

912,598.

Patented Feb. 16, 1909.

Fig. 3.

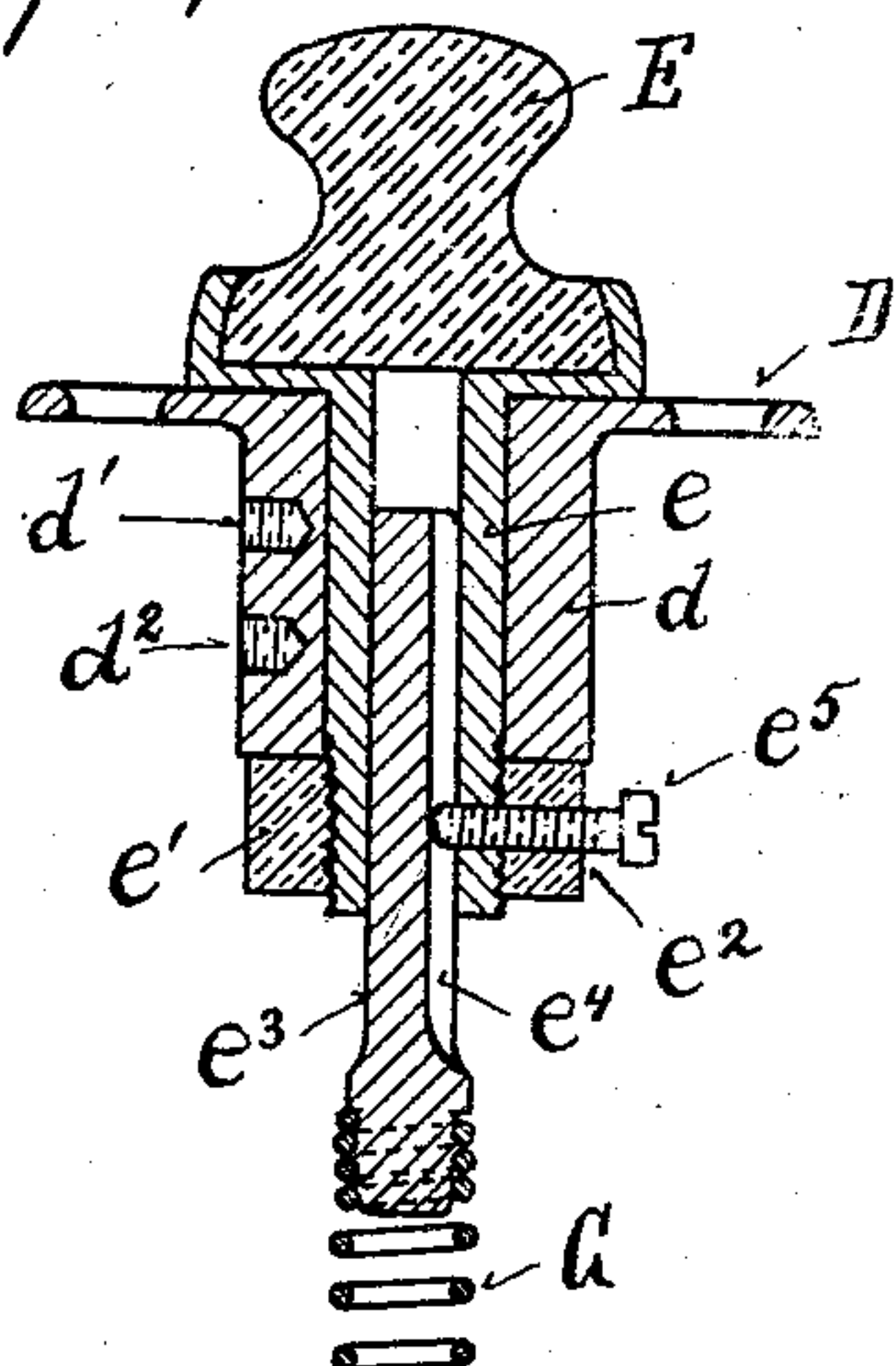


Fig. 1.

