

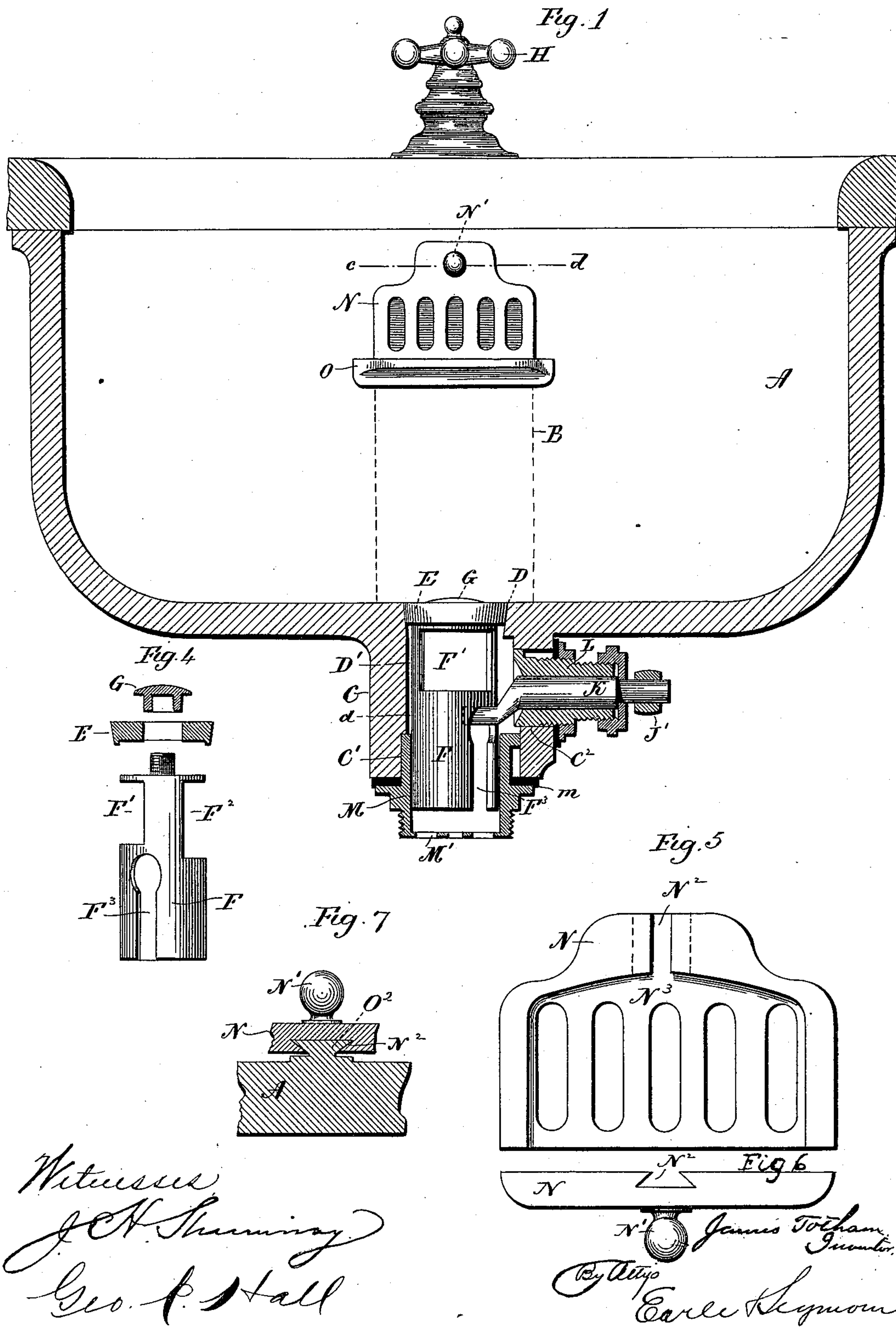
(No Model.)

4 Sheets—Sheet 1.

J. TOTHAM.
WASHBOWL.

No. 539,203.

Patented May 14, 1895.



(No Model.)

