(No Model.) 2 Sheets—Sheet 1.

J. H. STEVENS.

DISCHARGE VALVE OPERATING DEVICE FOR WASHBASINS, BATH TUBS, &c.

No. 508,585. Patented Nov. 14, 1893.

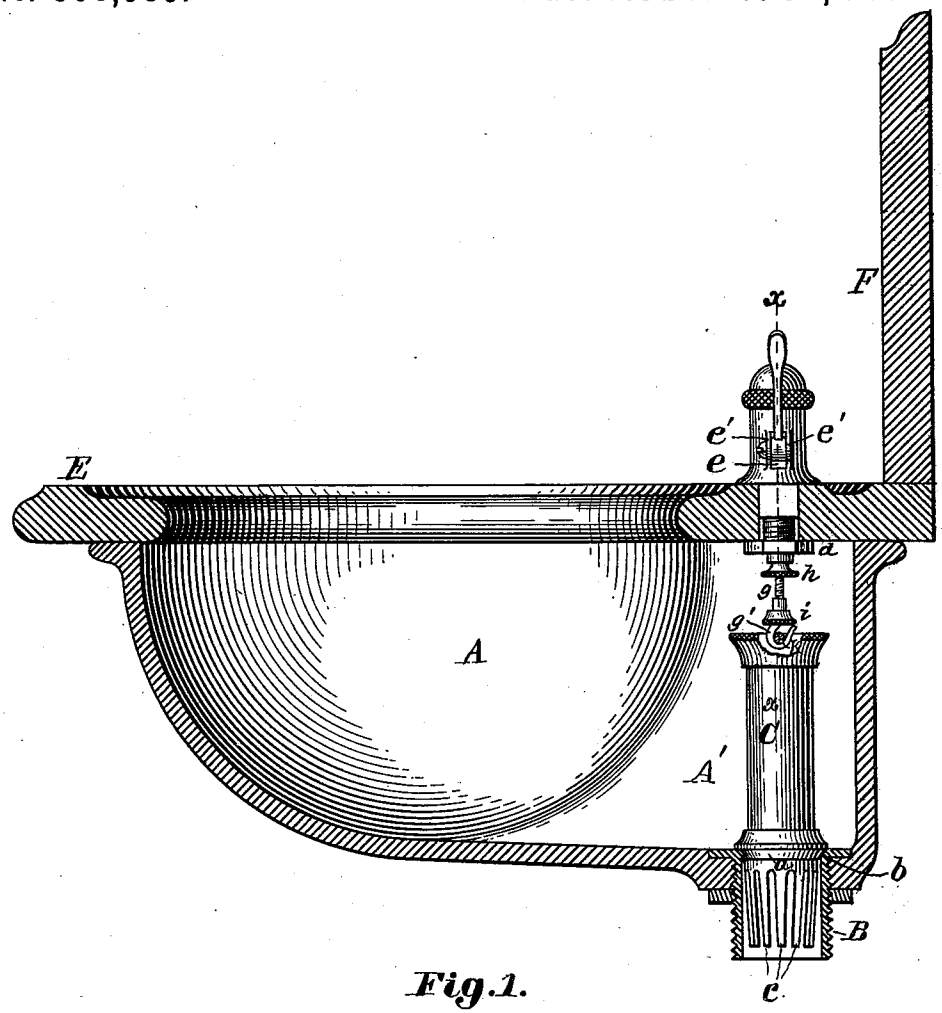

Fig. 1.

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(No Model.) 2 Sheets—Sheet 2.

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DISCHARGE VALVE OPERATING DEVICE FOR WASHBASINS, BATH TUBS, &c.

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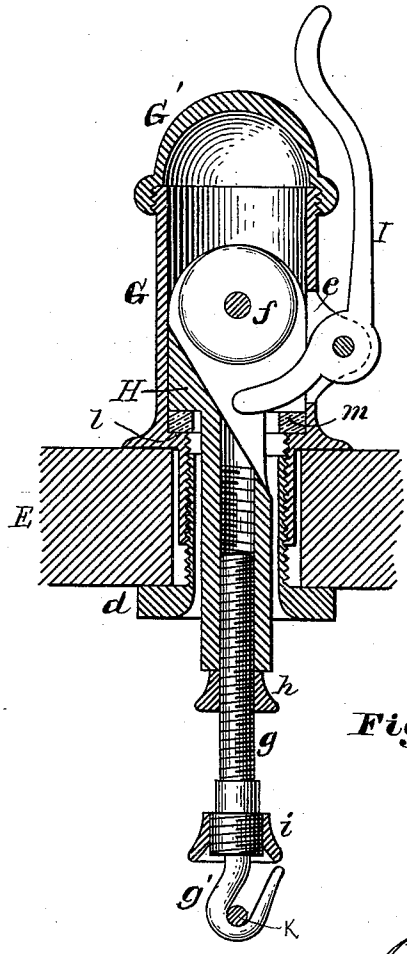

Fig. 2.