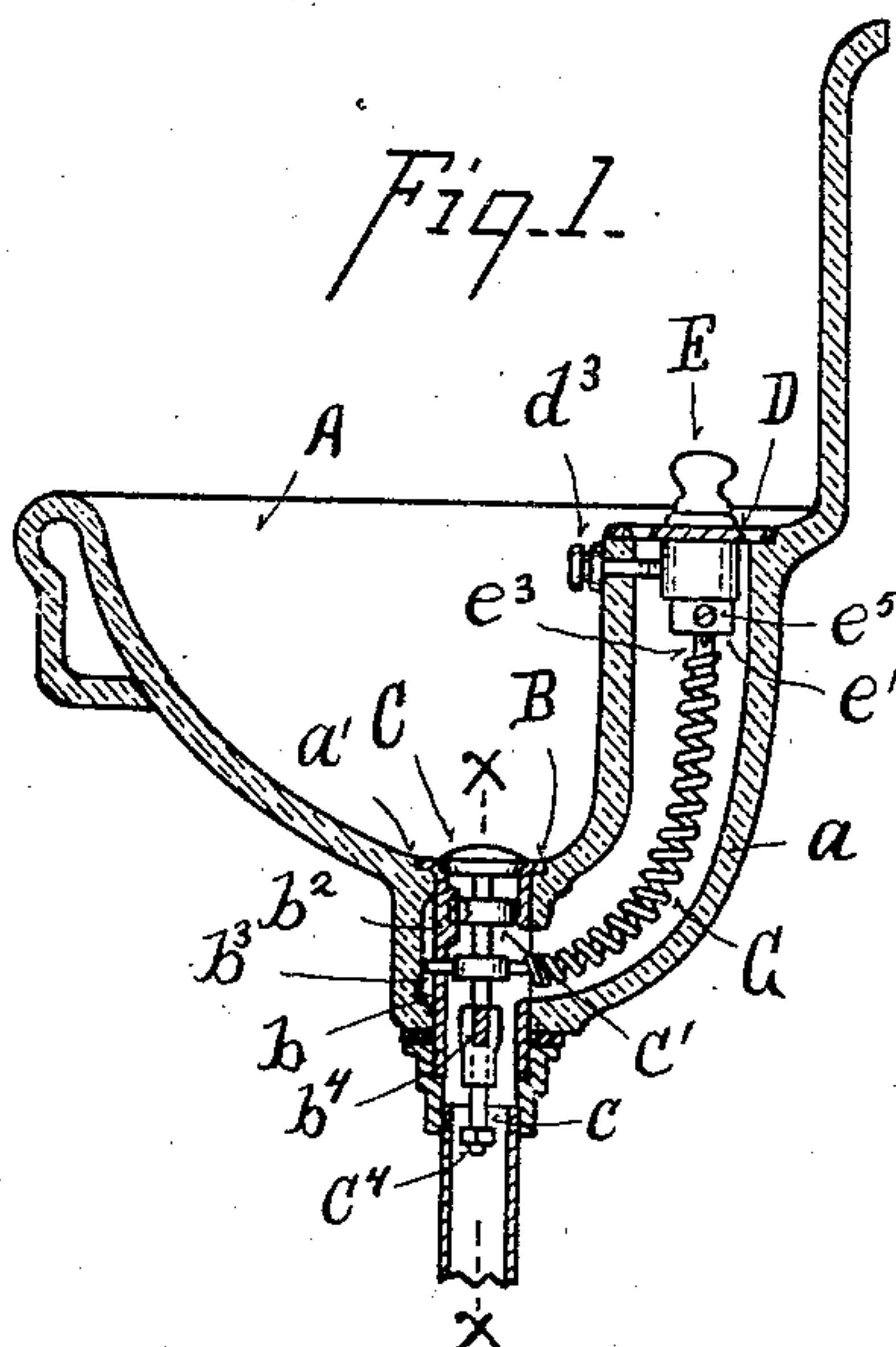


Fig. 4.

