

No. 885,574

PATENTED APR. 21, 1908.

C. A. BLESSING.

FLUSH TANK.

APPLICATION FILED MAR. 14, 1908.

Fig. 1.

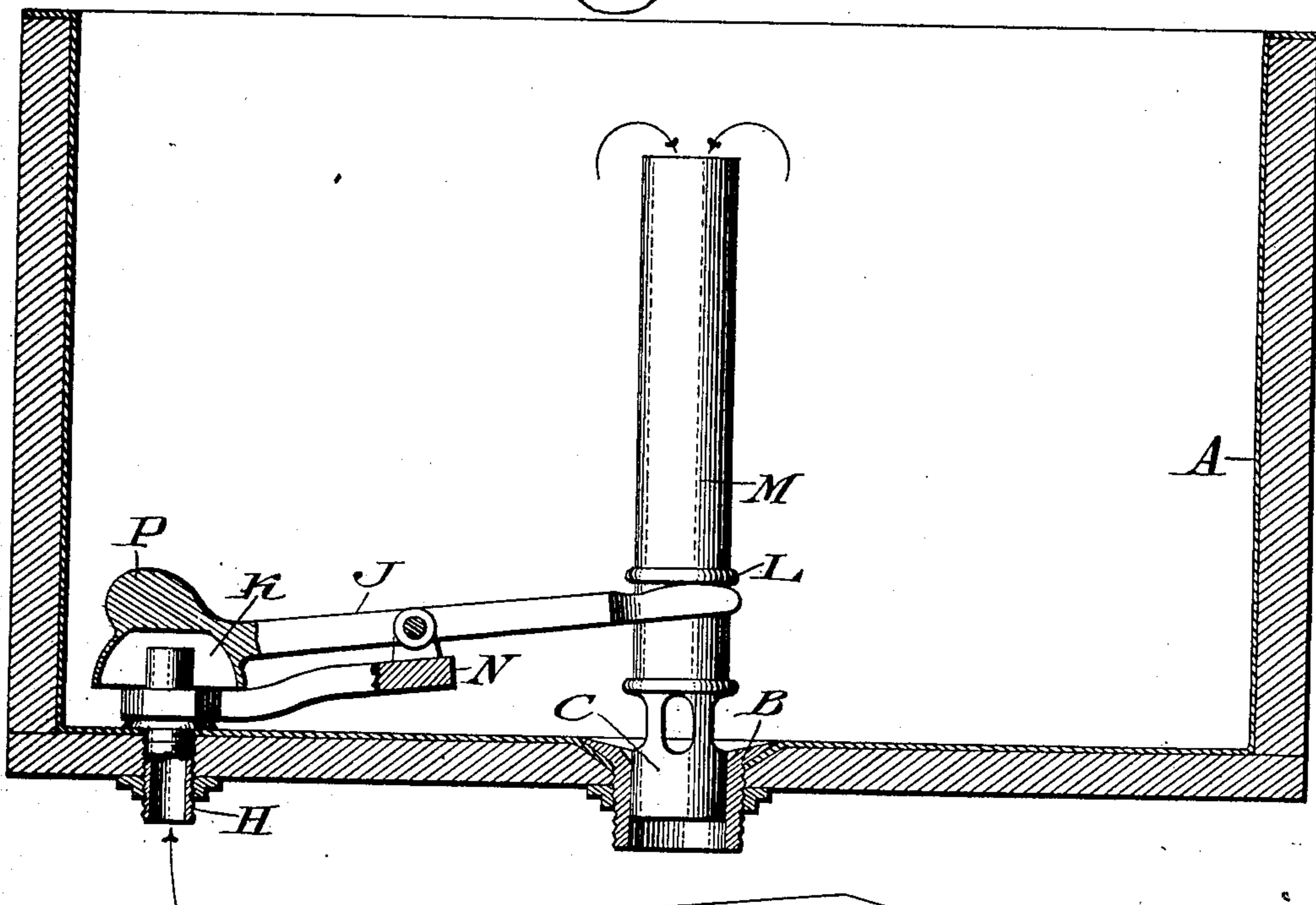


Fig. 2.

