

(No Model.)

B. WILLIAMS.
AUTOMATICALLY ACTING FLUSH TANK.

No. 519,369.

Patented May 8, 1894.

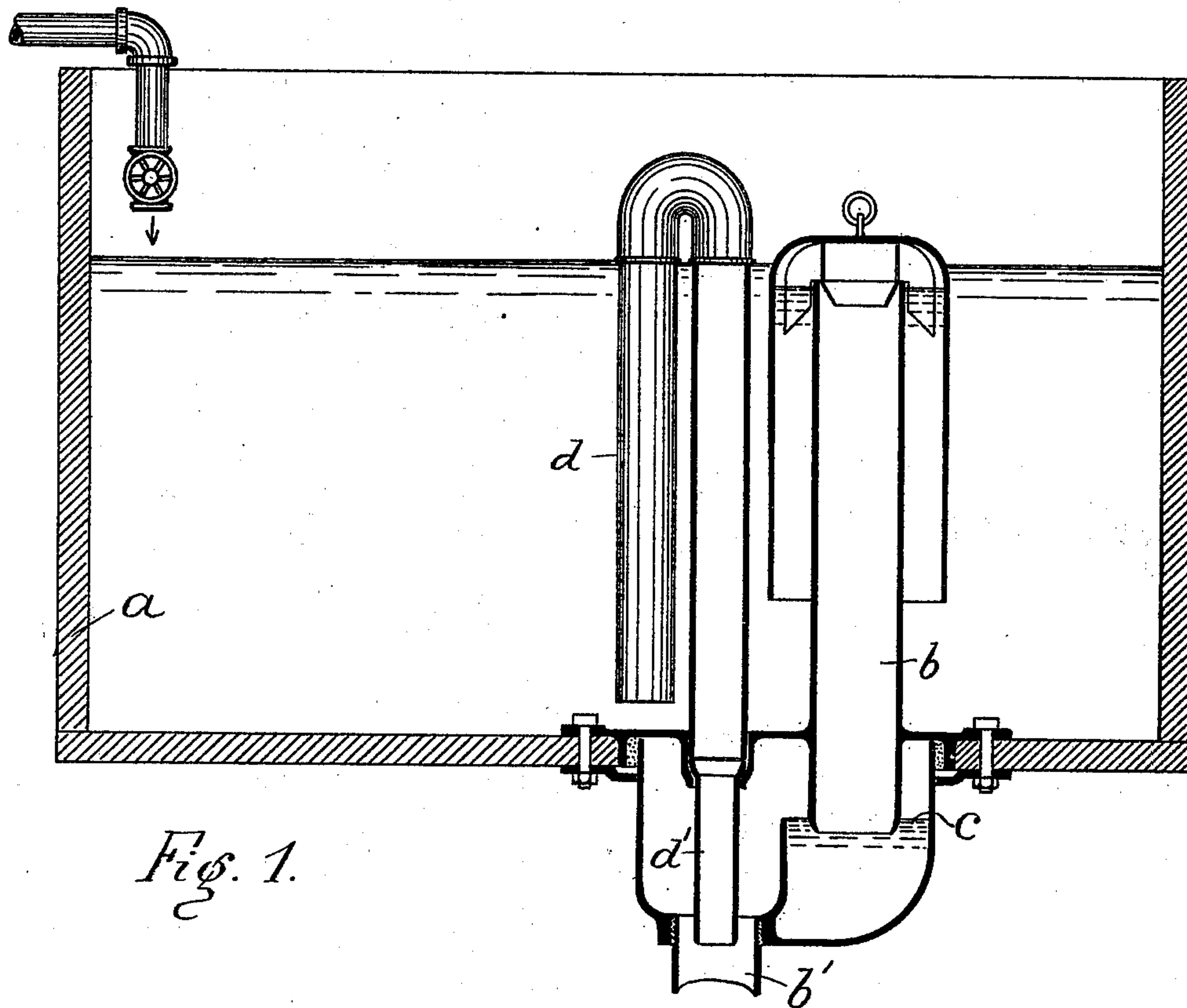
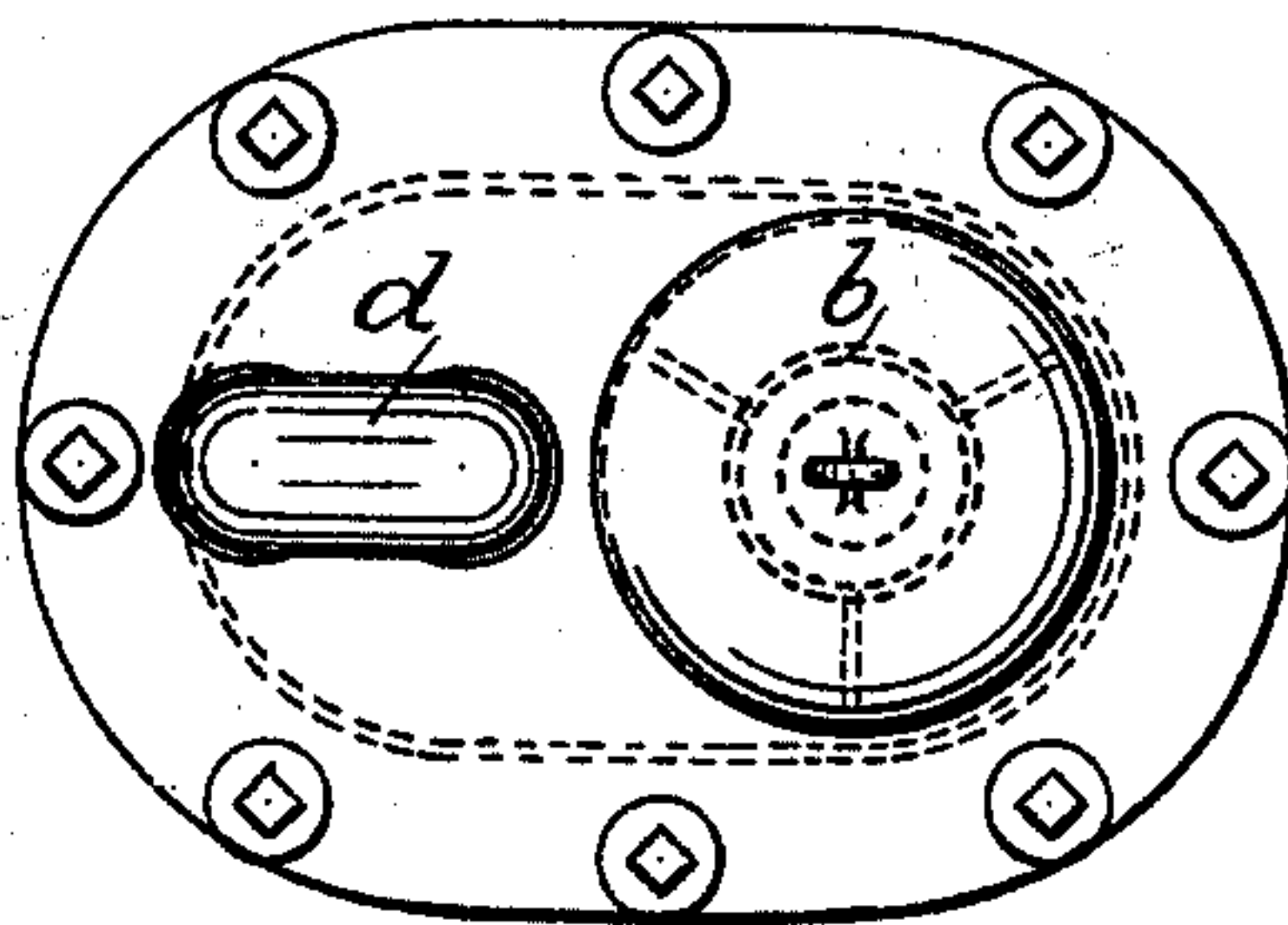


