

(No Model.)

2 Sheets—Sheet 1.

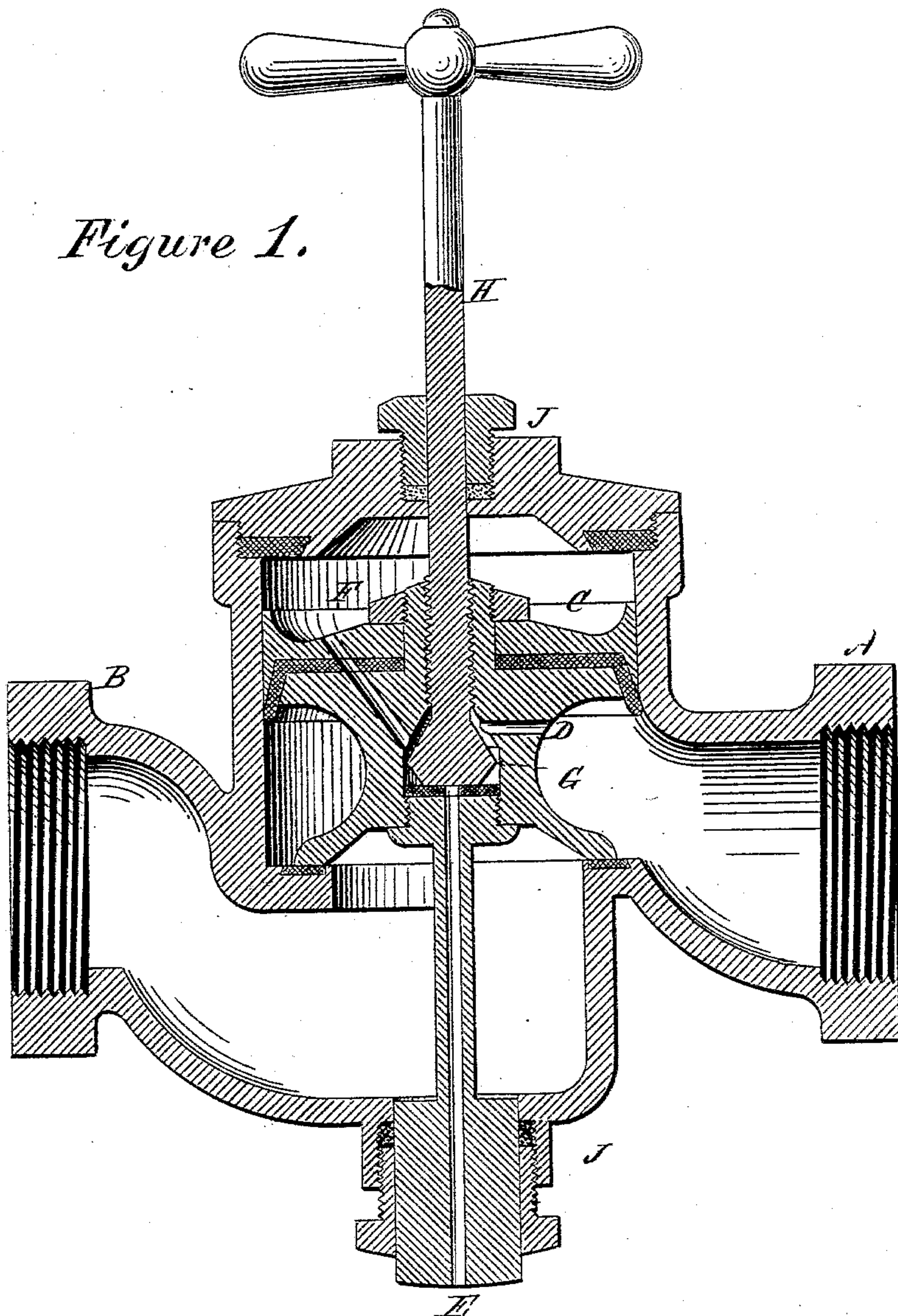
C. S. HASKELL & W. B. FLEMING.

VALVE.

No. 300,468.

Patented June 17, 1884.

Figure 1.



