

(No Model.)

F. A. BISHOP.

FAUCET FOR REGULATING THE OVERFLOW FROM BASINS.

No. 255,918.

Patented Apr. 4, 1882.

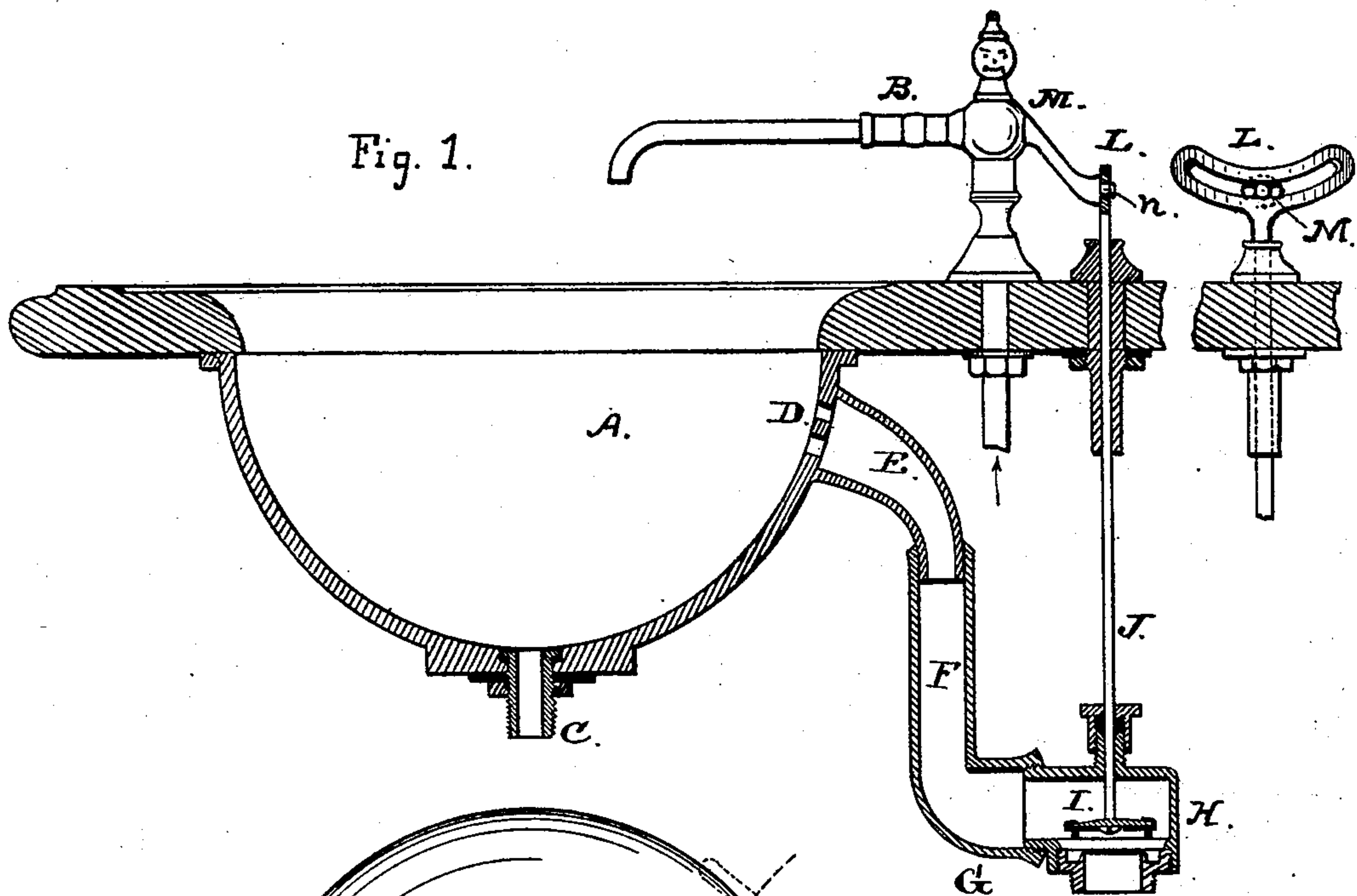


Fig. 2.