4 Sheets—Sheet 2.

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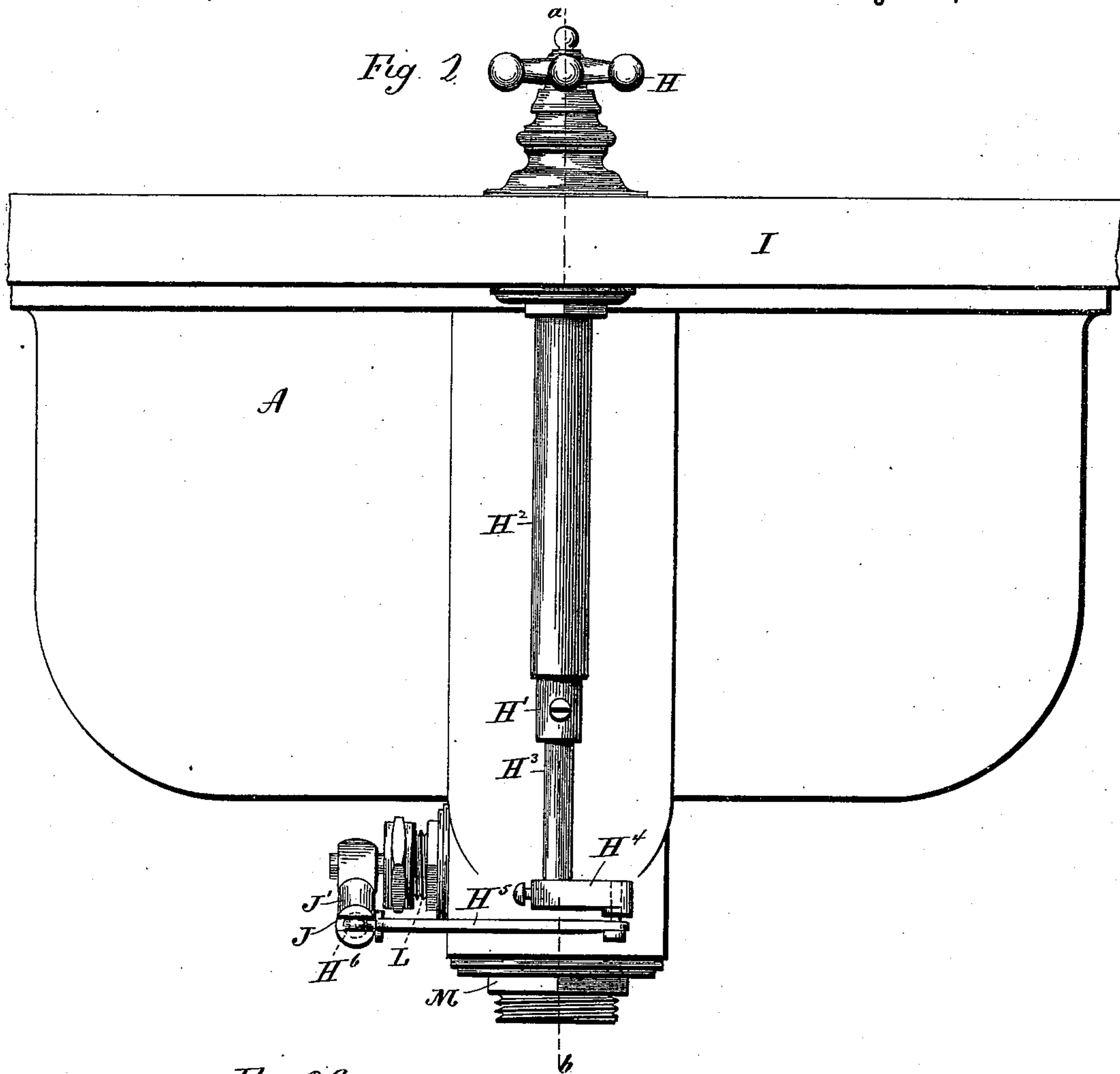
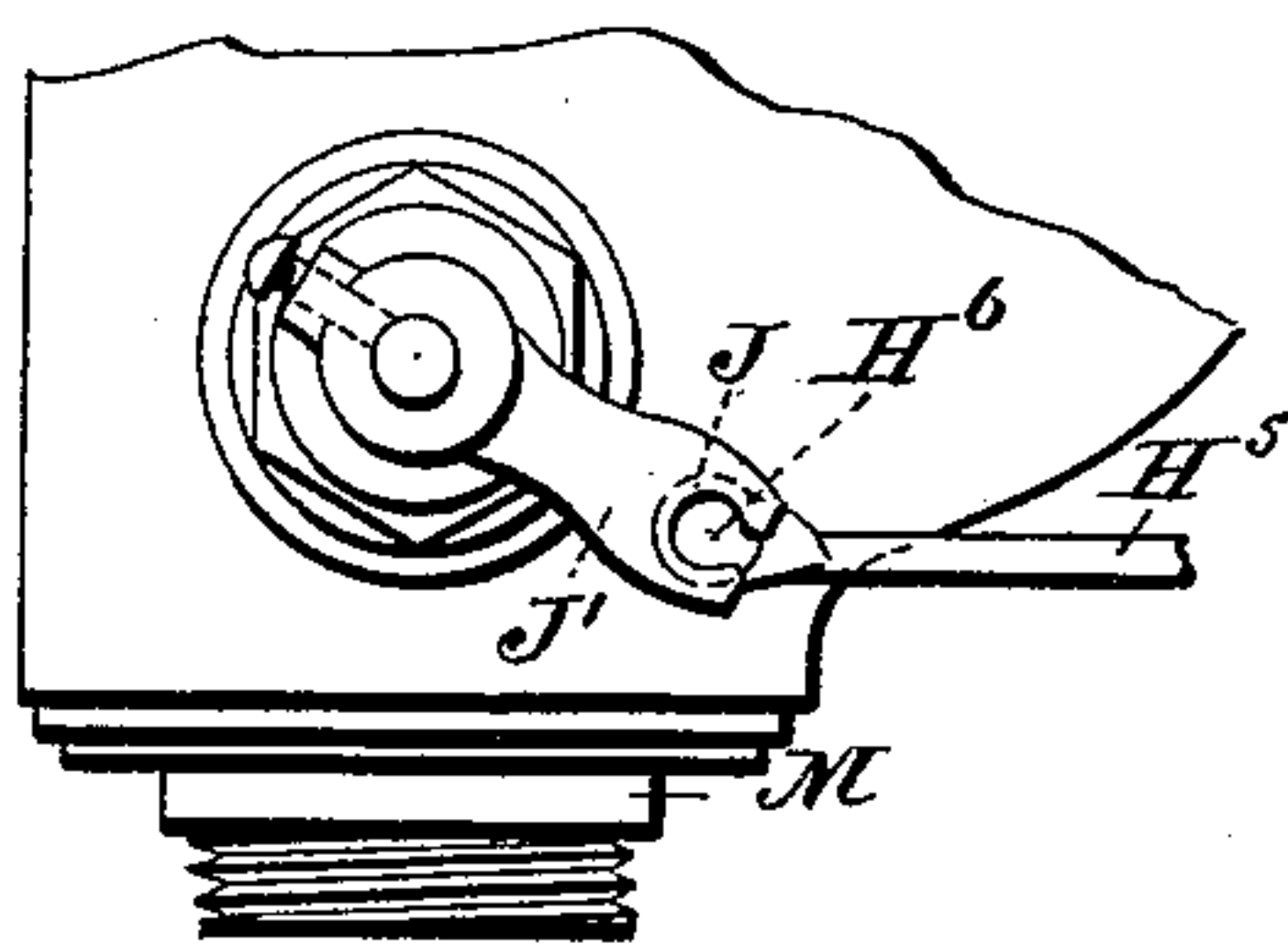