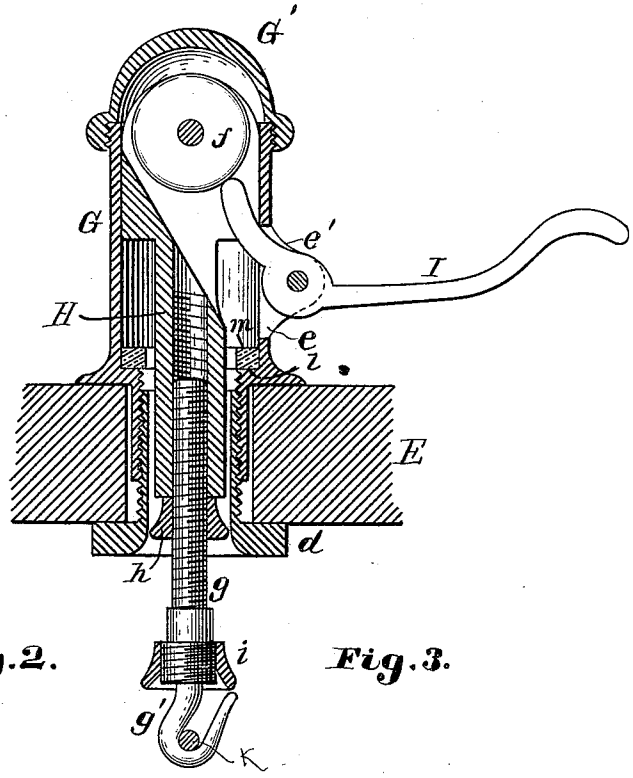

Fig. 3.

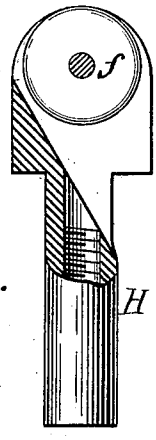

Fig. 4.

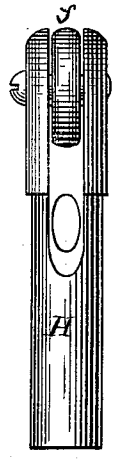

Fig. 5.

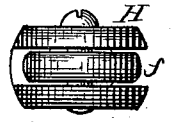

Fig. 6.

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JOHN H. STEVENS, OF CAMBRIDGE, MASSACHUSETTS.

DISCHARGE-VALVE-OPERATING DEVICE FOR WASHBASINS, BATH-TUBS, &c.

SPECIFICATION forming part of Letters Patent No. 508,585, dated November 14, 1893.

Application filed July 5, 1892. Serial No. 438,920. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. STEVENS, of Cambridge, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Discharge-Valve-Operating Devices for Washbasins, Bath-Tubs, &c., of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to devices for operating the discharge valves of wash basins, bath tubs and other like liquid holding receptacles and it consists in certain novel features of construction, arrangement and combination of parts which will be readily understood by reference to the description of the drawings and to the claims hereinafter contained and in which my invention is clearly pointed out.

Figure 1 of the accompanying drawings is a sectional elevation of a wash basin with my invention applied thereto. Fig. 2 is a sectional elevation of the valve lifting devices the cutting plane being on line *x x* on Fig. 1 and showing the parts in position for the valve to be closed. Fig. 3 is a similar sectional elevation with the parts in position for the valve to be open. Fig. 4 is a sectional elevation of the truck carrying plunger. Fig. 5 is an elevation of the same viewed in a direction at right angles to that of Fig. 4, and Fig. 6 is a plan of same.

In the drawings A is a wash basin having a recess A′ at its rear side within which is located the discharge or outlet pipe B within which is set the stand-pipe C open at both ends and provided with the annular conical surface *a* to fit a correspondingly shaped seat *b* formed in the upper end of the pipe B, and having the portion thereof which extends into said pipe B made tapering and divided into a series of tapering fingers *c*, all as shown in Fig. 1.

E represents the marble slab and F the marble back which may be of any desired dimensions and secured in position in any well known manner.

