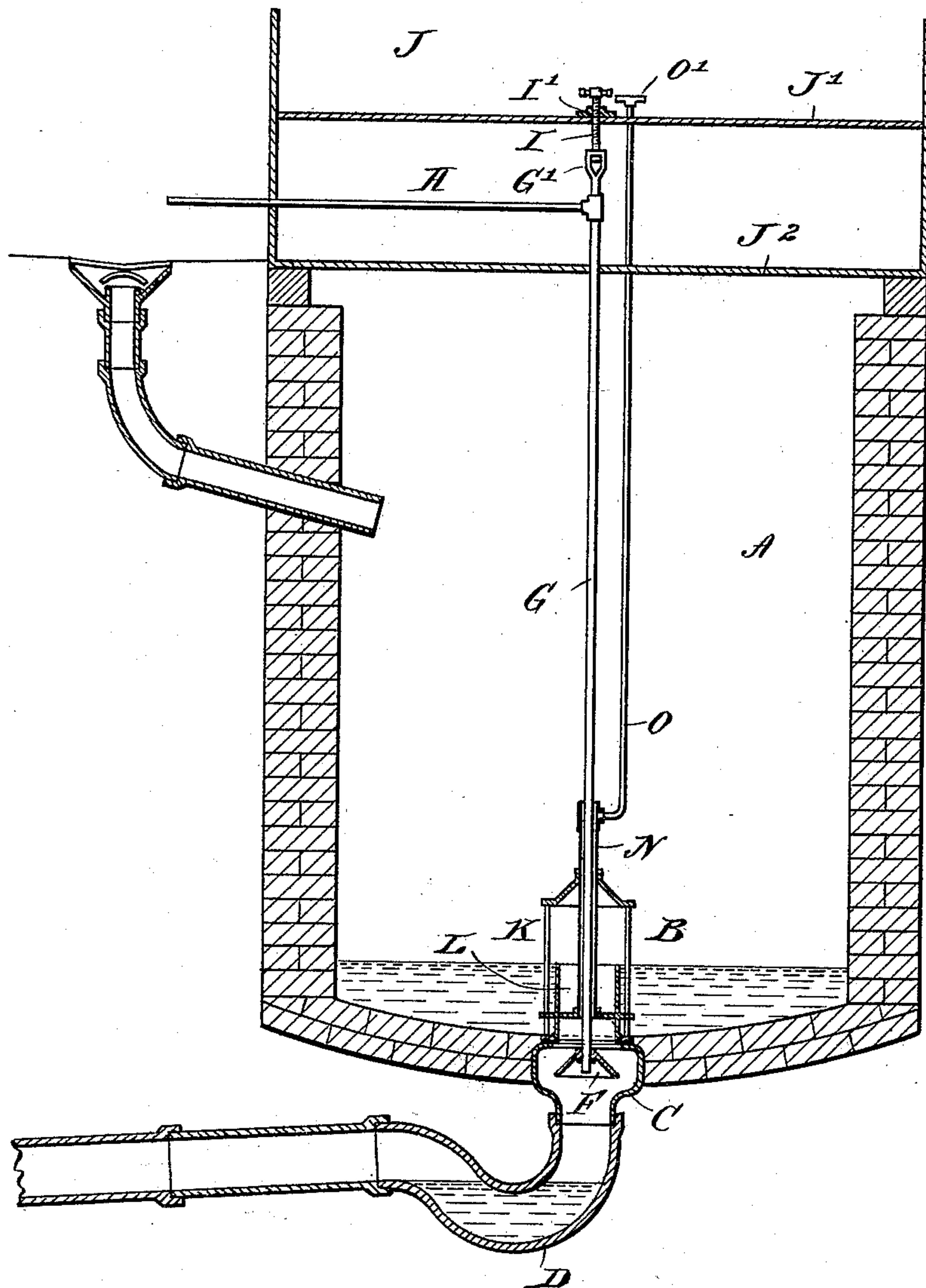
2 Sheets—Sheet 1.

J. H. DALY.
VALVE.

No. 417,003.

Patented Dec. 10, 1889.

Fig. 1.