Fig. 2²



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(No Model.)

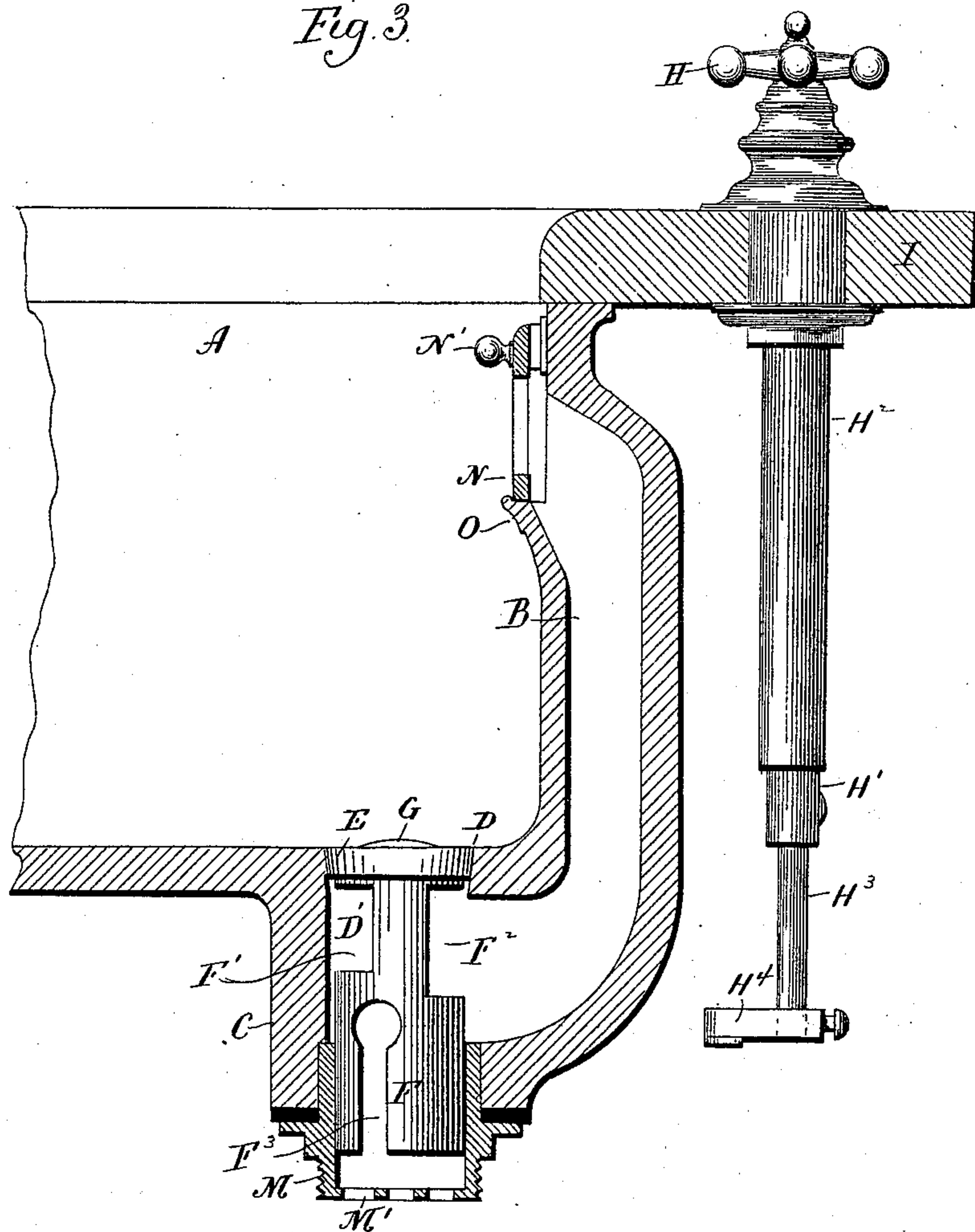
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Fig. 3.