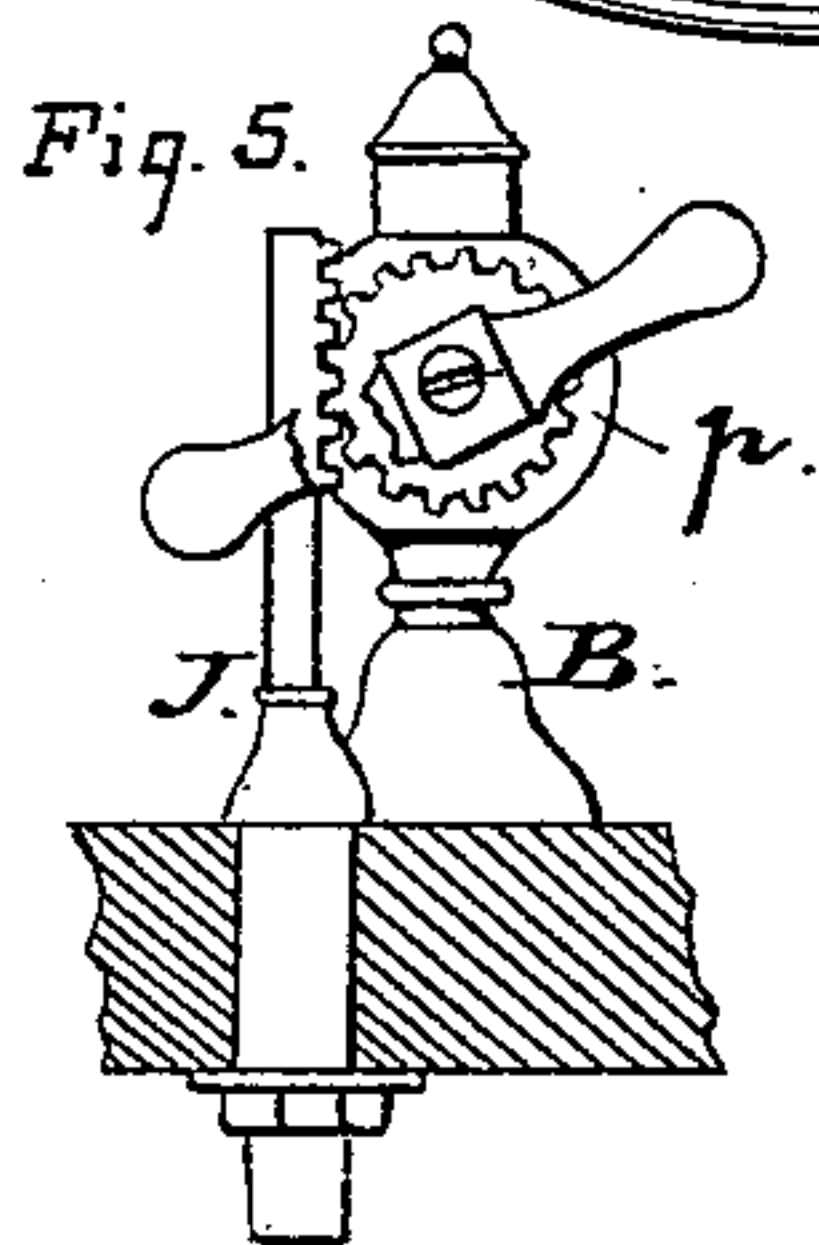