Fig. 1.

Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

BENEZETTE WILLIAMS, OF WESTERN SPRINGS, ILLINOIS.

AUTOMATICALLY-ACTING FLUSH-TANK.

SPECIFICATION forming part of Letters Patent No. 519,369, dated May 8, 1894.

Application filed September 4, 1893. Serial No. 484,727. (No model.)

To all whom it may concern:

Be it known that I, BENEZETTE WILLIAMS, a citizen of the United States, residing at Western Springs, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatically-Acting Flush-Tanks, which are fully set forth in the following specification, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 shows a longitudinal vertical section of the flush-box with parts of the siphon in section. Fig. 2 shows the siphon mechanism in plan view.

Like letters refer to like parts.

The object of my invention is to combine in one automatic device a flush of large volume and an after flush of small volume from a single flush-box or flush-tank provided with automatically acting major and minor siphons taking from said box superimposed volumes of water, and wherein, by the action of the major siphon, said minor siphon will be set into action and wherein the volume of water for each purpose can be regulated to suit the conditions in which the device is made to act. To attain said desirable ends I make a device substantially as follows, namely:

An automatically filling flush-box, or flush-tank, *a*, is provided with a trapped main, or primary siphon, *b*, which flows whenever the water in the box, *a*, rises sufficiently to overcome the head of the trap, *c*, and then discharges the water from the box down to the level of the intaking limb of said siphon which is placed higher than the mouth of the intaking limb of the minor siphon, as shown. The flow of this major siphon creates a vacuum in the minor siphon, *d*, whereof its discharging limb enters the discharging limb of said main siphon and thus causes its flow. The flow of said lesser siphon will cause the com-

plete breaking of the larger siphon, thus preventing the waste of large volumes of water, noise, and fitful action, and the lesser siphon will then discharge the desired volume of water from the end of the discharge of the major siphon, which forms the principal flush, until the water level falls below the mouth of its intaking limb. The discharging end of the siphon, *d*, is provided with a contracted end, *d'*, where it enters the discharging limb, *b'*, of the siphon, *b*, a feature whereby the flow of said secondary siphon is insured. When the end of said siphon is not contracted in some way, as shown, it is liable to be broken simultaneously with the breaking of the primary siphon.

By increasing or decreasing the difference in level between the openings of the intaking limbs of said siphons, and of their heights from the bottom of the box the volume of flush may be varied to suit every required condition relative to the whole quantity of flush of each siphon and also as to the relative quantity of flush of each siphon.

What I claim is—

1. The combination with an automatically filling flush-tank provided with a trapped primary siphon and an eduction pipe at the side of said trap, of a secondary siphon with discharging end entering the mouth of said eduction pipe, substantially as specified.

2. The combination with an automatically filling flush tank provided with a trapped primary siphon and an eduction pipe at the side of the trap, of a secondary siphon with contracted discharging end entering the mouth of said eduction pipe, substantially as specified.

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Witnesses:

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