WITNESSES:

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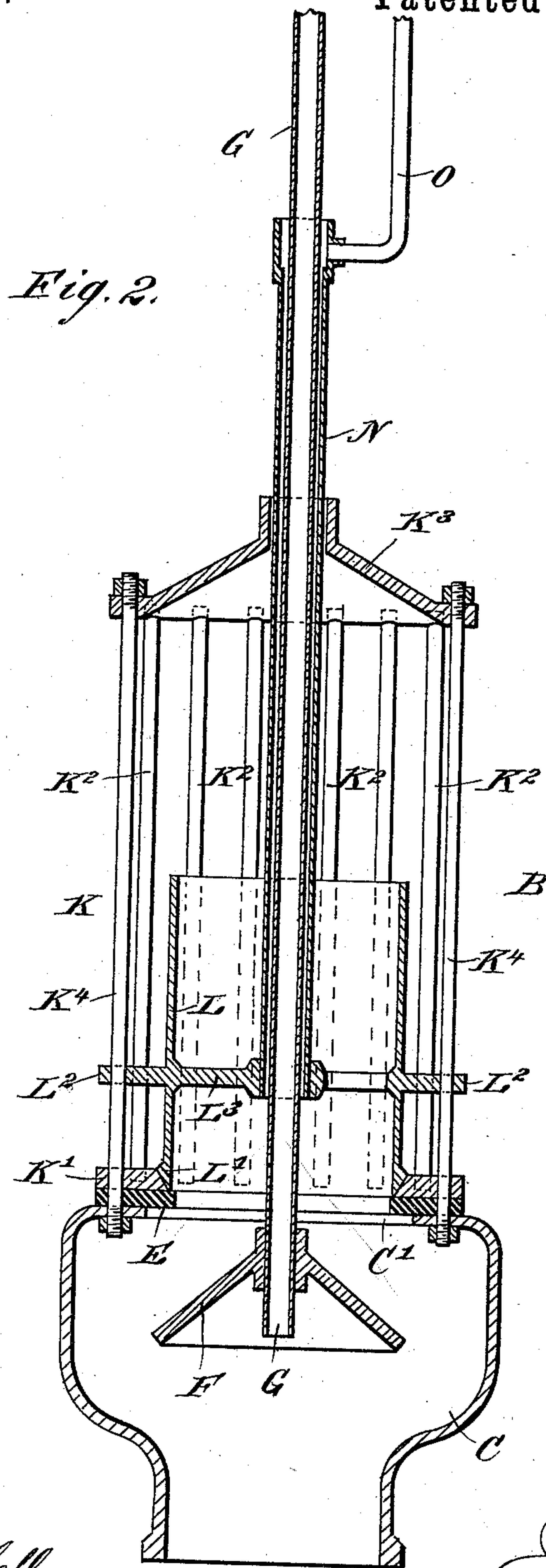
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2 Sheets—Sheet 2.

J. H. DALY.
VALVE.

No. 417,003.

Patented Dec. 10, 1889.



WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN H. DALY, OF PORTAGE, WISCONSIN.

VALVE.

SPECIFICATION forming part of Letters Patent No. 417,003, dated December 10, 1889.

Application filed June 21, 1889. Serial No. 315,036. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. DALY, of Portage, in the county of Columbia and State of Wisconsin, have invented a new and Improved Valve, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved valve specially adapted for catch-basins, which is very simple and durable in construction, permitting a ready emptying and cleaning of the basin whenever desired, and also permitting of cleaning the sewer-line in case the latter becomes choked with impurities, and resisting back-pressure in case of high water.

The invention consists of a valve adapted to be seated on the under side of a movable cylinder mounted independently.

The invention also consists of certain parts and details, and combinations of the same, as will be hereinafter fully described, and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a sectional side elevation of the improvement as applied, and Fig. 2 is an enlarged sectional elevation of the improvement.

The catch-basin A, of any approved construction, is provided in its bottom with the improved valve B, having the valve-body C connecting at its lower outer end with the trap D leading to the sewer-line. In the top of the valve-body C is formed an opening C', into which projects a rubber ring E, held on the top of the said valve-body C and forming a seat for the cone-shaped valve F, held in the valve-body C, and adapted to be seated on the rubber ring E from underneath, through the opening C' to the top of the valve-body.

The valve F is secured centrally on a pipe G, extending upward and connecting with a pipe H, connected with the water-main in any suitable manner. On the upper end of the pipe G is held a head G', loosely connected with the lower end of a screw-rod I, screwing in a nut I', secured to the seat J' of the closet J, which latter has its floor J² forming the top of the basin A. The pipe H ex-

tends between the floor J² and the seat J, as shown in Fig. 1.