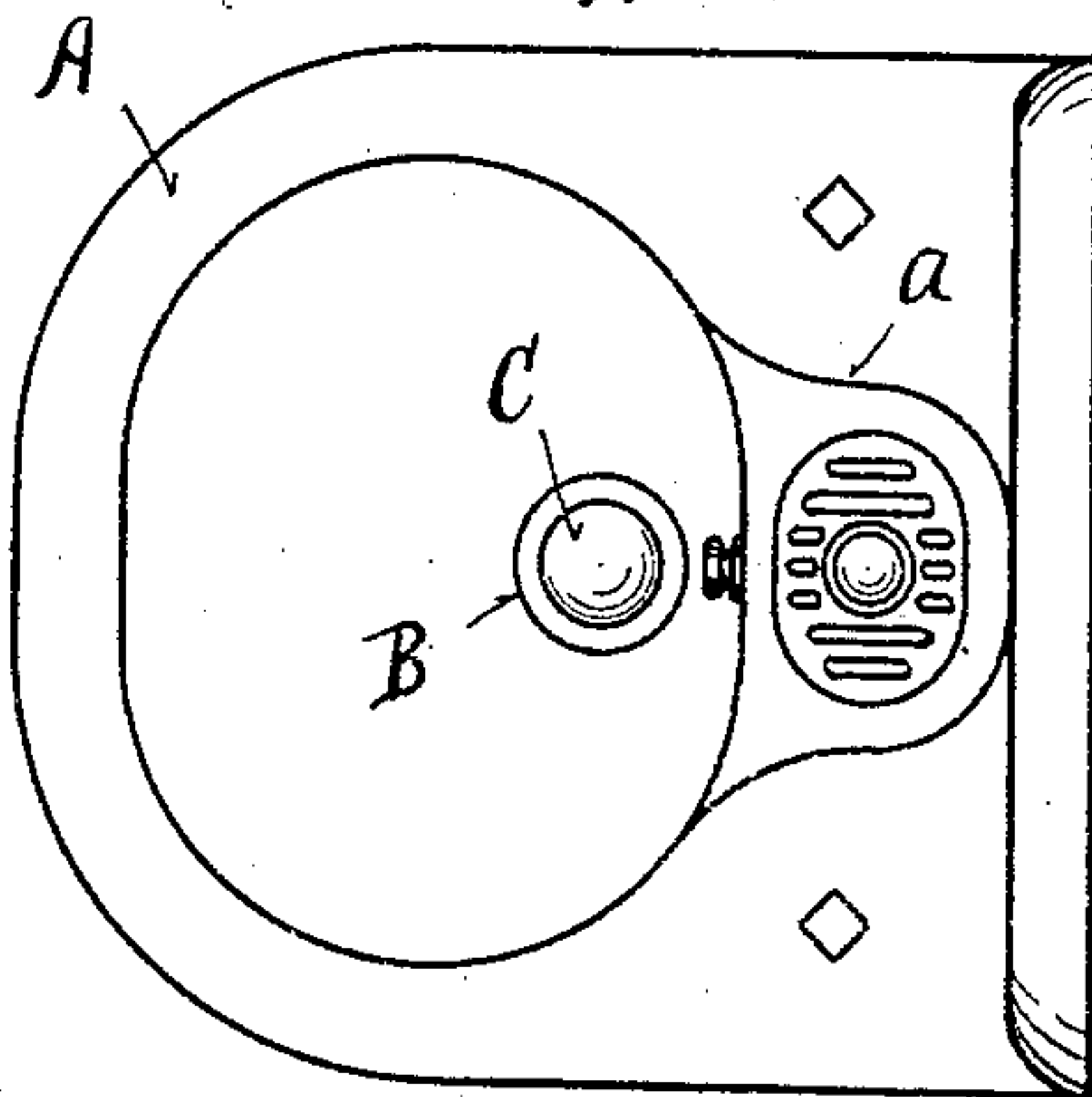