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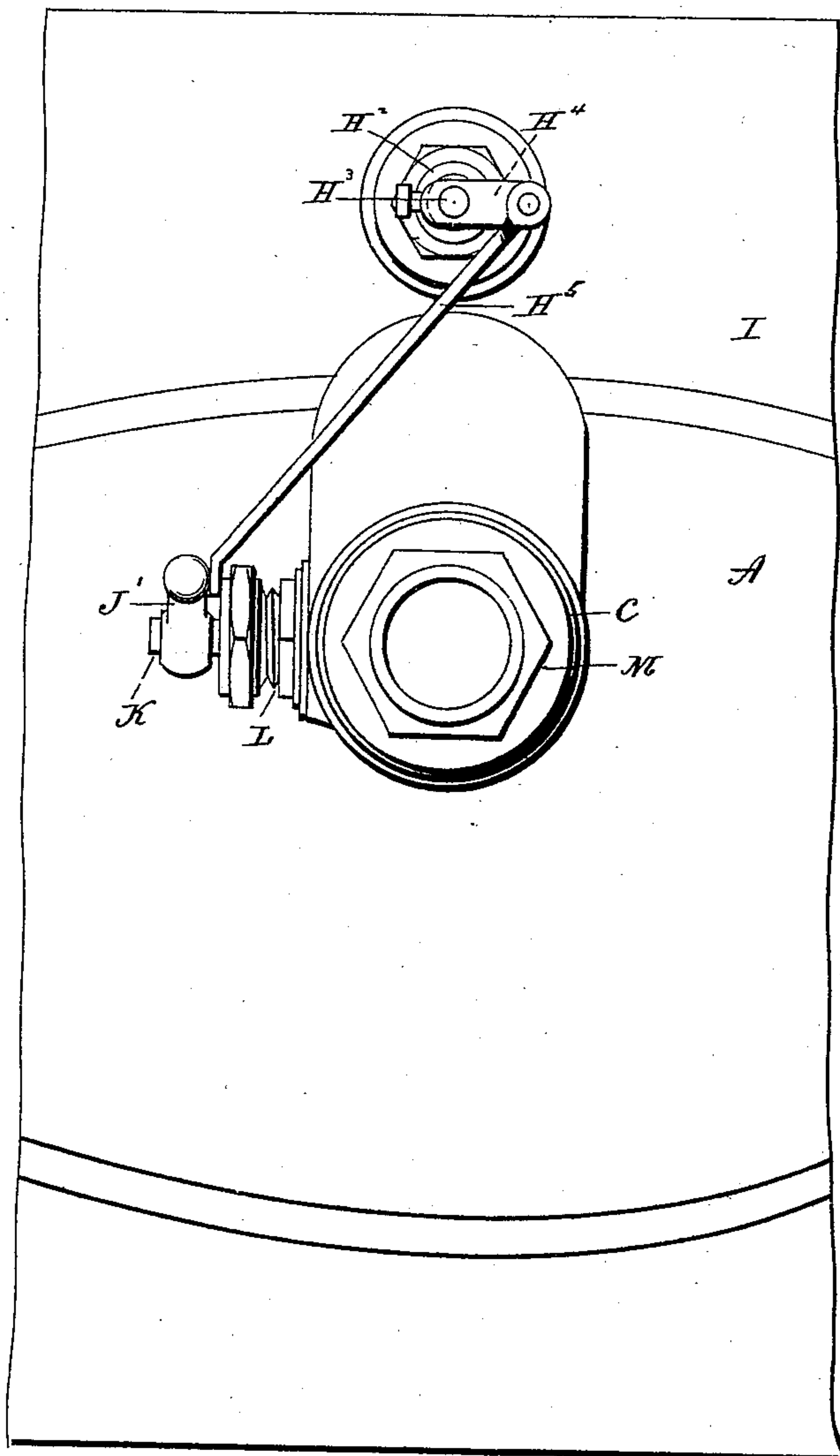
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Fig. 8



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UNITED STATES PATENT OFFICE,

JAMES TOTHAM, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO THE PECK BROS. & COMPANY, OF SAME PLACE.

WASHBOWL.

SPECIFICATION forming part of Letters Patent No. 539,203, dated May 14, 1895.

Application filed September 25, 1894. Serial No. 524,049. (No model.)

