

(No Model.)

J. J. WADE.  
HAND BASIN.

No. 456,176.

Patented July 21, 1891.

Fig. 1.

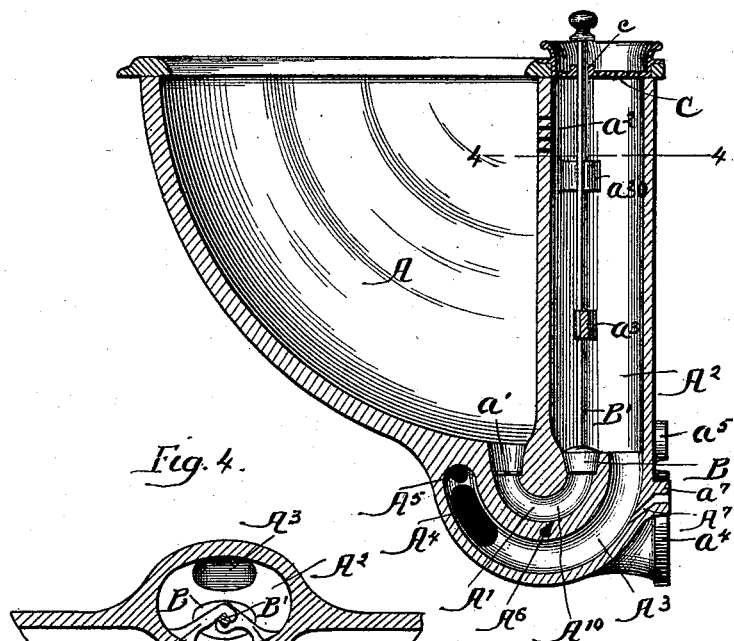


Fig. 4.

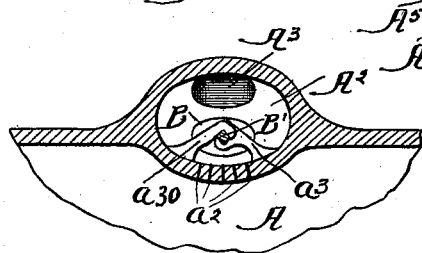


Fig. 3.

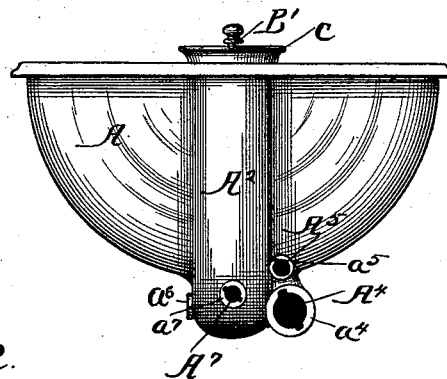


Fig. 5.

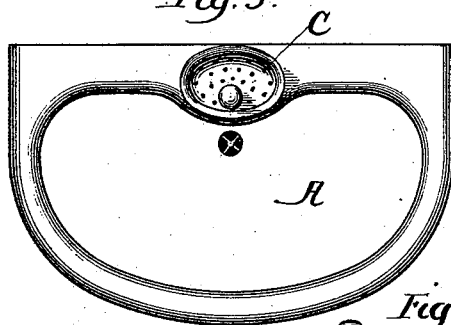
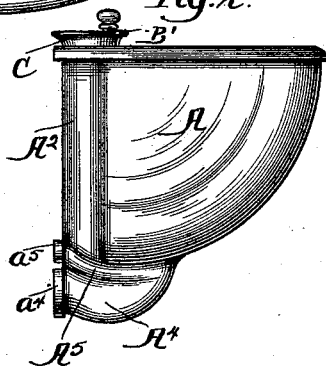


Fig. 2.



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# UNITED STATES PATENT OFFICE.

JAMES J. WADE, OF CHICAGO, ILLINOIS.

## HAND-BASIN.

SPECIFICATION forming part of Letters Patent No. 456,176, dated July 21, 1891.

Application filed September 11, 1890. Serial No. 364,606. (No model.)

### *To all whom it may concern:*

Be it known that I, JAMES J. WADE, a citizen of the United States, residing at Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Hand-Basins, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part thereof.

