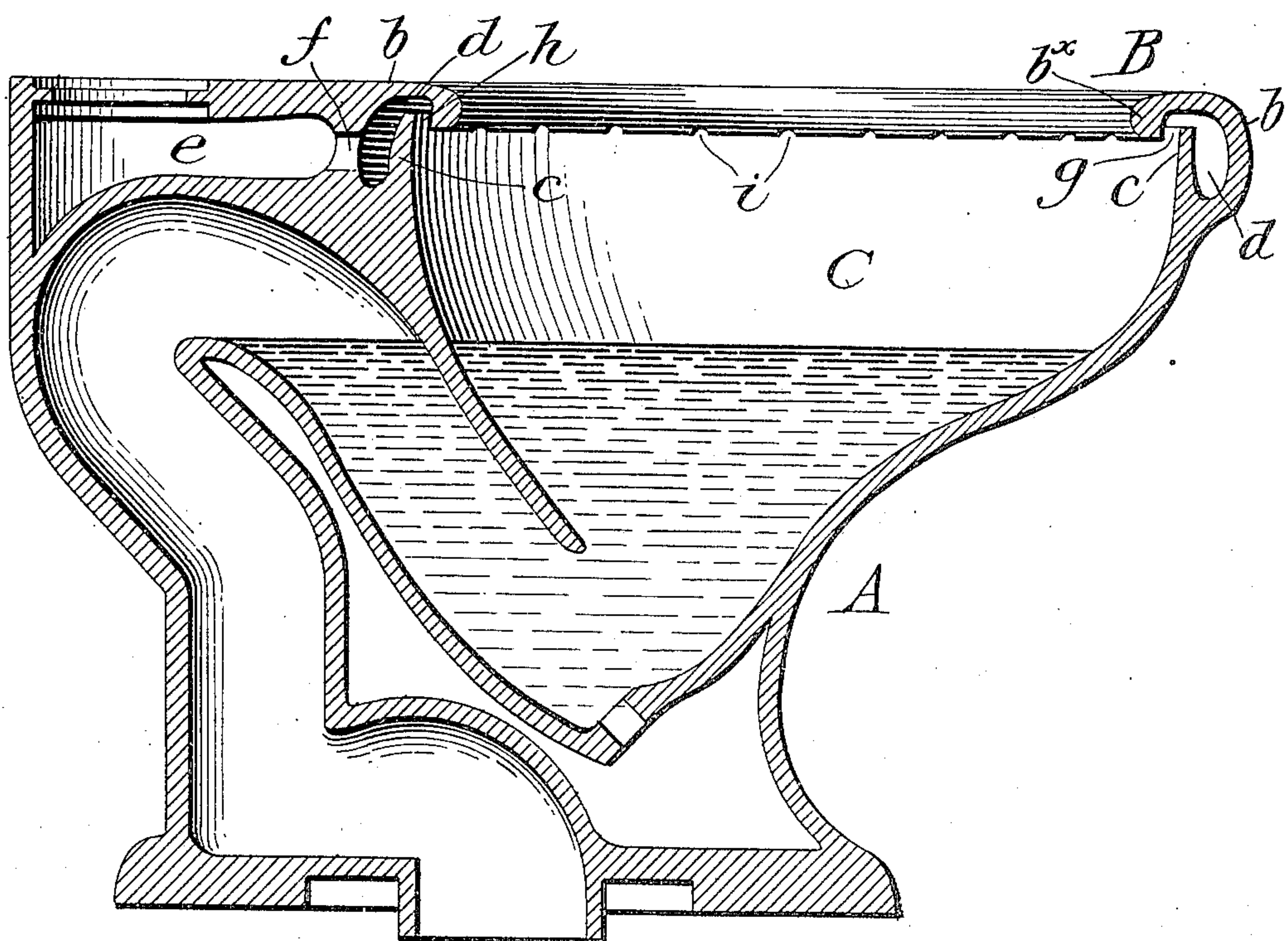


J. F. KELLY.
 WATER CLOSET BOWL.
 APPLICATION FILED JULY 21, 1909.

952,531.

