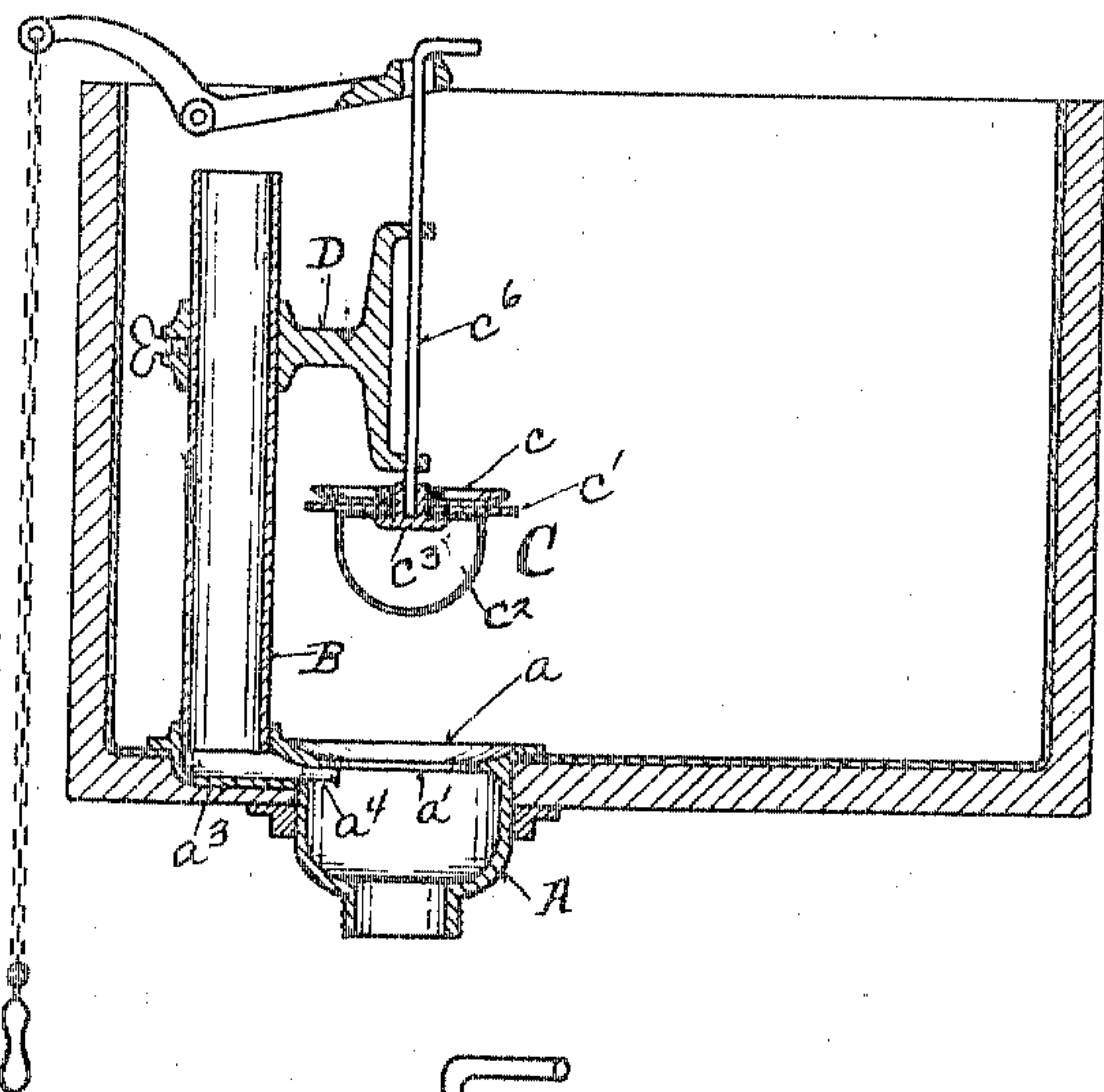


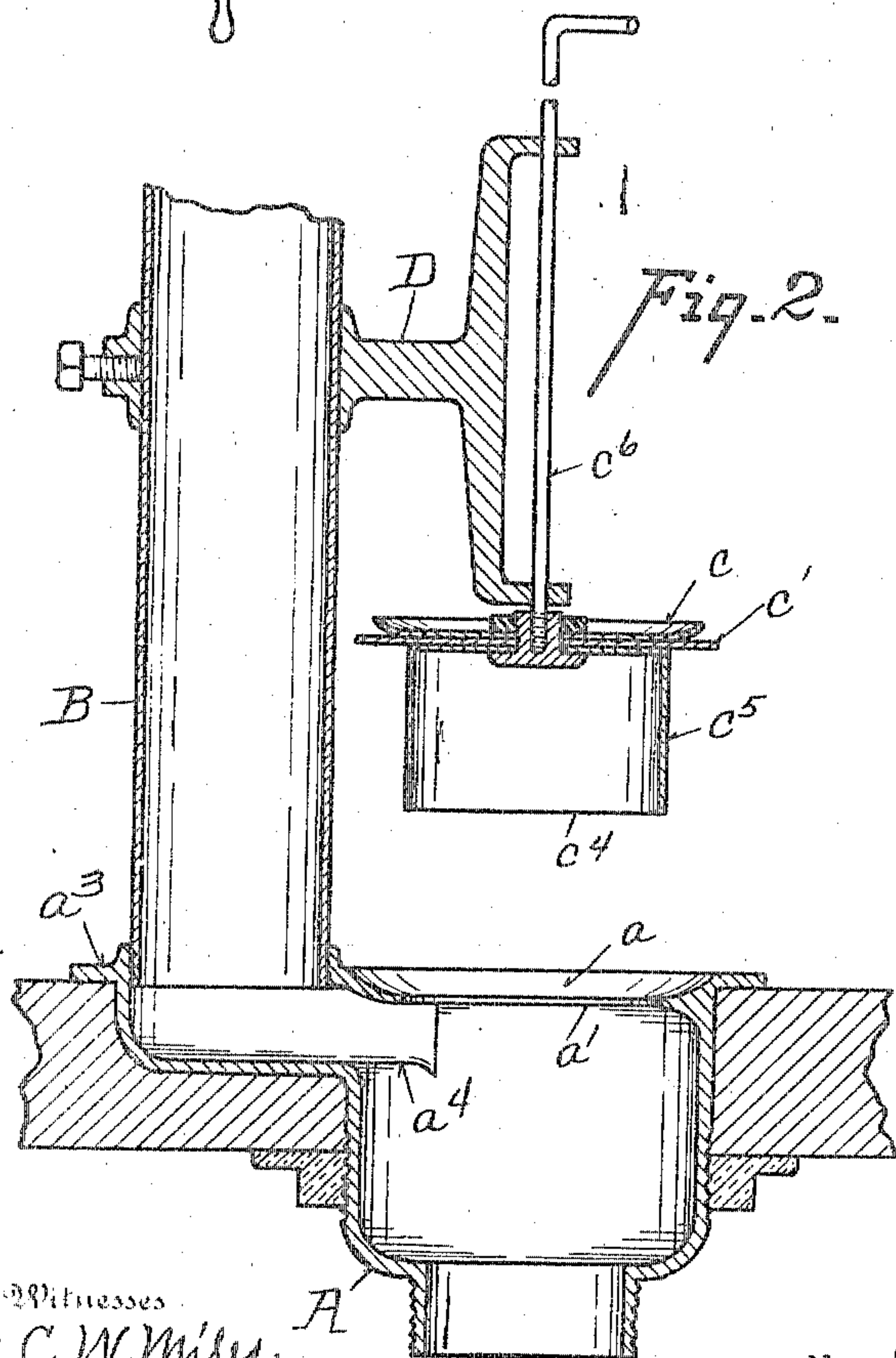
No. 811,988.

PATENTED FEB. 6, 1906.

C. F. WINTER.  
FLUSHING VALVE.  
APPLICATION FILED JUNE 30, 1905.



*Fig. 1.*



*Fig. 2.*

Witnesses  
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# UNITED STATES PATENT OFFICE.