To all whom it may concern:

Be it known that I, JAMES TOTHAM, of New Haven, in the county of New Haven and State of Connecticut, have invented a new Improvement in Washbowls; and I do hereby declare the following, when taken in connection with the accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which
10 said drawings constitute part of this specification, and represent, in—

Figure 1, a view, partly in inside elevation and partly in vertical section, through a washbowl constructed in accordance with my invention; Fig. 2, a rear view of the bowl; Fig. 2^a, a partial view, in side elevation, of the operating connections of the valve, with particular reference to the crank-arm connected with the eccentric; Fig. 3, a view of the bowl
20 in vertical section on the line *a b* of Fig. 2; Fig. 4, a detached view of the valve, the parts of which are separated, and the retaining-button and valve being shown in section; Fig. 5, a detached view, in inside elevation, of the removable strainer; Fig. 6, a plan view thereof; Fig. 7, a sectional view, on the line
25 *c d* of Fig. 1, through the upper end of the strainer and the projection formed integral with the bowl at a point above the overflow-opening; Fig. 8, a reverse plan view of my improved washbowl and the several connections thereof.

My invention relates to an improvement in washbowls for lavatories, the object being to
35 produce a simple, compact and convenient sanitary article, constructed with particular reference to convenience of operation, cleaning and repair, and to the avoidance of fouling.

40 With these ends in view, my invention consists in a washbowl having certain details of construction and combinations of parts, as will be hereinafter described and pointed out in the claims.

45 In carrying out my invention, I employ an earthenware bowl A, having a vertical overflow passage B and an outlet C formed integral with it, or in other words, molded in the same piece. It will be observed by reference
50 to Fig. 3 of the drawings, that the main and longer portion of the overflow passage is ver-

tically arranged upon the back of the bowl, where it forms, as it were, a protuberance, while its lower portion extends forward under the bowl and terminates in the outlet C, which
55 is constructed with a vertical spud-hole C', opening directly downward, and a smaller lateral spud-hole C², arranged horizontally at a point above the said vertical spud-hole.

In the bottom of the bowl and in the center of the rear portion thereof, I form directly
60 in the earthenware a slightly tapering valve-seat D, which opens into a valve-chamber D', located in line with and opening at its lower end into the spud-hole C'.
65

I wish to call particular attention to the point which I have mentioned of making the bowl, overflow passage and outlet integral with each other, and of forming the valve-seat and chamber directly in the bowl. The advantages derived from this construction will
70 appear later on.

By preference I employ a molded rubber annular outlet valve E, having slightly tapered walls, corresponding in pitch to the
75 pitch of the walls of the valve-seat D. The lower face of this valve is slightly recessed, to adapt it to be set down over the closed upper end of a tubular valve-stem F, having lateral
80 discharge openings F' and F², which may of course be replaced by openings of other forms. The valve is secured to this stem by means of a flanged button G, fitting into the central
85 circular opening E' of the valve and having its shank counterbored and internally threaded to receive a short threaded stud, extending upward from the center of the closed upper
90 end of the stem. Under this construction, the valve and stem are readily assembled and the valve conveniently renewed, if desired.

I would mention here that I do not limit myself to the use of the rubber valve, as it might
95 be replaced by a metal valve of the same, or substantially the same shape; nor do I limit myself to securing the valve to the stem in the manner shown.

The valve stem F is nearly as large in diameter as the diameter of the valve-chamber D', so that only a very small clearance space
100 *d* is left between them. By reference to Fig. 1 of the drawings, it will be seen that this space is only large enough to permit the stem

to clear the walls of the chamber as the valve is raised and lowered, and affords no opportunity for the accumulation of foreign substances to foul the bowl. Generally a metal valve-seat is fitted into the bowl to receive the valve, and generally also a metal lining is inserted into the bowl to form a chamber for the valve-stem; but the use of a metal valve-seat and lining makes the bowl more complicated and more liable to foul, for it is impossible to prevent the accumulation of foul matter between the bowl and the exterior surface of the lining, which cannot be conveniently removed after it has once been set in place; whereas, under my construction, by lifting out the valve and stem, the valve-chamber can be readily wiped clean, if there is anything in it. The cleaning of the valve-chamber and overflow passage is effected at the same time, by introducing a cloth into the overflow opening B', then passing one end of it downward through the overflow passage into the valve-chamber, and drawing it upward through the valve-seat into the bowl. Then, by holding the opposite ends of the cloth, it may be sawed or rubbed back and forth in such a manner as to perfectly clear the overflow passage B² and the valve-chamber.