10 In the drawings, Figure 1 is a vertical section. Fig. 2 is a side elevation. Fig. 3 is a rear elevation. Fig. 4 is a section at the plane of line 4 4 on Figs. 1 and 3. Fig. 5 is a plan.

15 The purpose of this invention is to provide a hand-basin which shall have an elevated or marginal overflow, but which shall have the waste-outflow adapted to be controlled after the manner of basins with bottom overflow  
20 by a plug operated by a pull-handle outside the upper margin of the bowl, and which shall avoid the standing column in the overflow-passage which the more convenient form of bottom overflows produce, and which shall  
25 have the direct overflow and the direct waste trapped in the earthenware of the bowl, the overflow and direct waste and final waste passages being all formed integrally with the bowl; secondarily, I aim to make all the pas-  
30 sages easily accessible for swabbing out without providing any hand-hole solely for that purpose, the construction designed for the primary purpose being adapted to accomplish this result also. Incidentally I provide in connection with the basin and adapt the basin  
35 for a soap-cup which drains into the overflow and final waste.

I have also another prominent purpose—to provide a flushing connection for the traps  
40 and passages, and specifically to locate such flushing-jets so that the concealed plug operated by the pull shall be washed thereby.

A is the bowl.

A' is the direct-waste passage, having the  
45 waste-orifice  $a'$  of the bowl as its receiving-mouth. This waste-passage comprises the trap A<sup>10</sup>, and, as illustrated, the trap constitutes the greater part of the said direct-waste  
50 passage.

A<sup>2</sup> is the overflow-passage. It occupies a space at the rear or side of the bowl, extending the entire height of the latter, and opens

at the top in the plane of the top opening of the bowl, and the slab is provided with a corresponding opening or recess out of the main  
55 opening for the mouth of the bowl. The bowl has the usual overflow-aperture  $a^2$  in its side wall near its upper margin, which leads into the overflow-passage A<sup>2</sup>. The overflow-passage is at the lower end more than double the  
60 width of the direct-waste passage A', which opens upwardly into it, the remainder of the width being occupied by the mouth of the overflow-trap A<sup>3</sup>, which descends, curving forward adjacent to the trap A<sup>10</sup> and upward,   
65 following substantially the curvature of that trap toward the forward side, where it meets the under surface of the bowl and then becomes the final-waste passage A<sup>4</sup>, which leads rearward and downward, terminating in the  
70 boss  $a^4$ , which is adapted for a pipe connection to the sewer.

B is a stopper or valve adapted to close the mouth of the direct-waste passage at its discharge into the overflow-passage. This stop-  
75 per is connected to a pull handle or stem B', which extends up through the overflow-passage and protrudes from the top of the same, having proper guide-bearings provided to cause it to direct the stopper properly into the  
80 seat formed for it in the mouth of the direct-waste passage A'. Preferably such guide-bearings are formed in the earthenware itself, since there is no necessity for special accuracy, the tapering of the seat being capable of  
85 receiving and centering the plug, if it is directed with approximate accuracy. I make, therefore, the lugs  $a^3$  and  $a^{30}$  on the earthenware of the bowl within the overflow-passage, one of said lugs forming half of a bearing  
90 for the stem B' on one side and the other leg forming half of a bearing on the other side at a distance from the first lug, so that the stem may be inserted inclined, so as to pass the edge of the halves of the bearing  
95 thus constituted and when straightened up be securely lodged in both the half-bearings.

The cap-plate C, which is used to cover the overflow-passage at the top and to sustain or  
100 constitute the soap-cup, as hereinafter explained, has an aperture c, which constitutes a full bearing for the stem B', and the stem having been put into place in the manner described, the plate is put on the stem enter-

ing the aperture or bearing  $c$ , and the cap-plate being made secure causes the stem to be securely retained by the half-bearings  $a^3$  and  $a^{30}$ , and so to be properly guided to seat the plug B. From the highest point of the trap  $A^3$ —that is, the point where it becomes the final-waste passage  $A^4$ —a duct  $A^5$  is formed in the earthenware leading rearward and terminating at a boss  $a^5$  at the rear of the fixture in the same vertical plane as the boss, which terminates the final-waste passage  $A^4$ , such boss being adapted to connect a pipe for ventilation.