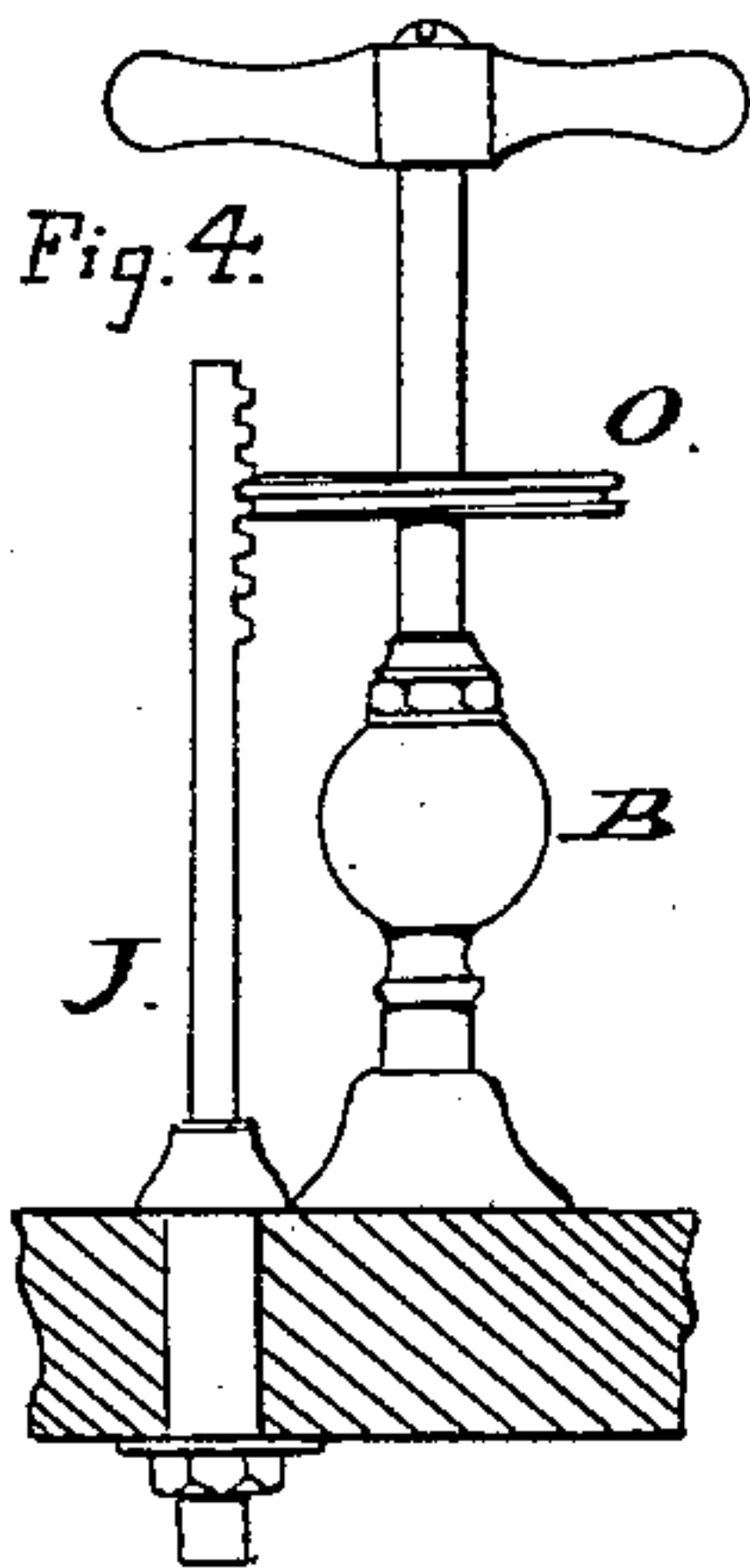
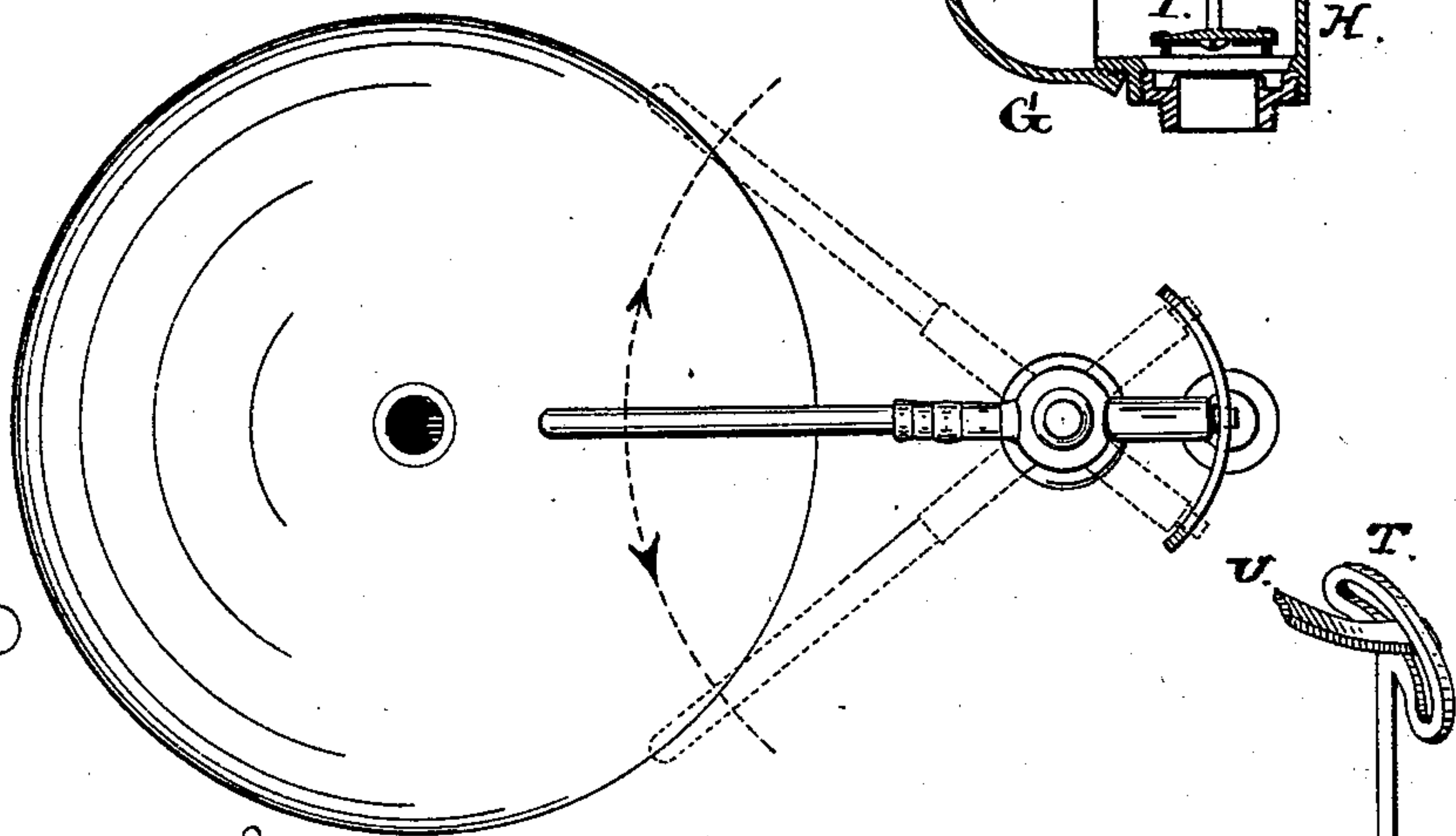