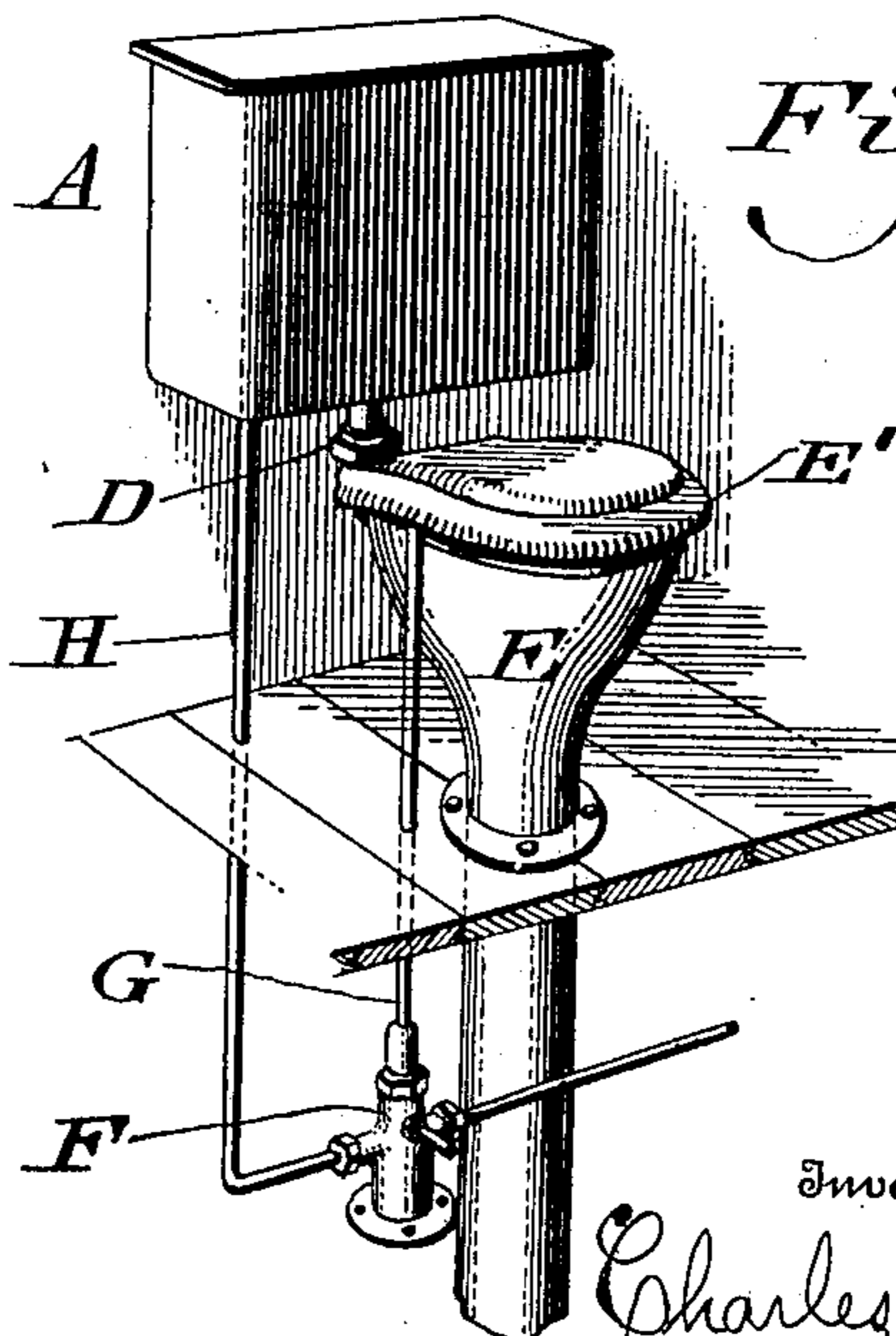