It is well known that concealed plugs or valves in waste-passages become foul by the adhesion of filth from the waste-water constantly flowing past them, and to cure this fault I provide the flushing-jet passage  $A^6$ , which is formed in the earthenware leading from the boss  $a^6$ , adapted for a pipe connection through the wall of the passage  $A'$  in the portion constituting the dip or belly of the trap, such duct pointing directly up the uplimb of the trap toward the plug B. A branch of the water-supply pipe is designed to be connected into the boss  $a^6$  and controlled by a suitable valve, so that a jet of clean water under supply-pressure can at any time be directed against the valve B to clean it, as well as the trap  $A^{10}$ . Another flushing-jet may be introduced into the trap  $A^2$ , directed down the downlimb of that trap through the duct  $A^7$  in the earthenware, terminating in the boss  $a^7$ , adapted for pipe connection.

It will be understood that this fixture may be used in the same way as that class of basins having bottom overflow—that is, the plug B, which holds the water in the bowl, is operated by a handle at the top of the slab, avoiding the necessity of using a plug in the bowl itself; but a plug in the bottom of the bowl may be used instead of the plug B, if preferred; but when the plug B is used there is no column of water in the overflow, as is the case with basins having bottom overflow, and the liability to accumulate filth in the overflow-passage from that cause is avoided; also, the size of the overflow being more than equal to that of both the passages  $A^{10}$   $A^3$ , and being without the partition which it would have if adapted to form a bottom overflow, is easily accessible and gives easy access to both the traps for the purpose of cleaning, and thus obviates the necessity of a hand-hole at the bottom for that purpose.

I claim—

1. A hand-basin having a bottom-waste orifice and an overflow-orifice near the upper margin, the overflow-passage extending the entire height of the bowl, the direct-waste passage from the bottom-waste orifice to the lower end of the overflow-passage adapted to be closed by the plug or valve at its entrance into the overflow-passage, and a trap and final-waste passage leading from the bottom

of the overflow-passage, substantially as set forth.

2. A hand-basin having a bottom-waste orifice and an overflow-orifice near the upper margin, the overflow-passage extending the entire height of the bowl, the direct-waste passage from the bottom-waste orifice to the lower end of the overflow-passage adapted to be closed by a plug or valve at its entrance into the overflow-passage, and a trap and final-waste passage leading from the bottom of the overflow-passage, all said passages and the trap being formed integrally with the bowl, substantially as set forth.

3. In combination with the bowl having a bottom-waste orifice and elevated overflow-orifice, the overflow-passage extending alongside the bowl from top to bottom and communicating at the bottom with the bottom-waste orifice of the bowl, a plug within the overflow-passage seating in the opening thereinto from the bowl, and a passage leading downward from the bottom of the overflow-passage and upward to form a trap and terminating in a pipe connection, substantially as set forth.

4. In combination with the bowl having the bottom-waste orifice, the overflow-passage extending alongside the bowl from top to bottom, and a final-waste passage into which the overflow discharges, a direct-waste passage from the bottom-waste orifice to the discharge end of the overflow-passage, a plug located in the overflow-passage and seating at the discharge thereto of the direct-waste passage, and a flushing-jet passage entering said direct-waste passage between the bottom-waste orifice of the bowl and the discharge end of said passage into the overflow, said jet being directed toward said plug, whereby a flushing stream may be discharged through said direct-waste passage against the plug and through the orifice closed thereby over into the final-waste passage, substantially as set forth.

5. A basin having formed integrally the bowl and the overflow-passage alongside the bowl from top to bottom thereof, a direct-waste passage from the bottom of the bowl to the bottom of the overflow, a trap-passage from the bottom of the overflow returning underneath the direct-waste passage to its final discharge toward the sewer, and the jet-passage above the trap and below the direct-waste passage, discharging into the latter toward its opening into the overflow, substantially as set forth.

In testimony whereof I have hereunto set my hand, at Chicago, Illinois, this 8th day of September, 1890.

JAMES J. WADE.

Witnesses:

CHAS. S. BURTON,  
JEAN ELLIOTT.