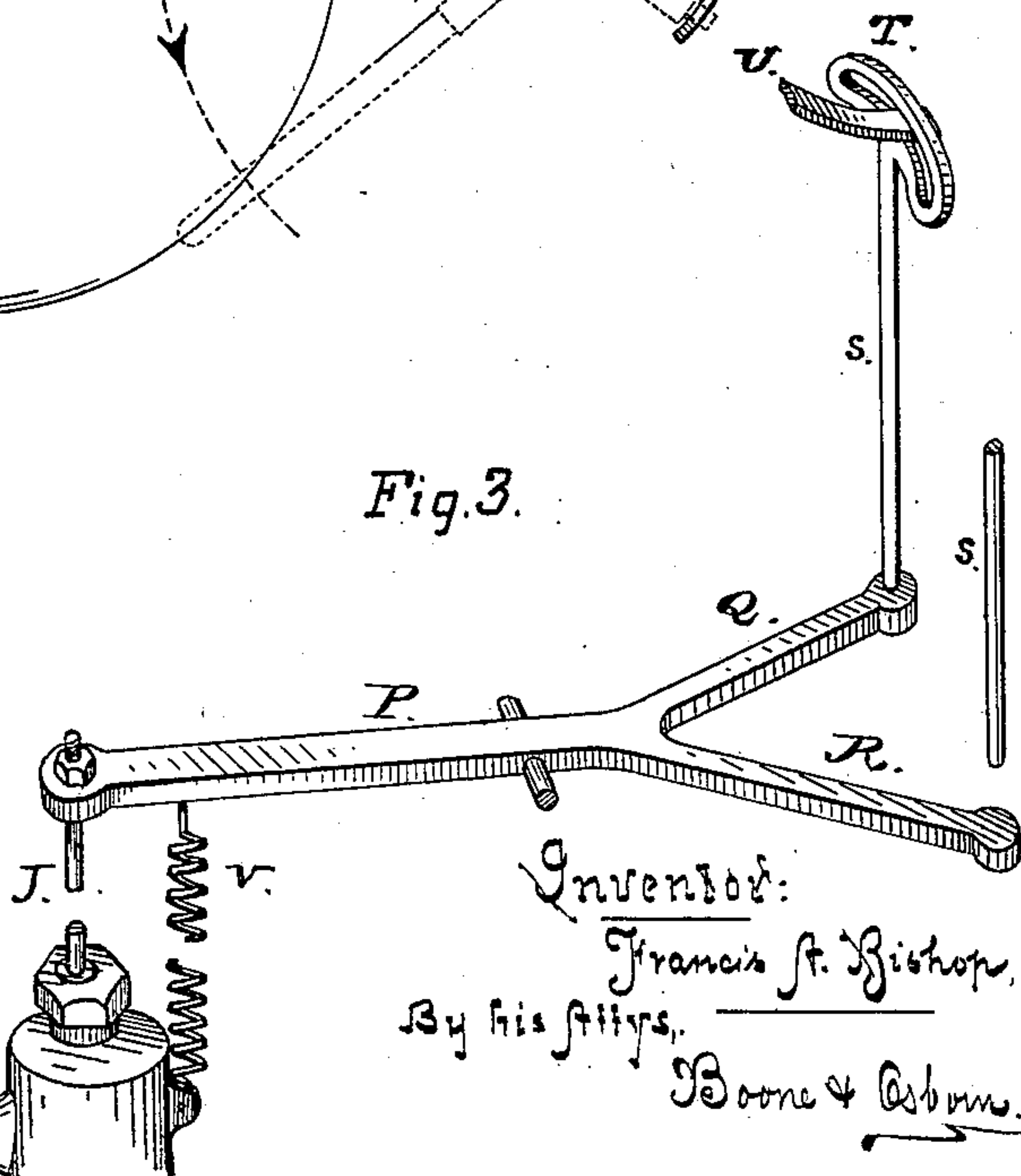


