(No Model.)

W. R. BAKER.

WATER CLOSET FLUSHING DEVICE.

No. 540,346. Patented June 4, 1895.

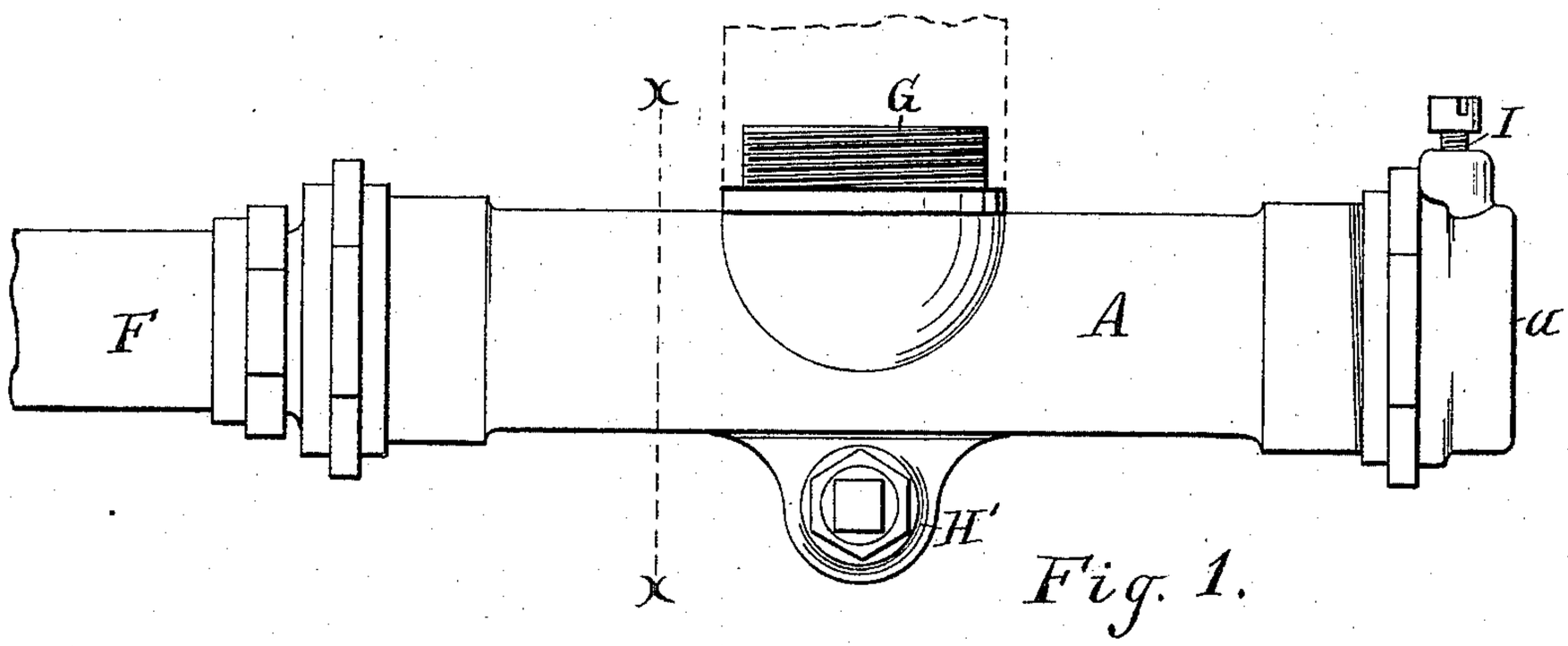

Fig. 1.