Witnesses:

A. E. Stanmann.

C. B. Humphrey.

Inventors:

Charles Haskell

William B. Fleming

By their attorneys

Foster & Freeman

(No Model.)

2 Sheets—Sheet 2.

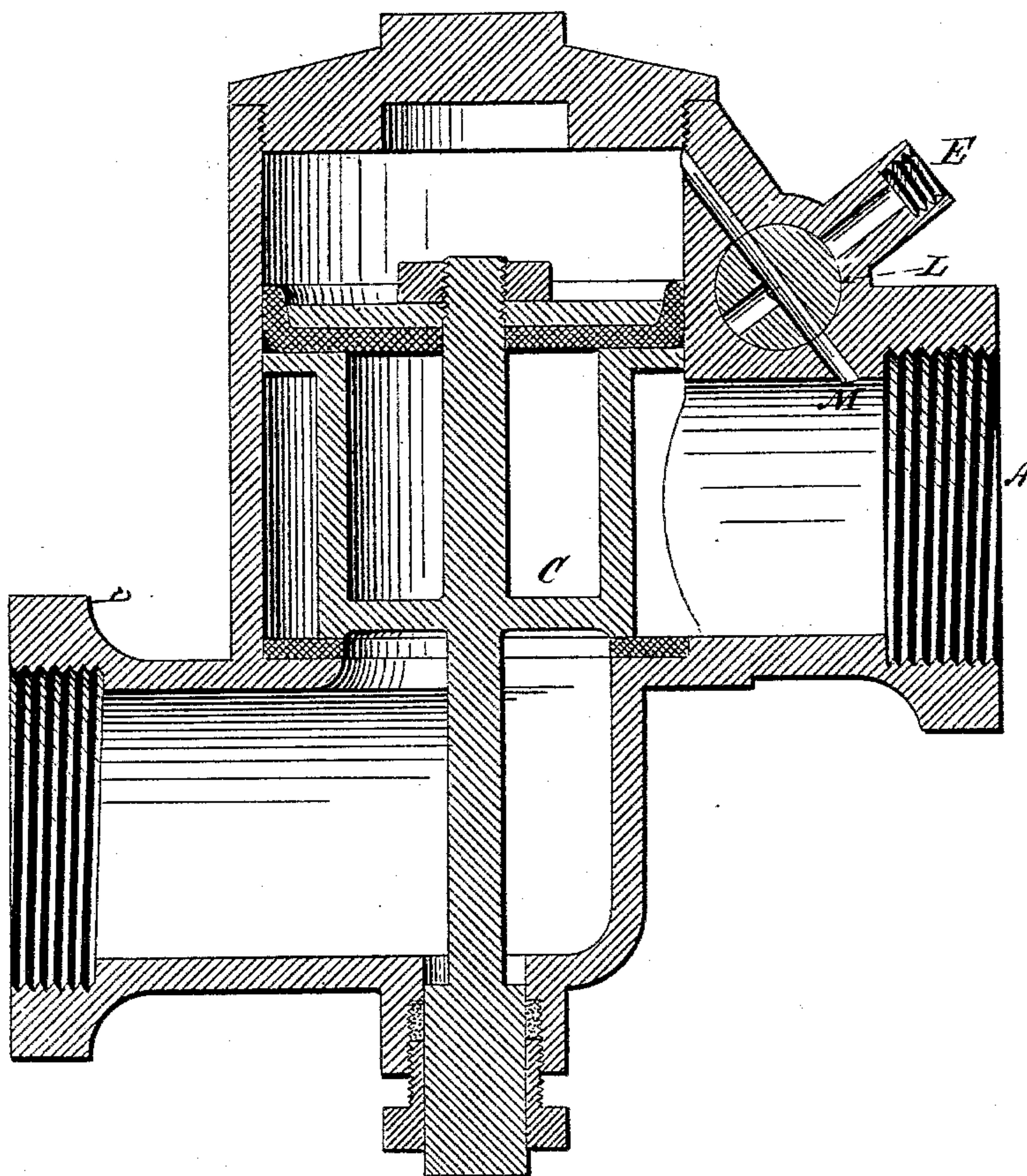
C. S. HASKELL & W. B. FLEMING.