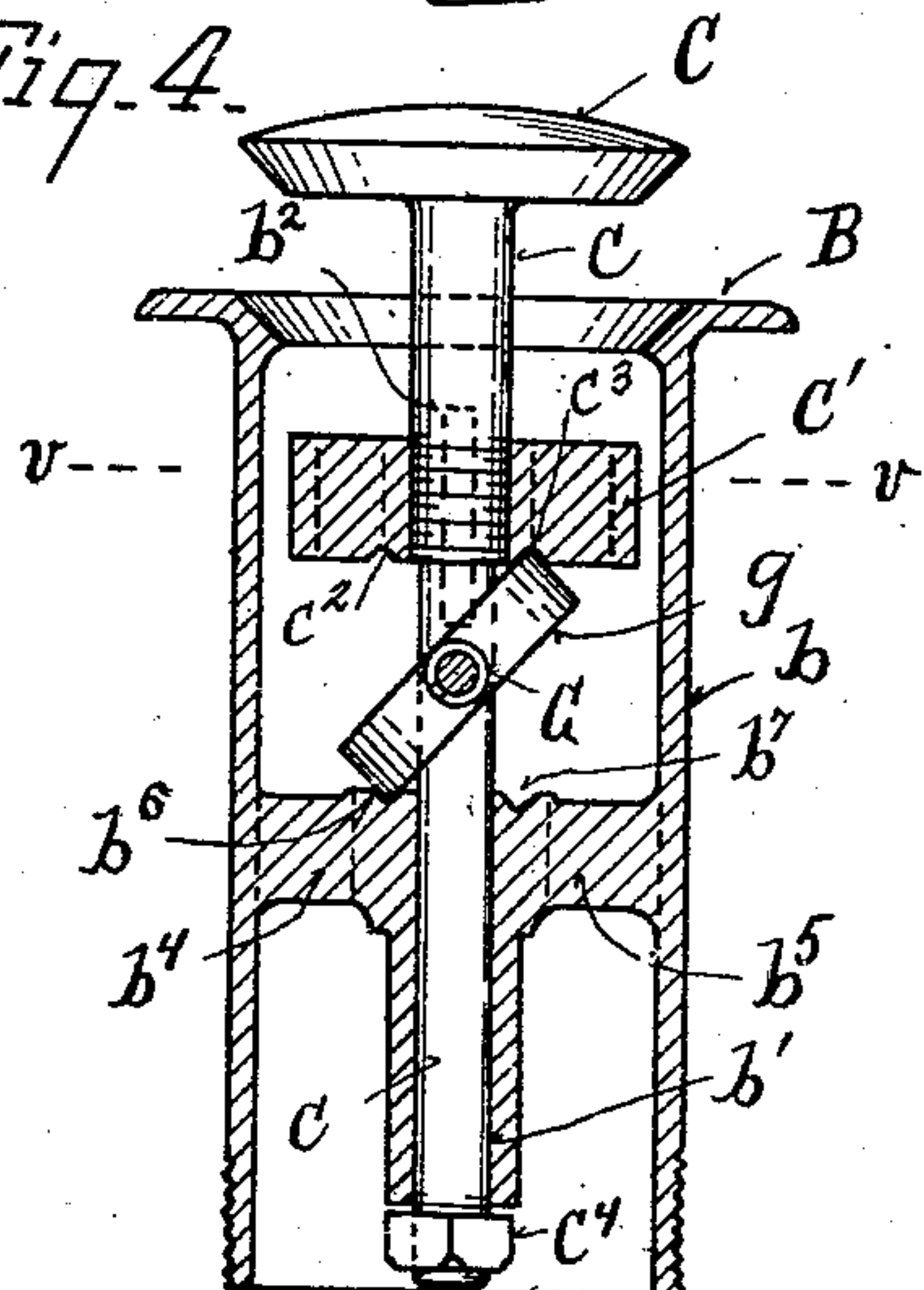