On the top of the valve-body C is held a cage K, provided with a bottom ring K', resting on the rubber ring E and connected by rods K² with a cone-shaped cap K³. The cage K is secured in place on the top of the valve-body C by screw-rods K⁴, passing through the top of the valve-body C and through a flange on the cap K³. The outer edge of the ring K' of the cage K is beveled, so as to form a seat on which is adapted to be seated a correspondingly-beveled flange L', formed on the lower end of a cylinder L, having an inside diameter which is about the same as the inside diameter of the ring E. The cylinder L is provided on its outside with apertured lugs L², through which pass the screw-rods K⁴, which serve as guides for the cylinder L in its up and down motion.

In the cylinder L is formed a bridge L³, on which is secured a tube N, guided near its upper end in the cap K³ of the cage K. Through the tube N passes the pipe G previously mentioned, and on the upper end of the said tube is secured a rod O, extending upward through the floor J², and the seat J' of the closet J, carrying on its upper end a handle O', for conveniently raising the rod O and consequently the cylinder L.

The operation is as follows: The normal position of the valve is shown in Figs. 1 and 2—that is, the valve F is open while the cylinder L is seated on the ring K' of the cage K. The cylinder thus projects a suitable distance above the bottom of the basin A, so that the latter can be filled up to the top edge of the cylinder L with water, as is plainly shown in Fig. 1, in order to prevent solid matter from settling in the bottom of the basin A. At the same time the water forms a seal, and all impurities passing into the basin A flow over the edge of the cylinder L into the same, through the ring E, past the valve F into the trap D, and from the latter to the sewer-line. When the water in the bottom of the basin A becomes offensive, the operator pulls on the handle O', so as to unseat the cylinder L from the cage-ring K', thereby permitting the water to flow into the valve-body C, and from the latter through the trap D to the sewer-line.

In case the trap D or the sewer-line becomes choked by impurities, the operator closes the valve F by screwing the screw-rod I to raise the pipe G until the valve F is seated on the rubber ring E. The valve-body C now opens only into the trap D and into the pipe G. The latter, on account of being connected with the water-main, permits of forcing a stream of water through the pipes H and G by opening a suitable valve into the pipe H, so that the pressure of the water forced into the valve-body C cleans the trap D and also the main sewer-line in case the latter is choked. Thus it will be seen that by a very simple device I am enabled to clean the catch-basin at any time and to clean the trap D or the sewer-line in case they become choked.

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

1. In a valve for catch-basins, the combination of a movable cylinder open at both ends, and a valve adapted to close the lower end of the said cylinder, substantially as herein shown and described.

2. In a valve for catch-basins, the combination, with a valve-body held in the bottom of the catch-basin, of a cylinder held movably on the apertured top of the said valve-body, and a valve adapted to close the apertured top of the said valve-body, substantially as shown and described.

3. In a valve for catch-basins, the combination, with a valve-body held in the bottom of the catch-basin, of a cylinder held movably on the apertured top of the said valve-body, a valve adapted to close the apertured top of the said valve-body, and a cage secured to the top of the said valve-body and forming guideways for the said movable cylinder, substantially as shown and described.

4. In a valve for catch-basins, the combination, with a valve-body held in the bottom of the catch-basin and having an apertured top, of a valve for closing the said apertured top, and a pipe carrying the said valve and

opening at its lower end into the said valve-body, the upper end of the pipe being connected with source of water-supply, substantially as shown and described.

5. In a valve for catch-basins, the combination, with a valve-body held in the bottom of the catch-basin and having an apertured top, of a valve for closing the said apertured top, and a pipe carrying the said valve and opening at its lower end into the said valve-body, the upper end of the pipe being connected with source of water-supply, and means, substantially as described, for raising and lowering the said valve, as set forth.

6. In a valve for catch-basins, the combination, with a valve-body, of a valve for closing the opening in the top of the valve-body, and a pipe secured to and projecting through the valve, substantially as herein shown and described.

7. In a valve for catch-basins, the combination, with a valve-body held in the bottom of the catch-basin, of a cylinder held movable on the apertured top of the said valve-body, a cage secured on the top of the said valve-body and forming the seat and guideway for the said cylinder, and a valve held in the said valve-body and adapted to close the apertured top of the valve-body, substantially as shown and described.

8. In a valve for catch-basins, the combination, with a valve-body held in the bottom of the catch-basin, of a cylinder held movable on the apertured top of the said valve-body, a cage secured on the top of the said valve-body and forming the seat and guideway for the said cylinder, a valve held in the said valve-body and adapted to close the apertured top of the valve-body, and a rubber ring held on top of the said valve-body to form a seat for the said valve, substantially as shown and described.

JOHN H. DALY.

Witnesses:

C. C. BRITT,
JAMES B. TAYLOR.