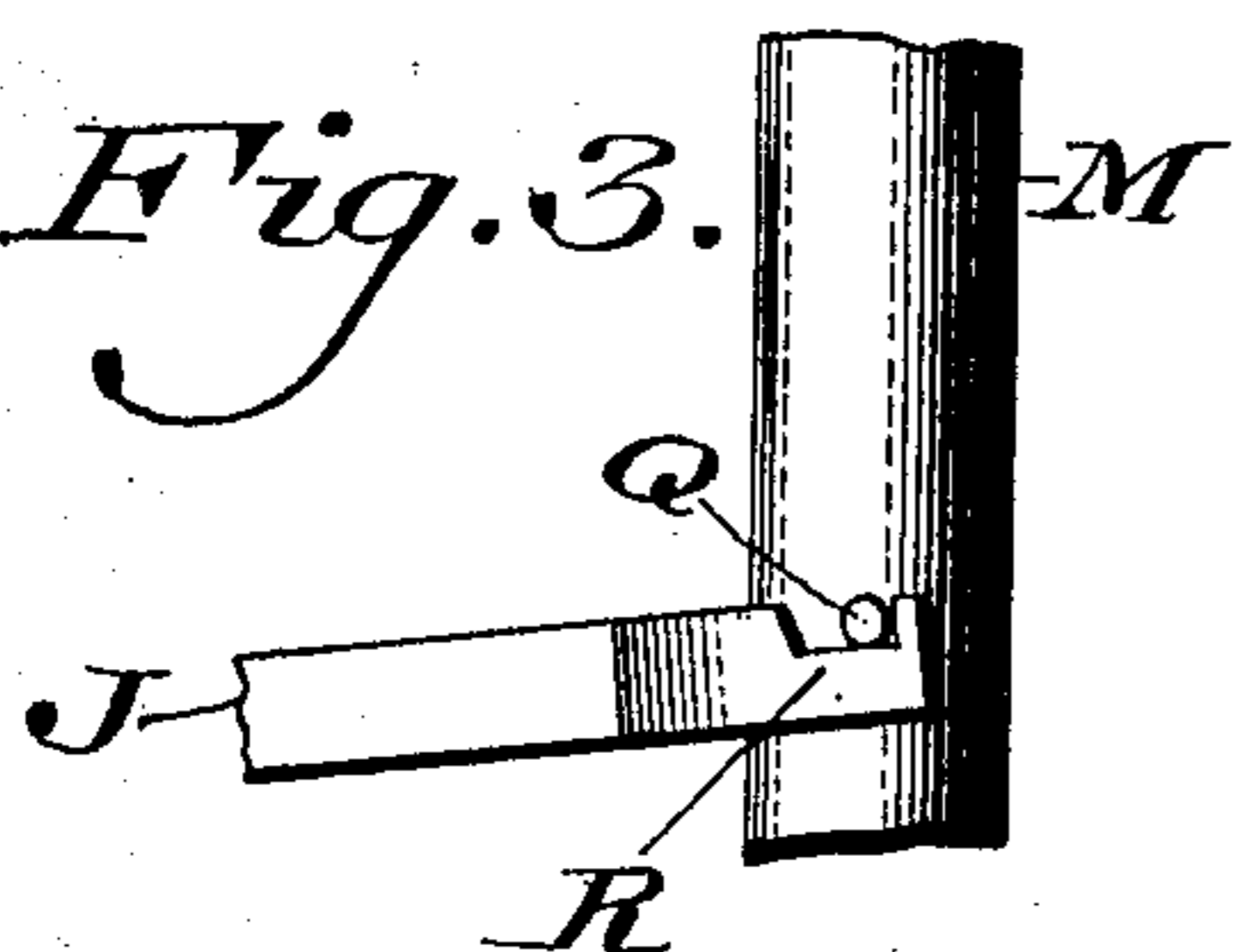