Fig. 3.



Witnesses:

Wm. H. Lott
Edw. H. Lott

From Basin Overflow

Inventor:

Francis A. Bishop
By his Attys.
Boone & Osborn

UNITED STATES PATENT OFFICE.

FRANCIS A. BISHOP, OF SAN FRANCISCO, CALIFORNIA.

FAUCET FOR REGULATING THE OVERFLOW FROM BASINS.

SPECIFICATION forming part of Letters Patent No. 255,918, dated April 4, 1882.

Application filed May 4, 1881. (No model.)

To all whom it may concern:

Be it known that I, FRANCIS A. BISHOP, of the city and county of San Francisco, in the State of California, have invented a Faucet Attachment for Opening and Closing the Overflow-Passages from Basins and Bowls; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings.

The object of my invention is to prevent sewer-gases from entering the rooms of a house through the overflow-passages of stationary wash-bowls and closets; and it consists in a vertically-movable valve, combined in a novel manner with the supply cock or faucet, and a valve-chest which is applied in an overflow-pipe leading from the basin or bowl, whereby the said valve is closed when the supply-cock is closed and opened when this cock is opened, as will be hereinafter explained.

Referring to the accompanying drawings, Figure 1 is a longitudinal section through a bowl and overflow-pipe. Fig. 2 is a plan view, showing the position of the faucet and its relations with the yoke of the sliding valve-rod when open and closed. Fig. 3 is a detail view, showing the forked lever used for operating the valve when two cocks are used. Figs. 4 and 5 show the means for operating the valve-rod from basin-cocks having a rotary spindle.

Let A represent a stationary wash bowl or basin, and B the faucet through which the bowl or basin is supplied with water.

C is the ordinary waste-pipe, through which the basin is emptied.

The overflow-openings D are on one side, near the top of the bowl, and the usual method of connecting these openings with the waste-pipe is by means of a duct, tube, or passage leading to the waste-pipe along under and close to the bowl. More generally this duct, tube, or passage is formed on or attached to the bowl, so as to connect with the waste-passage just underneath the bowl.