So far the apparatus described is of well known construction and the overflow stand pipe C is so constructed and arranged that in opening the valve to allow the water to escape from the basin the lower end of said pipe is not lifted out of the pipe B so that when the support which holds it in its elevated position is removed said pipe will drop and cause the valve surface to find its seat and close the outlet in a well known manner.

G is a cylindrical casing set in the slab E and secured therein by the tubular nut *d*, and having formed in one side thereof the slot *e* and provided with two ears *e′*, *e′*, one on each side of said slot as shown in Figs. 1, 2, and 3.

H is a forked plunger fitted loosely within said casing and tubular nut and carrying in its upper end the truck *f* in position to be acted upon by the short arm of the lever I pivoted to the ears *e′ e′* to raise said plunger as shown in Figs. 2 and 4.

The upper or forked end of the plunger H is expanded to a width equal to the interior diameter of the casing G and has its edges turned and finished to fit loosely the upper portion of the chamber in said casing so as to be freely movable vertically therein while the smaller tubular portion passes freely through the tubular nut *d* and has its interior threaded to receive the threaded shank or stem *g* on the lower end of which is formed the hook *g′* and provided with the check nut *h* and the guard nut *i* fitted to an enlarged threaded section just above said hook as shown in Figs. 2 and 3. The hook *g′* engages the bar *k* which spans the upper end of the stand or overflow pipe C of which it forms a part, as shown in Fig. 1.

The casing G is provided with the shoulder *l* upon which rests the annular cushion *m* of leather, rubber or other non metallic material to receive and deaden the blow of the falling truck casing forked plunger when the lever is thrown upward into the position shown in Fig. 2, and the upper end of the casing G is closed by the cap G′ as shown.

The operation of my invention is as follows: The several parts being in the position shown in Figs. 1 and 2 with the discharge opening closed by the valve surface on the stand pipe resting upon the valve seat *b*, if it is desired to discharge the water from the basin, the operator moves the lever I from the position shown in Figs. 1 and 2 to the position shown in Fig. 3, thus raising the truck *f*, its carrier, the stem *g*, hook *g′*, and the stand pipe C to a sufficient height to permit a free passage of the water around and between the fingers *c*.

When the lever I has been moved into the position shown in Fig. 3 the point of contact of its short arm with the truck *f* has been transferred to a point between the axis of the truck and the fulcrum of said lever, so as to effectually prevent the descent of the stand pipe and the closing of the outlet through the pipe B until the lever I is returned to the position shown in Fig. 2. The lever I can be moved in either direction by a slight pressure of a single finger, is effective in its operation and the whole apparatus is simple in construction and not liable to get out of order, and all the parts are so constructed and arranged as to be easy of access for cleaning or repairs, and are comparatively inexpensive to manufacture.

What I claim as new, and desire to secure by Letters Patent of the United States, is—

1. The combination with a liquid holding receptacle provided with a discharge orifice and a valve for closing said orifice, of a vertically movable plunger having its upper end forked and mounted in a fixed bearing; a connection between said plunger and valve; an anti-friction disk or wheel carried by the forked end of said plunger; a lever fulcrumed in fixed bearings at a lower level than the axis of said wheel, and constructed and arranged to act upon the periphery of said wheel to raise said plunger and the valve, and at the same time have its point of contact with said wheel moved about the axis of said wheel to a point between, and in line or nearly so with, said axis and the fulcrum of said lever, whereby said lever, after raising said plunger and valve, shall lock them in said raised position.

2. The combination with a liquid holding receptacle provided with a discharge orifice opening from its lowest part, of a stand and overflow pipe provided with an annular valve surface for closing said discharge orifice, and also with a bar extending across the passage through the same; a casing or bearing mounted in a fixed position above said receptacle; a plunger mounted in said bearing and movable vertically therein and having its upper end forked; an anti-friction or revoluble wheel mounted in the forked upper end of said plunger; a stem provided with a hook to engage the bar in said stand pipe and adjustably connected to said plunger; and a lever fulcrumed in fixed bearings, at a level below the axis of said wheel, and constructed and arranged to project beneath and engage with the periphery of said wheel to raise it and said plunger, and to have its point of contact therewith moved about the axis of said wheel to a point between, and in line or nearly so with, the axis of said wheel and the fulcrum of said lever, whereby said lever, after raising said plunger and valve, shall lock the same in said raised position.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, on this 30th day of June, A. D. 1892.

JOHN H. STEVENS.

Witnesses:
N. C. LOMBARD,
A. D. SIMPSON.