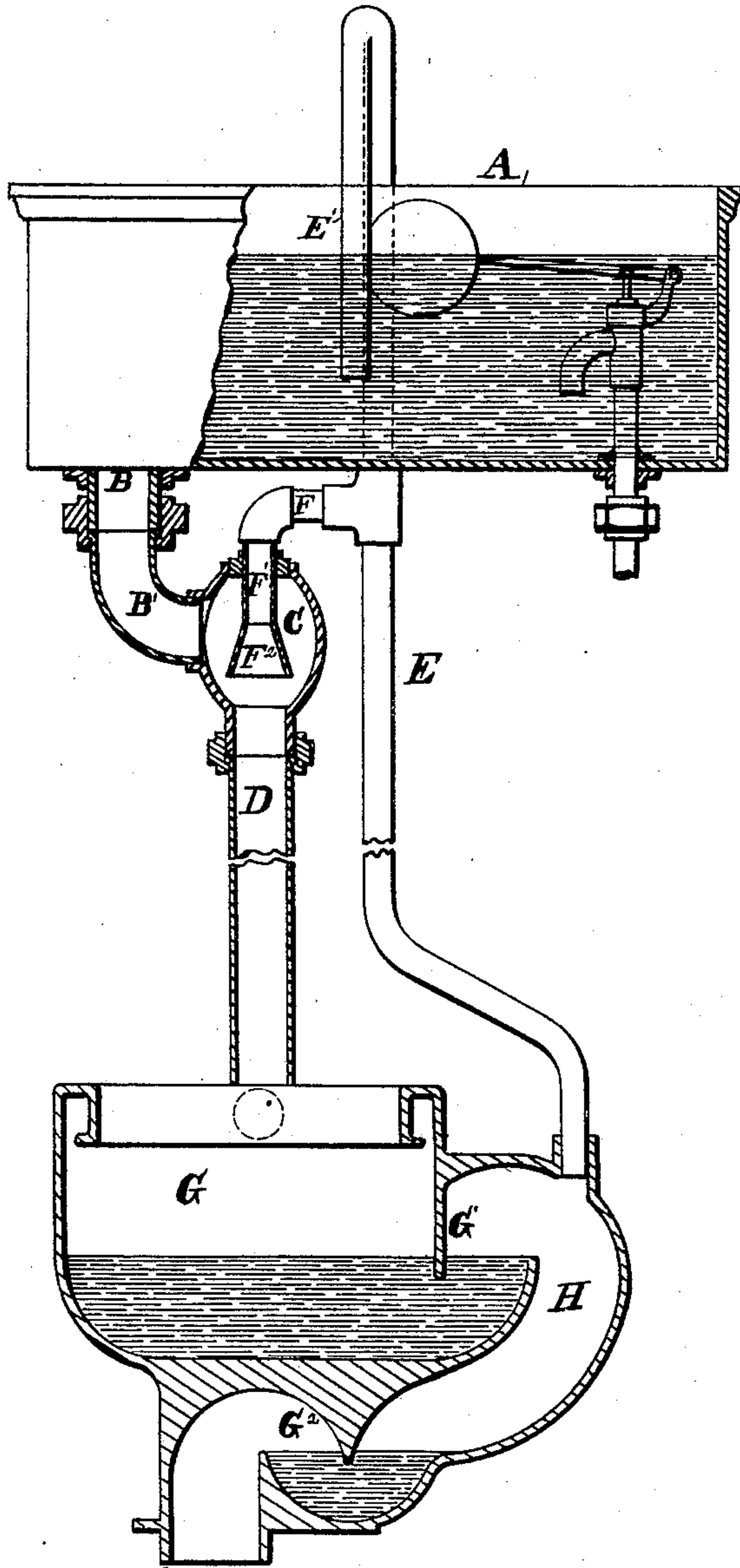


(No Model.)

A. F. BLESCH.
WATER CLOSET.

No. 411,087.

Patented Sept. 17, 1889.



WITNESSES

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AUGUST F. BLESCH, OF COLUMBUS, OHIO.

WATER-CLOSET.

SPECIFICATION forming part of Letters Patent No. 411,087, dated September 17, 1889.

Application filed February 26, 1889. Serial No. 301,263. (No model.)

To all whom it may concern:

Be it known that I, AUGUST F. BLESCH, of Columbus, in the county of Franklin and State of Ohio, have invented new and useful Improvements in Water-Closets, of which the following is a specification.

My invention is intended especially to be used in connection with that class of water-closet basins in which an intermediate air-chamber is placed between two water seals—one formed in the basin itself and another in the trap below the basin in the outflow-pipe—and it is designed to exhaust the air from the intermediate air-chamber in order to establish the action of the flushing-current into and through the basin.