VALVE.

No. 300,468.

Patented June 17, 1884.

Figure 2.



Witnesses:

H. E. Hansmann
C. B. Humphrey.

Inventor:

Charles S. Haskell
William B. Fleming,
By their Attorney,
Foster & Freeman

UNITED STATES PATENT OFFICE.

CHARLES S. HASKELL AND WILLIAM B. FLEMING, OF PHILADELPHIA, PA.

VALVE.

SPECIFICATION forming part of Letters Patent No. 300,468, dated June 17, 1884.

Application filed September 20, 1883. (No model.)

To all whom it may concern:

Be it known that we, CHARLES S. HASKELL and WILLIAM B. FLEMING, of the city of Philadelphia, State of Pennsylvania, have
5 invented a new and useful Improvement in Valves, of which the following is a full, true, and exact description, reference being had to the accompanying drawings.

Our invention relates to an application of
10 the auxiliary-valve principle to valves adapted to be opened and closed by hand or by mechanism; and it relates more particularly to machines in which a secondary valve is so combined with the main valve as that the op-
15 eration of said secondary valve will serve to close or to open or to open and close the main valve; and it consists in the specific constructions by which this is effected, and which will now be described.

20 Our invention will be readily understood from the accompanying drawings, in which Figure 1 represents a cross-section of our valve, showing all the parts; and Fig. 2 represents a sectional view of a modification of our
25 invention.

Similar letters refer to similar parts in all the drawings.

A represents the inlet-pipe, and B the outlet-pipe.

30 Our valve, as shown, is particularly applicable to a water-valve.

C represents the main valve.

We will describe first the valves shown in Fig.

1. The main valve is pierced with ports D
35 and F, of which D communicates with the water-pressure and F with the chamber above the main valve. Within the main valve is the auxiliary valve G, operated by the stem H. This auxiliary valve may be raised and
40 lowered by screwing the handle H. The lower part of the main valve has a pipe connecting with it and delivering through the outlet E to the atmosphere or waste. The main valve and its connections can move up
45 and down vertically.

The operation of this valve can now be readily understood: In the position shown the water-pressure entering by the pipe A passes through the passage D, past the auxil-
50 iary valve; thence through the passage F into the chamber above the main valve, thereby seating the main valve firmly and closing the same. If the handle H be raised by unscrew-

ing it, the opening D will be closed and the opening E will be opened. Therefore the
55 water above the main valve C will flow downward and escape through the opening E, and the pressure acting beneath the main valve and in the annular space around will raise the same into the chamber above it. It will be
60 observed that the upper part of the main valve is larger than the seating portion below. It is obvious that in this and the other figure the valve should be suitably packed and provided with suitable seats, as is clearly
65 shown in the drawings.

In Fig. 2 an auxiliary three-way cock is shown at L. As shown in the figure, the wa-
ter-pressure passes directly by the passage M
70 into the chamber above the main valve C, and thereby seats the same; but if the three-way cock is turned a quarter of a turn, the outlet-passage E will be put in communication with the chamber above the valve, and the water
75 therein will be permitted to escape, when the pressure beneath the valve will force it upward and open the same. Some features of this case are shown in our application filed
March 10, 1883, Serial No. 87,731; but we do
80 not herein claim anything claimed in said ap- plication.

What we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with an inlet-pipe, of a main valve arranged directly in the pipe
85 and an auxiliary valve in a valve-opening communicating with the inlet-pipe, the arrangement being such that the main valve is operated by the direct pressure of the water in the pipe, and is closed by the pressure of
90 the water controlled by the auxiliary valve, as set forth.

2. The combination, with an inlet-pipe, of a main valve arranged directly in the pipe,
95 and an auxiliary valve consisting of a three-way cock in a channel communicating with the inlet-pipe, the arrangement being such that the direct pressure of the water operates to open the main valve, and the pressure controlled by the three-way cock operates to close
100 the same, as set forth.

CHARLES S. HASKELL.
W. B. FLEMING.

Witnesses:

C. W. CROASDILL,
WM. C. HOCTOR.