In constructing the basin or bowl I form a short pipe or tube, E, leading from around these overflow-openings downward from the bowl, so that after the basin has been secured in position another short tube, F, can be connected with its lower end. The lower end of the tube F is bent at right angles, so as to

pass horizontally across the vertical line in which the faucet B stands, and an elbow, G, is secured in the end of the horizontally-bent portion. A curved pipe, H, then connects the lower part of the elbow with the waste-pipe C. On the upper end of the pipe H, inside the elbow, I form a valve-seat on which a valve or plug, I, fits. This valve is attached to the lower end of a rod, J, which passes through a stuffing-box in the top of the elbow-chamber and up through the table around the rim of the basin. The upper end of this rod I connect with the operating part of the faucet or cock B in such a manner that the operation of turning the water into the basin raises the valve or plug I and holds it open as long as the water runs, so that in case the water should rise in the bowl above the overflow-openings it will flow off through the pipes E F G H into the waste-pipe C. The operation of shutting off the water then closes the plug or valve I, as there is no further need of overflow-passage after the water is shut off.

Figs. 1 and 2 show a swing cock or faucet. When I use this style of faucet I form a bent loop, L, the ends of which curve upward on the upper end of the rod J, and extend an arm, M, from the rotating part of the faucet back to the loop. A journal, n, on the end of the arm passes through the slot in the loop, so that when the faucet-spout is swung around over the basin the pin moves toward the middle or lower part of the slot and raises the rod and valve; but when it is swung or turned back in either direction the pin moves to the end or highest part of the slot and forces the valve down on its seat.

Fig. 4 represents a faucet which is operated by a vertical screw-rod. In this case I secure a horizontal wheel, O, on the rod, the rim of which is formed with one or more spiral threads on it. On the upper end of the rod I form a number of cogs or teeth, as shown, with which the threads of the wheel O engage. This arrangement serves to raise and lower the valve in the same way as above described when the screw-rod is turned to let on or shut off the water.

Fig. 5 shows a faucet which is operated by turning a horizontal rod. In this case I secure a pinion, p, on the horizontal rod, which

engages with a rack, *g*, on the vertical rod, so that the same result is obtained when the water is let on and shut off.

Fig. 3 represents an arrangement to be used when two faucets—one for hot and the other for cold water—are employed. In this case the rod *J* extends only a short distance above the elbow or valve-chamber, and its upper end is attached to one end of a horizontal bar, *P*, which is supported on trunnions or journals at or near its middle. The opposite end of this bar has two branches, *Q R*, so that by pushing downward on the extremity of either branch the valve *I* is raised and the waste-passage opened. A spring, *V*, is arranged to draw the opposite end of the bar down and close the valve when the pressure is removed from the branches.

To produce the necessary downward pressure by the turning of either faucet, I pass a spindle, *S*, down through a hole in the table in the rear of each faucet, so that its lower end will press upon the extremity of one of the branches *Q R* when it is pressed down. The lower ends of the spindles or rods are not attached to the branches, but simply rest on them, so that pressure on either depresses both branches, leaving the other spindle or rod in its place.

Each spindle I provide with a curved loop, *T*, at its upper end, the ends of which curve downward, instead of upward, as in the single faucet before explained. An arm, *U*, projects from the rear of each faucet, and its end moves in the curved slot in the loop, so that when either faucet-tube is swung over the basin its arm *U* will be moved to the middle or highest

part of the slot, thus pressing the spindle downward so as to force the branch below it down and raise the valve. Both branches move together, so that the bar is operated by pressure on either one singly, or both branches can be pressed down at the same time, and the valve cannot close as long as either faucet is running water. This forked lever can be operated by either of the other devices above described.

I am aware that it is not new to combine a stop-cock or faucet with the overflow-pipe of a wash-bowl and with the supply cock or faucet in such manner that the said cocks are united to open and close together, and therefore I do not claim such arrangement as my invention when considered in the broadest terms.

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

1. The bifurcated lever *P*, combined with the supply cocks or faucets, and with a vertically-movable valve arranged in the overflow-pipe of the basin or bowl, substantially as described.

2. In combination with the horizontally-vibrating supply-cock and its rear extension, the loop, the valve-rod, the vertically-movable valve, valve-chest, and the overflow-pipe, substantially as described.

In witness whereof I have hereunto set my hand and seal.

FRANCIS A. BISHOP. [L S.]

Attest:

WM. F. CLARK,
EDWARD E. OSBORN.