In the annexed drawing, making a part of this specification, a tank and basin are shown in a vertical section, part of the tank being broken away.

The tank A and siphon B form no part of the novel features of this improvement—that is to say, they may be of any of the known forms in which provision is made for discharging the entire contents at one flushing.

An illustration of one form of tank is shown in Letters Patent to me, No. 354,379, issued December 14, 1886, and a modification in another application for improvements thereon filed at the same time herewith.

Only the lower end of the long leg of the siphon is shown in the drawing hereto attached.

The water is supplied to the tank in the usual manner through a ball-valve, which regulates the maximum level.

A is a tank.

B is a tube forming a part of the long leg of the siphon. As it is well known in the art and is shown in another application filed by me at the same time with this, it need not be more fully described. The long leg of the siphon is continued through the pipe B' and delivers the water into the chamber C at the upper end of the discharge-pipe D, which leads to the basin.

The basin to which this mechanism is applied is the one in common use known as the "siphon-closet," in which in its normal condition there is an intermediate air-chamber interposed between two water seals. From that

intermediate air-chamber leads a pipe E, which is carried up over the upper edge of the tank A and is then bent downward, terminating at the minimum water-line of the tank.

In order that the basin may act, it is necessary that the air between the two water seals should be withdrawn. This is done by means of the pipe E, which is connected by a branch pipe F, extending horizontally and formed with an elbow connected with a straight pipe F', which passes through into the interior of the chamber C and terminates in a bell-mouth F². This arrangement of the branch pipe is that shown in the drawing; but it may be otherwise arranged.

The action of this mechanism is as follows: When the siphonal action is established or the water otherwise caused to flow through the pipe B' by the use of any one of the devices known or used for the purpose, the water will flow into the chamber C, and, passing along the surface of the bell-mouth F², will cause the air in the latter to be drawn out of branch pipe F and air-pipe E and intermediate air-chamber of the basin, so as to permit the action of the flushing device, the water and air being drawn through pipe D with a velocity due to its length and discharged into the basin as the flushing agent. The pipe at E terminates a little above the minimum level of the water in the tank. This is done in order that the water shall continue to flow into the basin after the air-suction is stopped, so as to fill the basin with water. It is necessary to keep the suction in action until the basin is thoroughly flushed, and when the suction is cut off by the opening of the lower end of pipe E' the force of the discharge diminishes, although the water continues to flow to fill the basin.

Although I have spoken of the chamber H as an intermediate chamber and described it as being placed between two water seals—one in the basin and one below—and although I regard that as the best and safest arrangement, there are instances in which the basin is constructed without the lower trap, and I therefore desire to include within my claims basins which use a single seal and in which the chamber H is not for that reason an in-

intermediate chamber forming a part of the structure of the basin.

I am aware that air-pipes have been used which are bent into the form of a siphon, substantially as and for the same use as the bent air-pipe E E'. I do not, therefore, claim that pipe broadly nor in combination with the tank and basin and flushing-pipe. The combination in my apparatus differs from those which appear in former cases in this, that, instead of using a flushing-pipe opening directly out from the bottom of the tank and connected with the mouth of the air-pipe by a tube, I connect the air-pipe with the long leg of the siphon by a pipe F F', which extends from the air-pipe into the long leg of the siphon below the tank, and also that I terminate the air-pipe above the level of the lower end of the short leg of the siphon. By this means air is drawn into the pipe E', and thence admitted into the long leg of the siphon before the water in the tank has been exhausted to its minimum level. This combination and arrangement I believe to be new.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with a tank and basin having a chamber H, a chamber C in the long leg B of the flushing-siphon, a bent air-pipe E E', extending upward and then bent downward,

so as to connect chamber H and the water in the tank above the minimum level, and a connecting-pipe F F', extending laterally from E into the interior of chamber C and opening downward, substantially as set forth.

2. In combination with a tank and basin having a chamber H, a chamber C in the long leg B of the flushing-siphon, a bent air-pipe E E', extending upward and then bent downward, so as to connect chamber H and the water in the tank above the minimum level, and a connecting-pipe F F', extending laterally from E into the interior of chamber C and opening downward, terminating in a bell-mouth, substantially as set forth.

3. In combination with a tank and siphon and basin having a chamber H, a chamber C in the flushing water-passage, a pipe E E', terminating slightly above the level of the mouth of the short leg of the siphon, and a connecting-pipe F F', terminating in the downwardly-opening bell-mouth F² in the chamber C, substantially as set forth.

In testimony whereof I have hereunto set hand in the presence of two subscribing witnesses.

AUGUST F. BLESCH.

In presence of—

CHAS. E. MALKIN,
JNO. C. BUGH.