Fig. 2.

Fig. 5.

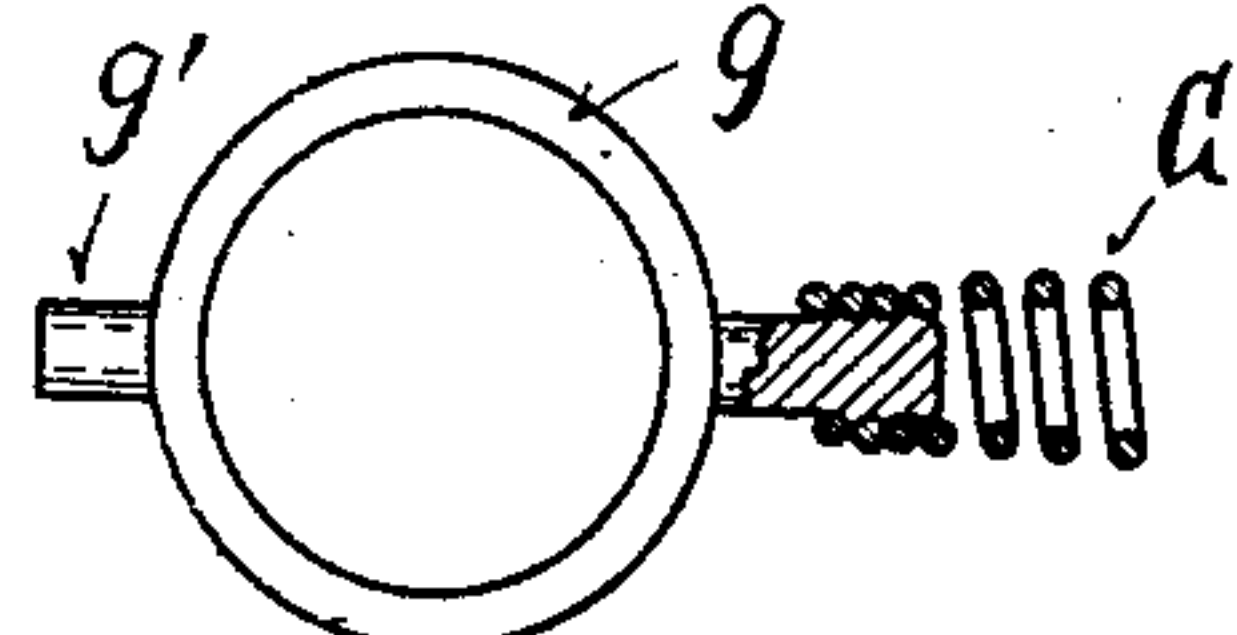
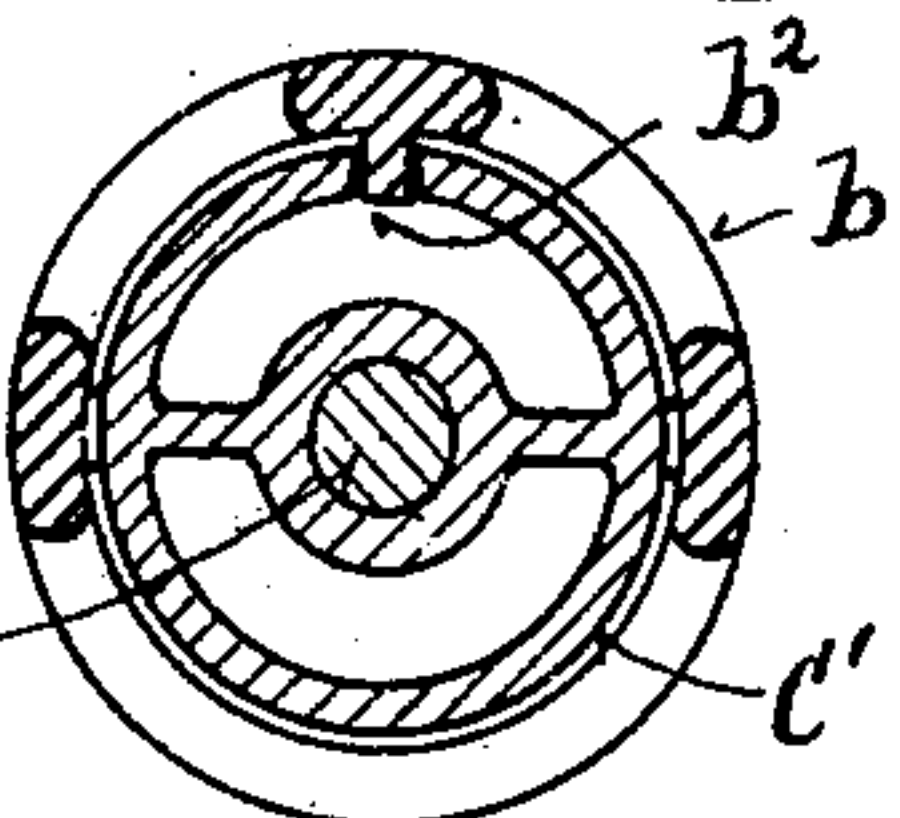