Fig. 3.



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CHARLES A. BLESSING, OF PHILADELPHIA, PENNSYLVANIA.

FLUSH-TANK.

No. 885,574.

Specification of Letters Patent.

Patented April 21, 1908.

Application filed March 14, 1906. Serial No. 305,938.

To all whom it may concern:

Be it known that I, CHARLES A. BLESSING, a citizen of the United States, residing in the city and county of Philadelphia, State of Pennsylvania, have invented a new and useful Flush-Tank, of which the following is a specification.

My invention consists of a flush tank for a water closet bowl provided with a valve which is engaged by a lever, one limb of which is adapted to be subjected to the impact of the inflowing water which is directed to the tank when the seat of said bowl is occupied, thus closing said valve and supplying the tank with water, said lever being relieved on the vacation of said seat, when the valve opens and flushing of the bowl is automatically occasioned.

Figure 1 represents a vertical section of a flush tank embodying my invention. Fig. 2 represents a perspective view, on a reduced scale, of a tank, a bowl and connections, and a sectional view of a supply valve employed. Fig. 3 represents a side elevation of a modification.

Similar letters of reference indicate corresponding parts in the figures.

Referring to the drawings: A designates a flush tank which in the present case is shown in Fig. 2 as low down although my invention is equally adapted to an elevated tank.

In the base of the tank is the seat B of the tubular valve C, said seat being connected in any suitable manner as at D with a flush pipe leading to the bowl E of a water closet.

F designates a supply valve which is properly located and has its stem G adapted to be engaged by the seat E' of said bowl whereby when said seat is occupied, the stem is depressed and the valve is accordingly opened, the water then flowing from said valve through the pipe H to the tank A, said pipe projecting above the bottom of the latter as most clearly shown in Fig. 1.

J designates a lever, one limb of which carries the inverted cup or vessel K which overhangs the top of the pipe H and the other limb engages with a bead or nurl L on the exterior of the stem M of the valve C, said stem being also tubular.

The lever J is mounted on the arm or bracket N which in the present case is secured to a portion of the pipe H within the tank and the limb which carries the cup K is weighted as at P so that in the normal posi-

tion of parts, the cup is at its lowest point and the opposite limb is raised by the same, whereby the valve is opened.

It will be seen that when the valve F is opened, water flows from the same through the pipe H and impacts itself upwardly against the top of the cup K, thus raising the latter and consequently the connected limb of the lever J.

The opposite limb is lowered, whereby the stem M is no longer controlled, when it also lowers and with it, the valve C, the latter then closing on its seat B, when the tank is permitted to fill.

Should occupation of the seat continue to any material extent, the water in the tank may overflow through the stem M and valve C and so escape into the bowl.

As soon as the seat is vacated, the stem G is released of downward pressure, when the supply of water to the tank ceases and as the cup is relieved of the impact of the inflowing water from below, said cup lowers, due to its weight, when the opposite limb rises, thus elevating the stem M and with it, the valve C, the latter then being opened, when the water discharges from the tank into the bowl and so effects the flushing of the same.

The valve C remains open, so that the tank will be effectively drained and freezing therein is prevented.

In Fig. 3, I show the exterior of the valve stem M as provided with the studs Q, in lieu of the bead L, the adjacent limb of the lever J having recesses R thereon to receive said studs without, however, producing different results.

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

1. In a flush tank, a discharge valve therefor, a lever pivoted within the tank near the bottom thereof and adapted to engage said valve, a supply pipe for said tank and weighted means on said lever adapted to receive the impact of the inflowing water from said pipe the weight being upon the upper face of the lever.

2. In a flush tank, a discharge valve therefor, a supply pipe for said tank, an inverted vessel over the discharge end of said pipe, a carrier for said vessel pivoted upon a fixed member within the tank near the bottom thereof, and a weight for operating the carrier, said carrier being adapted to directly en-

gage said valve to close the same by the impact of the inflowing water against said vessel.

3. In a flush tank, a discharge valve there-
5 for, a supply pipe for said tank entering the same, a movable vessel in the tank over the discharge end of said pipe, a weighted carrier for said vessel pivoted upon a fixed member supported near the bottom of the tank and
10 means for loosely connecting said carrier with means on said valve to exert an upward pressure thereon.

4. In a flush tank, a tubular discharge valve therefor, a lever pivoted upon a fixed
15 member supported within and near the bottom of said tank one limb of which is adapted to engage directly with means on said valve, and an inverted receptacle on the other limb of said lever located over the discharge end
20 of said pipe, said lever being mounted within the tank near its bottom and weighted so as to overbalance the weight of said valve.

5. In a flush tank, a tubular discharge valve therefor, a supply pipe leading into said
25 tank, an arm supported on said supply pipe within said tank, a lever mounted on said

arm, an inverted vessel on one limb of said lever over the discharge end of said pipe and means on the other limb for engagement
30 with said valve.

6. In a flushing apparatus, the combination of a flush tank, a supply pipe leading thereto, a flush pipe leading therefrom, a bowl with which said flush pipe is connected, a movable seat on said bowl, a valve in said
35 supply pipe adapted to be controlled by said seat, a valve in the tank for said flush pipe, a lever in said tank pivoted upon a fixed member supported within the tank near the bottom thereof, an inverted vessel on one limb
40 of said lever over the discharge end of said supply pipe to close the valve by the inflowing force of the water when the seat is operated, the other limb of said lever being
45 adapted to directly engage with means on said valve, and means directly on said lever for weighing one limb greater than that of said valve to open the latter.

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Witnesses:

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