No. 659,255. Patented Oct. 9, 1900.

R. PAULS.

FLUSHING DEVICE FOR WATER CLOSETS.

(Application filed Mar. 23, 1900.)

(No Model.)

Fig. 1.

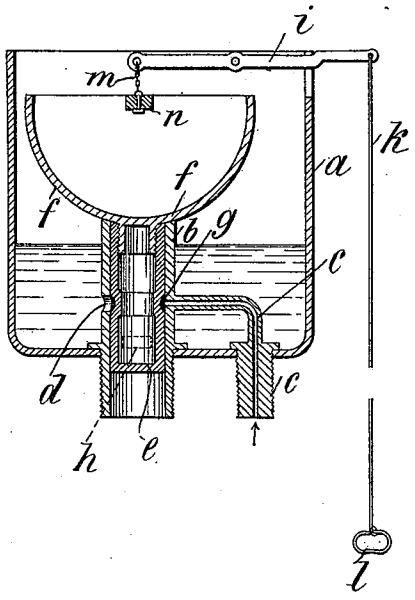


Fig. 2.

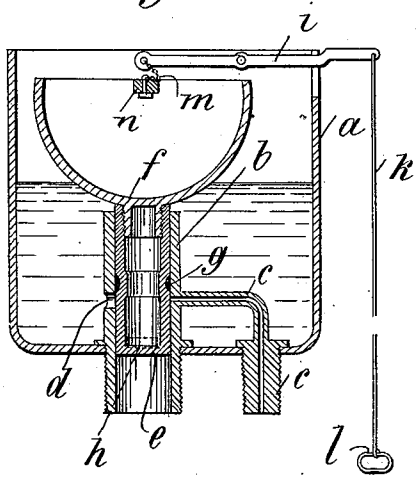
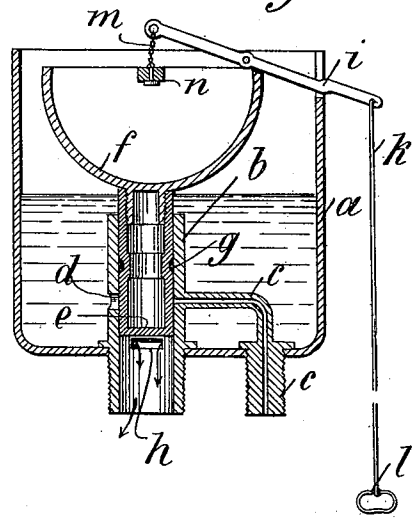


Fig. 3.



Witnesses:

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ROBERT PAULS, OF ALTONA, GERMANY.

FLUSHING DEVICE FOR WATER-CLOSETS.

SPECIFICATION forming part of Letters Patent No. 659,255, dated October 9, 1900.

Application filed March 23, 1900. Serial No. 9,974. (No model.)

To all whom it may concern:

Be it known that I, ROBERT PAULS, engineer, a subject of the German Emperor, residing at No. 36 Finkenstrasse, Altona, Germany, have invented new and useful Improvements in Flushing Devices for Water-Closets, of which the following is a specification.

The present invention relates to an improvement in water-closets with automatic regulation of the water-supply.

The invention consists in the novel combination, arrangement, and adaptation of parts, as will be more fully described hereinafter, and set out in the appended claim.

In the accompanying drawings an apparatus constructed according to the present invention is shown in a vertical section, and more particularly—

Figure 1 shows the device in position for supplying water to the cistern. Fig. 2 shows the device with the water at its maximum height and with the supply cut off, and Fig. 3 shows the device in position for discharging water from the tank.

The receptacle *a* has a tube *b* branching off, the extremity outside the receptacle of which is coupled to the pipe for flushing the water-closet. Above the bottom of the receptacle *a* the water-supply pipe *c* terminates in the pipe *b*, the water-supply pipe *c* being in connection with the main. Opposite to the water-supply pipe *c* an opening *d* is provided in the body of the pipe *b*. Inside the pipe *b*, tightly fitting, a piston-tube *e* is movably located, to the upper end of which the bell-shaped float *f* is screwed or secured in any suitable and desired manner. In the top surface of the piston-tube *e* an annular groove *g* is provided, and more particularly at such an elevation that it communicates with the opening *d* and the water-supply pipe *c* when the float *f* rests on the upper edge of the pipe *b*. The body of the tube *b* is provided with one or more exit-openings *h*, slightly above the bottom of the receptacle *a*. At the upper edge of the receptacle *a* a lever *i* is supported, which projects with one end from said receptacle and which is in connection with a pulling-cord *k* and handle *l*. The other end of the lever *i* is connected to the float *f* by means of a chain *m*, said chain being suitably secured to a cross-bar *n*, supported in the upper edge of the float.

The device operates in the following manner: When the float *f* assumes the position illustrated in Fig. 1, which is the inoperative position of same, the annular groove *g* in the piston-tube *e* communicates with the opening *d* in the pipe *b* and with the water-supply pipe *c*. The water can now enter through said annular groove and through the opening *d* into the receptacle *a*. As soon as the water-surface reaches the float *f* the latter is lifted with the rising surface of the water. The lifting of the float raises the piston-tube *e*, so that the water-supply will be cut off as soon as the annular groove *g* is situated above the opening *d*. The water-supply then ceases. In Fig. 2 the various organs are illustrated in this position. The piston-tube *e* covers the exit-openings *h*. For flushing the water-closet the lever *i* is pulled downward by means of the handle *l* and cord *k*. This action causes the float *f*, and with it the piston-tube *e*, to be lifted far enough to uncover the exit-openings *h*, (see position illustrated in Fig. 3,) so that the water contained in the receptacle can enter the interior of the piston-tube *e* and the flushing-pipe. On releasing the lever *i* the float and its appended organs return to their former position, which is illustrated in Fig. 1.

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

A flushing device for water-closets with automatic regulation of the water-supply, comprising in combination a tank, a flushing-pipe having water admission and exit openings, a bell-shaped float normally resting on the upper end of the aforesaid flushing-pipe, a piston-tube in connection with the float adapted to move in the flushing-pipe, an annular groove in said piston-tube adapted to admit water to the tank, a water-supply pipe terminating in the flushing-pipe in the interior of the tank and a lever in connection with a pulling-cord for actuating the flushing device, substantially as described and shown and for the purpose set forth.

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

ROBERT PAULS.

Witnesses:

JULIUS MAX BEYER,

ALBIN DIETZEL.