Fig. 6.

Witnesses

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UNITED STATES PATENT OFFICE.

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WASHBASIN.

No. 912,598.

Specification of Letters Patent.

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Application filed November 25, 1907. Serial No. 403,582.

To all whom it may concern:

Be it known that I, DANIEL W. McNEIL, a citizen of the United States of America, and resident of Cincinnati, county of Hamilton, State of Ohio, have invented certain new and useful Improvements in Washbasins, of which the following is a specification.

My invention relates to porcelain basins having integral over-flow water ways, and waste valves which are opened by moving knobs located at the upper ends of the over-flow water ways and making connections with the valves through said water ways.

The object of my invention is a construction whereby the waste valve may be opened by turning the knob in either direction, which while positive in its action, does not require a delicate adjustment, so that it is not readily thrown out of adjustment in use, and which, for cleansing, may be readily removed and replaced.

Referring to the accompanying drawings in which like parts are indicated by similar reference letters: Figure 1 is a view in central section through the basin and over-flow water way and valve seat, and in elevation of the valve, the knob and the mechanism connecting the knob and the valve embodying my invention. Fig. 2 is a plan view of the parts illustrated in Fig. 1. Fig. 3 is an enlarged detail sectional view through the knob, the over-flow grating and the upper end of the flexible shaft. Fig. 4 is an enlarged detail sectional view of the waste valve, the valve seat and the arm for raising the valve, taken upon line $x-x$ of Fig. 1. Fig. 5 is a horizontal sectional view upon line $v-v$ of Fig. 4. Fig. 6 is a detail plan view of the lower end of the flexible shaft and the arm for raising the valve.

Basin, A, has an over-flow water way, a , the walls of which are formed integral with the basin and terminate in alinement with the waste port, a' , of the basin.

Valve seat, B, is a metal ring having formed integral with it a frame, b , which supports a central guide tube, b' . Tube, b' , is connected to the frame, b , by radial arms, b^4 , b^5 . The stem, c , of the waste valve, C, extends down through the guide tube, b' , and has secured upon it a skeleton disk, c' , the ring of which is slotted so as to pass a guide rib, b^2 , upon the frame, b , of the valve seat. Below the rib, b^2 , is a perforation, b^3 , in the frame, b .

Over-flow grating, D, has a downwardly projecting annular hub, d , in the front face of which are a series of screw-threaded perforations, d' , d^2 , and the front wall of the over-flow water is perforated to receive a screw, d^3 , for engaging one of the perforations, d' , or d^2 , to secure the grating in place. Waste knob, E, has a hollow stem, e , which projects through the collar, d , and is held rotatably in place therein by a nut, e' , which is perforated at e^2 . Situated within the stem, e , is a rod, e^3 , which has a longitudinal slot, e^4 , into which a set-screw, e^5 , passes, to permit of an adjustment of the rod, e^3 , within the stem, e . Flexible shaft, G, is secured to the end of the stem, e^3 , and is made preferably of a coiled wire. Shaft, G, has secured to its lower end a ring, g , which has a journal pin, g' , formed integral with it. The ring, g , surrounds the valve stem, c , below the spider, c' , and the journal pin, g' , is seated in the perforation, b^3 , in the frame, b . Arms, b^4 , b^5 , are below the ring, g , a distance less than its radius, and in the closed position of the valve, C, the ring, g , is above the ring, g' , a distance likewise less than the radius. Arms, b^4 , b^5 , have notches, b^6 , b^7 , cut in them in the path of the ring, g , and the arms which support the rings, c' , have notches, c^2 , c^3 , cut into them.