The valve is raised and lowered by the turning in either direction of a handle H, secured to the upper end of a guide H', located within a guide-stem H², which depends from the flange I of the bowl. A shaft H³, adjustably secured to the guide, is furnished at its lower end with a crank-arm H⁴, the outer end of which is connected with one end of a pitman rod H⁵, furnished at its opposite end with a ball H⁶, which in turn fits into a suitable socket J formed in the outer end of a crank-arm J', applied to the outer end of an eccentric K, located within a spud L placed in the lateral spud-hole C² formed in the outlet C of the bowl. The extreme inner end of the eccentric enters the circularly enlarged upper end of a vertical slot F³, formed in the valve-stem. It will be readily seen that, under this construction, the valve may be raised for discharging the contents of the bowl, by turning the handle in either direction, whereas, as generally constructed, the handle must be turned exclusively in one way for raising the valve. By enlarging the upper end of the slot F³, the eccentric engages with the walls of the enlarged portion of the slot in such a manner as to give the valve such a start in closing that any tendency to hang back or stick will be overcome, and any ordinary obstruction to the closing of the valve will be displaced. I would have it understood, however, that I do not limit myself to the particular means for operating the valve, as they may be replaced by others. The vertical spud-hole C', located in the bottom of the outlet, receives an ordinary spud M, constructed with lugs m, which lock it in place. This spud M has attached to it a trap, or is directly connected with the tail-pipe or any other outlet connec-

tion. It will be noticed that the lower end of the valve-stem enters the upper end of the spud M, the lower end of which is furnished with a strainer M'. The spud thus serves to guide the valve-stem, which is not guided by means of the valve-chamber, which it clears.

Generally the means employed for raising the valve are mounted in the outlet spud. By employing two spuds, as described, and mounting them independently of each other in the outlet of the bowl, I avoid the use of a long spud inserted from the inside of the bowl and having the means for operating the valve applied to it after its insertion. My construction is much more convenient of attention and repair, as the valve-operating device may be detached or repaired without any reference whatever to the valve or the outlet connections of the bowl.

The upper end of the overflow passage B terminates in an overflow opening B', the lower wall of which is thrown outward to form a supporting lip B³, which supports against downward movement, a removable strainer N, the lower edge of which rests upon the lip. This strainer is adapted in size to cover the overflow opening, and as shown, is contracted at its upper end and furnished with an outwardly projecting, button-like handle N', by means of which it is raised vertically for its removal from a suitable lug-like projection O, extending inwardly from the bowl at a point centrally above the overflow passage. To adapt the strainer to be engaged with this projection, it is constructed upon its inner face with a vertically arranged dovetail groove N², open at both ends, and centrally intersecting at its lower end a large recess N³, extending nearly throughout the area of the inner face of the strainer, as shown in Fig. 5. This recess forms a clearance for the projection when the strainer is raised for removal, and also permits the projection to be entered into the lower end of the groove in replacing the strainer in front of the overflow opening. The said projection may be made integral with the bowl, or applied thereto. The lip B³ forms a fender against the accidental displacement of the strainer by hitting its lower edge. I do not, however, limit myself to a strainer constructed or applied as shown.

I would have it understood that in carrying out my invention, changes from the particular construction shown and described may be made, and I would therefore have it understood that I do not limit myself to the exact construction herein shown, but hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

I am aware that an earthen-ware wash-bowl having a valve-seat adapted to receive a valve in direct contact, is old; that a wash-bowl having a tubular valve constructed with a vertical slot to receive the inner end of a member of a valve-operating train is old; that the combination with the valve and valve-

stem of a wash-bowl, of a handle, and operating connections including an eccentric connected with the valve-stem and adapted to be operated for lifting the valve when the handle is turned in either direction is old. I do not, therefore, claim any of those constructions broadly.