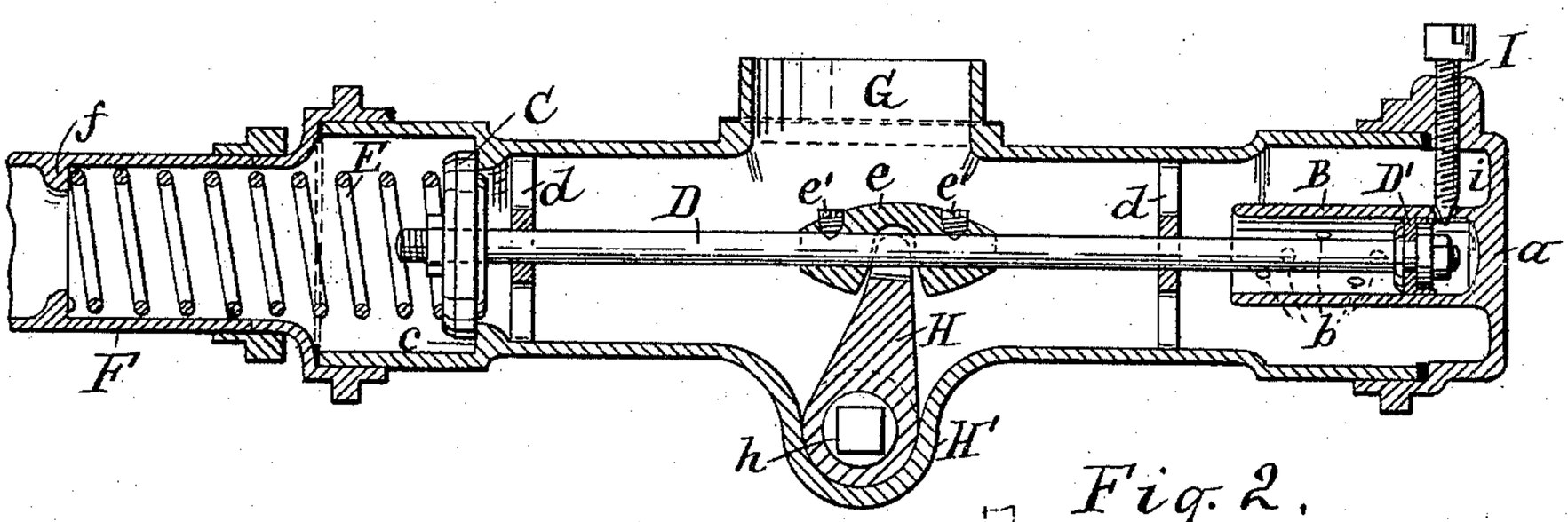

Fig. 2.

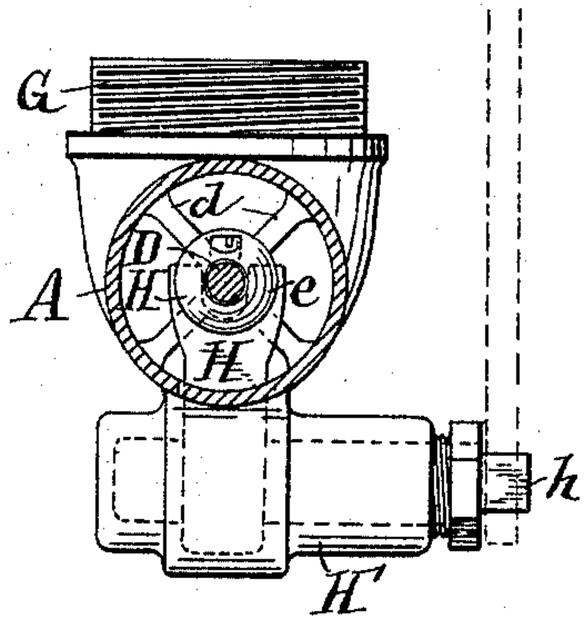

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

WILLIAM R. BAKER, OF WATERTOWN, NEW YORK.

WATER-CLOSET FLUSHING DEVICE.

SPECIFICATION forming part of Letters Patent No. 540,346, dated June 4, 1895.

Application filed June 22, 1894. Serial No. 515,324. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM R. BAKER, of Watertown, in the county of Jefferson, in the State of New York, have invented new and useful Improvements in Water-Closet Flushing Devices, of which the following, taken in connection with the accompanying drawings, is a full, clear, and exact description.

My invention relates to flushing devices for water-closets or sinks, and has for its object to dispense with the tank or service-box and at the same time furnish the after-wash; and the further object is to provide means for determining the length of time for the water to flow, or the quantity thereof during each operation of the device.

To this end my invention consists in the combination of a pipe or chamber closed at one end and connected at the other end with a supply pipe, an outlet pipe communicating with one side of the first mentioned pipe, a dash-pot formed stationary within the latter pipe at the closed end, a rod with a piston thereon entering the dash-pot, a valve on the rod to open and close the supply pipe, and means connected to the rod to move the same longitudinally in one direction against the action of a spring; and my invention consists in certain other combinations of parts hereinafter described and specifically set forth in the claims.