The process of placing the flexible shaft and its ring, g , in position and of removing the same for cleansing, is a simple one. When the device is placed in private dwelling houses, the nut, c^4 , is omitted from the valve-stem, c . To remove the parts, then, it is necessary only to lift the valve, C, and its stem, c , out of the seat, B, and the frame, b , and loosen the screw, d^3 , when the grating, the knob, E, carrying with it the flexible shaft, G, and the ring, g , may be lifted out of the over-flow water way. In replacing the parts, the flexible shaft, G, is passed down through the over-flow water way, a , the journal pin, g' , is placed in the perforation, b^3 , and then the valve stem, c , is passed down through its guide, b' , and the grating is secured in place by means of the screw, d^3 . These are operations which may be readily performed by an unskilled person, since the parts require no delicate adjustment. When the knob, E, is rotated in one direction, ring, g , is carried to a position at an angle to the horizontal and its periphery takes into notch, b^6 , in the arm, b^4 , and notch, c^3 , of the

disk, c' , and raises the valve, C. If the knob, E, be moved in an opposite direction, ring, g , is carried at an angle to the horizontal in a direction opposite to that just described and
 5 takes into notch, b^7 , in the arm, b^5 , and into notch, c^2 , in the disk, c' , and likewise raises the valve, C. The notches, b^6 and c^3 , or, b^7 and c^2 , have sufficient engagement with the ring, g , by reason of the weight of the valve,
 10 C, to hold the valve in its elevated position.

What I claim is:

1. In a basin having an integral overflow water-way communicating with a waste port the combination of a valve seated against the
 15 waste port and having a downwardly projecting stem, an arm journaled within the walls of the waste port adjacent to the valve stem and adapted to engage the valve stem and to raise the valve when rotated in either
 20 direction, a waste-valve operating handle and a coiled spring located in the over-flow water way coupled to said handle at one end and at the other end connected to the arm so that the rotation of the handle in either
 25 direction raises the valve.

2. A basin having an over-flow water way formed integral therewith and communicating with the waste channel and a valve seated against the waste port and having a
 30 valve stem projecting downward therein in combination with a lug secured to the valve stem, a ring surrounding the valve stem and having a pin journaled in the walls of the waste channel, a waste valve operating han-
 35 dle and a flexible shaft located in the over-flow water way coupled at one end to the handle and at the lower end to the ring, whereby the rotation of the handle in either direction causes the ring to contact the lug of
 40 the valve stem and to raise the valve.

3. A basin having a waste port, an integral over-flow water way extending below the waste port, a valve seat in the waste port, a frame connected to the seat and projecting
 45 down from it and having a journal bearing therein, a ring journaled in the frame, a waste valve operating handle, a flexible shaft extending through the over-flow water way and connected at one of its ends to the
 50 handle and at the other to the ring, a valve seated upon the valve seat and having a stem extending down through the ring and projections upon each side of the valve stem to be contacted by the ring when the latter is
 55 rotated in one direction or the other to raise the valve from its seat.

4. A basin having an over-flow water way and a waste port communicating therewith in combination with a valve seat in the waste
 60 port, a valve whose stem projects into the water-way, lugs projecting from the valve stem, a frame projecting down from the valve seat and having arms projecting inward below the lugs on the stem and a
 65 perforation above the arms, a ring surrounding the valve stem between the lugs on the stem and the arms on the frame and having a journal pin seated in the perforation in the frame, a rotatory handle at the upper end of
 70 the over-flow water way and a flexible shaft in the water way and connected at one end to the handle and at the other end to the ring, whereby the rotation of the handle carries the ring into contact with the lugs and
 arms and raises the valve.

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Witnesses:

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