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

1. The combination with an earthenware washbowl, having a valve-seat, a valve-chamber located in line with and below the same, a spud-hole located in line with and below the said chamber, and an overflow passage which, at its lower end, intersects the said valve-chamber at a point between the valve-seat and spud-hole; of a spud located in the said spud-hole, a valve to coact with the said valve-seat, a tubular valve-stem, carrying the said valve at its upper end and extending downward through the valve-chamber, which is only large enough to clear it, and into the upper end of the spud in which it has bearing, a handle located above the bowl, and operating connections between the handle and the tubular valve-stem, substantially as set forth.

2. The combination with an earthen-ware wash-bowl having a valve-seat, a valve-chamber located in line with and below the same, and a spud hole located in line with and below the said chamber, a spud located in the said spud hole, outlet connections applied to the said spud, a valve, a tubular valve-stem located in the said valve-chamber and extended at its lower end into the said spud in which it has bearing, a handle, and operating connections between the handle and valve for the operation of the same, substantially as described.

3. The combination with an earthen-ware wash-bowl having a valve-seat, a valve chamber, a vertical spud-hole, and a lateral spud-hole; of spuds located in the said holes, a valve, a tubular stem therefor located in the said valve-chamber, and at its lower end entering and having bearing in the spud in the vertical spud-hole, a handle, and operating connections between the same and the valve, including an eccentric mounted in the spud in the said lateral spud-hole and taking at its inner end into the said tubular valve-stem, substantially as described.

4. The combination with an earthen-ware wash-bowl having a valve-seat and a valve-chamber, of a valve coacting with the said seat, a tubular valve-stem located in the said chamber, and constructed with a vertical slot open at its lower end and circularly enlarged at its upper end, an operating handle located above the bowl, and connections between the said handle and valve-stem including an eccentric which extends into the circularly enlarged upper end of the slot in the valve, substantially as set forth.

5. A washbowl having an inwardly extend-

ing projection located centrally above the overflowing opening, in which the upper end of the overflow passage terminates, and also having a removable strainer, the inner face of which is recessed and constructed centrally above the said recess, with a vertically arranged groove to receive the said projection for holding the strainer in place and from which it is lifted for removal, substantially as set forth.

6. An earthenware washbowl, having an overflow passage terminating at its upper end in an overflow opening and at its lower end in a valve-chamber, and constructed with an integral projection formed centrally above the said overflow opening, and also having a removable strainer adapted to screen the said opening, and constructed upon its inner face with a vertically arranged dovetail groove to receive the said projection, which prevents the strainer from falling forward and from which the strainer is lifted vertically, substantially as set forth.

7. The combination with an earthen-ware wash-bowl having a valve-seat, a valve-chamber located directly below the same, an overflow passage opening at its lower end into the said valve-chamber, a vertical spud-hole located below and in line with the valve-chamber, and a lateral spud-hole, of spuds located in the said spud-holes, a valve to coact with the said seat, a tubular valve-stem located in the valve-chamber, having lateral discharge openings, and extending at its lower end into the spud in the vertical spud-hole and having bearing therein, an operating handle located above the bowl, and operating-connections between the handle and the valve, including an eccentric mounted in the spud in the lateral spud hole, and extending at its inner end into a vertical slot formed in the tubular valve-stem and open at its lower end and enlarged at its upper end, substantially as described.

8. The combination with an earthenware bowl, having an outlet, and a valve-seat and an overflow passage leading into the said outlet which has a valve-chamber and a vertical spud-hole and a lateral spud-hole formed in it; of a valve located upon the said seat and having a stem entering the said valve-chamber, a spud located in the vertical spud-hole of the outlet and receiving the lower end of the valve-stem, for which it forms a bearing, a spud located in the lateral spud-hole of the outlet, an eccentric located in the spud last mentioned and taking into the valve, an operating handle located above the bowl, and operating connections between the handle and eccentric, substantially as set forth.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

JAMES TOTHAM.

Witnesses:

J. H. SHUMWAY,
FRED C. EARLE.