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## FLUSHING-VALVE.

No. 811,988.

Specification of Letters Patent.

Patented Feb. 6, 1906.

Application filed June 30, 1905. Serial No. 267,852.

*To all whom it may concern:*

Be it known that I, CHARLES F. WINTER, a citizen of the United States of America, and a resident of Hamilton, county of Butler, State of Ohio, have invented certain new and useful Improvements in Flushing-Valves, of which the following is a specification.

My invention relates to a flushing-valve for use in the flushing-tanks of water-closets which when seated is protected from the action of the water and in the use of which the buoyant member is less subject to the wear of contacting the valve-seat than those now in use.

Figure 1 is a vertical sectional view through the valve embodying my invention. Fig. 2 is a detail view of a modified form of the same.

The valve-seat *a* is formed by an annular flange *a'*, which is formed upon the interior of the upper end of a metallic cup *A*, which is to be secured in the bottom of the flushing-tank and has an annular exteriorly-screw-threaded extension upon its bottom to receive the flushing-pipe. The cup *A* has likewise upon its side a socket *a<sup>3</sup>*, whose opening *a<sup>4</sup>* occurs below the valve-seat *a*. Socket *a<sup>3</sup>* is interiorly screw-threaded to receive an overflow-pipe *B*.

The valve *C* consists of a circular metallic disk *c*, curved upward at its edges, a leather or rubber circular washer *c'*, and a metallic ball *c<sup>2</sup>*, secured upon a nut *c<sup>3</sup>*, into the socket of which the valve-stem *c<sup>6</sup>* fits. The metallic disk *c* is made of the contour of the valve-seat *a*, and the diameter of the ball *c<sup>2</sup>* is made the same as the diameter of the flange *a'*, so that when the valve seats the ball *c<sup>2</sup>* passes by the flange *a'* into the cup *A*. In the modified form shown in Fig. 2 in place of making the buoyant member of the valve of a ball, as shown in Fig. 1, it is made of a circular rim, which is left open upon its bottom *c<sup>4</sup>*, forming an inverted cup *c<sup>5</sup>*. The valve-stem *c<sup>6</sup>* reciprocates in a bracket *D*, which is secured to the overflow-pipe *B* and may be raised by any of the methods now in use—as, for instance, by the ordinary lever—when it is desired to flush the bowl. In use when raised from its seat the buoyant member *c<sup>2</sup>* of Fig. 1 holds the valve *c* from its seat until all the

water in the tank has been discharged, after which the weight of the valve will cause the ball *c<sup>2</sup>* to pass into the cup *A* and the disk *c* to press the washer *c'* firmly to the seat *a*. It is seen that in this position the metallic ball *c<sup>2</sup>* is not in contact with the water of the tank, so that it is not worn by the action of the water and of the sediment.

In the modification shown in Fig. 2 when the valve is raised from its seat the air held in the inverted cup will buoy up the valve until the water in the tank has been discharged. In this modification likewise the cup is not subject to the action of the water in the tank when the valve is seated. It is seen likewise in both modifications that the wear upon the buoyant member by reason of contacting with the valve-seat is reduced to a minimum and likewise that there is no tendency to distort the shape of the buoyant member by reason of its being brought to the seat.

What I claim is—

1. In a flushing-valve the combination of a valve-seat consisting of a flange surrounding an opening, a valve consisting of a disk to contact the valve-seat and a buoyant member situated below the disk and being of a diameter such as to pass through said opening.

2. In a flushing-valve the combination of a cup adapted to be seated in the bottom of a flushing-tank having an internal annular flange near its top forming a valve-seat, a means for coupling the flushing-pipe to its bottom and a valve consisting of a disk to seat against the flange, and a buoyant member located beneath the disk and of a size such as to pass through the flange into the cup.

3. In a flushing-valve the combination of a casting in the shape of a cup to be seated in the bottom of a flushing-tank and having near its top an interior annular flange together with a valve consisting of a metallic disk to seat against the valve-seat and a ball below the disk of a diameter which is to pass through the annular flange into the cup.

CHARLES F. WINTER

Witnesses:

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