Referring to the drawings, Figure 1 is a side elevation of my improved flushing device. Fig. 2 is a vertical longitudinal sectional view of the same, with a side elevation of the piston-rod within the pipe; and Fig. 3 is a transverse section on line *x x* of Fig. 1, looking from left to right of the figure.

In the said drawings, A represents the pipe which is shown extending horizontally, having one end closed by a cap *a*, or other suitable and well known means. The cap is threaded on its inner side to engage the thread on the end of the pipe. On the inner side of this cap *a*, preferably integral with the same, as shown, is a dash-pot or tube, B, concentric with the pipe, A, but much smaller than the latter and projecting from the cap a short distance.

Extending centrally and longitudinally within the pipe, A, is a rod, D, which may be termed a piston-rod. Said rod is adapted to be reciprocated longitudinally and is supported by bearings, *d*, *d*, a distance apart. On the end of said rod entering the dash-pot is secured a piston, D′, which fits closely to the sides of the tube B. On the opposite end of said rod is secured a valve, C, formed preferably of a leather disk of less diameter than the interior of the pipe. When the piston-rod, D, is forced to the right as far as possible by the action of the coil-spring, E, bearing with one end upon the valve, C, or a washer, of the same size in contact with the valve, and with its other end upon a flange *f* within the supply pipe, F, the supply of water is cut off as the rim of the valve, C, is then in contact with a flange or seat, *c*, on the inside of the pipe. When the supply is thus cut off or when the piston rod is in this position, the piston is in close proximity to the cap *a* or to the bottom of the dash-pot B.

G is the outlet on the upper side of the pipe, A, and is connected by a pipe with the water closet or sink to be flushed. On the opposite side of the pipe, A, from the outlet, G, is formed a bearing, H′, for a rock-arm, H, which extends toward the rod, D, and being bifurcated lies on each side of the rod and in a recess in a block, *e*, secured to the rod by set screws, *e′*, *e′*.

By means of a spindle, *h*, extending through the said bearing and the rock-arm, the rod, D, may be moved to the left against the action of the spring to allow the water to flow around the valve, C, to and through the outlet G. The spindle has a square head and may be operated by a lever thereon, as indicated in dotted lines in Fig. 3 of the drawings, or other suitable means. After being moved to the left, the piston rod is released and allowed to return to its original closed position by the action of the spring, E, alone.

If the piston, D′, fits closely and is not provided with a valve or opening, the tube, B, forming the sides of the dash-pot is perforated by one or several holes, *b*, at different points along its length, so that the valve, C, will gradually return to its seat owing to the gradual flow of water from the dash-pot through said holes that entered the dash-pot when the piston was moved to the left. The flow is con-

trolled or regulated by a screw, I, which passes through the side of the pipe or cap *a* and enters a small hole, *i*, at or near the base of the dash-pot. By means of this screw the hole, *i*, may be closed more or less to delay the return of the valve, C, to its seat, *c*, as long as may be necessary in order to flush the closet or sink sufficiently. By the proper adjustment of this screw, I, the flow of water may be prolonged after the handle is released as long as desired.

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

1. The combination in a flushing device, of a pipe closed at one end and connected at the other end with a supply pipe, an outlet to one side of the first mentioned pipe, a dash-pot within and at the closed end of said pipe, a piston in the dash-pot, a rod connecting the piston with a valve, the seat for the valve, a spring to move the rod and valve toward its seat, perforations in the side walls of the dash-pot, at different points along its length and suitable means to move the rod against the action of the said spring, as set forth.

2. The combination in a flushing device, of a pipe closed at one end and connected at the other end with a supply pipe, an outlet to one side of the first mentioned pipe, a dash-pot within and at the closed end of said pipe, a piston in the dash-pot, a rod connecting the piston with a valve, the seat for the valve, a spring to move the rod and valve toward its seat, perforations in the side walls of the dash-pot at different points along its length, a screw passing through the pipe and adapted to close more or less the hole nearest the base of the dash-pot, and suitable means to move the rod together with the piston and valve against the action of the coil spring, as set forth.

In testimony whereof I have hereunto signed my name.

WILLIAM R. BAKER. [L. S.]

Witnesses:
JAMES B. WISE,
CHARLES M. WOULF.