Patented Mar. 22, 1910.



Witnesses.

A. W. Edelin

J. B. Rockwell

Inventor:

John F. Kelly
 James Goldsborough Hill
 Attys.

UNITED STATES PATENT OFFICE.

JOHN F. KELLY, OF TRENTON, NEW JERSEY, ASSIGNOR TO THOMAS MADDOCK'S SONS CO., OF TRENTON, NEW JERSEY, A CORPORATION OF NEW JERSEY.

WATER-CLOSET BOWL.

952,531.

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To all whom it may concern:

Be it known that I, JOHN F. KELLY, a citizen of the United States, residing at Trenton, county of Mercer, and State of New Jersey, have invented certain new and useful Improvements in Water-Closet Bowls; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to water closet bowls and has as its object to furnish an improved flushing rim that prevents the bowl from being soiled to an appreciable extent during the ordinary use of the closet, and which causes the bowl to be thoroughly and efficiently flushed.

The ordinary closet bowls at present in use have flushing rims in which the inner side walls of the water channel define the top opening of the bowl and are of considerable height, so that they present a comparatively large surface to be soiled. According to this invention, I employ an inwardly directed overhanging ledge or wall that overlaps the inner side wall of the channel in the rim and defines the top opening of the bowl, said ledge or wall having an inner edge of inconsiderable thickness so that the soiling surface is reduced to a minimum; and said wall or rim is so arranged in relation to the water passage or channel in the rim as to produce an especially efficient flushing jet. The water passage or channel in the rim is formed of two walls, the inner of which is integral with and an upward continuation of the wall of the bowl. The outer wall of said channel extends above the inner wall thereof and inwardly, so as to overlap the inner wall and form the overhanging ledge referred to, said ledge defining the top opening of the bowl and being of inconsiderable height at its inner laterally directed edge. The lower surface of said inner edge is very slightly below the top edge of the inner rim wall, and between said edge and the inner wall there are arranged a number of passages for guiding the flushing water in downward direction after the water has passed over the upper edge of the inner wall of the channel, as will appear more clearly hereinafter.

The accompanying drawing illustrates in

vertical section a water closet bowl construction in accordance with the invention.

The water closet A shown in the drawing is of the usual well known type, but it is to be understood that the invention consists in the construction of the flushing rim B, and that the other features of the closet may be widely varied without affecting the gist of the invention.

The bowl proper C is formed of a continuous wall, and the flushing rim is provided with an inner wall *c* that is integral with and an upward continuation of the wall of the bowl. The outer wall *b* of the flushing rim is so located with reference to the inner wall as to create a relatively narrow water channel or passage *d* that extends throughout the rim and communicates at the rear of the bowl with a supply passage *e* by means of a short duct *f*. The wall *c* serves as a side wall for the water passage *d*, and the outer wall *b* is continued above the inner wall *c* and extended horizontally and inwardly in order to overlap or overhang the same, a space being left between the top edge of the wall *c* and the horizontal portion of the wall *b* in order to permit the flushing water to flow over the top edge of the wall *c* and down along the inner surface of the bowl. The overhanging laterally directed edge *b*^x of the outer wall *b* is curved at its inner surface so that the top opening of the bowl is defined by an extremely narrow surface; and although the edge *b*^x lies almost wholly above the top of the inner wall *c*, the lower surface of said edge is very slightly below the top of said wall, so as to guide downward the water which overflows the latter. The outer wall is spaced from the inner wall preferably at the front and rear of the bowl as indicated at *g* and *h* respectively, in order to provide for relatively wide jets at those points but the inner and outer walls are preferably joined at the sides of the bowl and perforated at their line of junction, as indicated at *i*, in order to provide for smaller jets at the sides of the bowl.

It will be noted that the edge *b*^x overhangs the wall of the bowl to such an extent that a vertical line passing through said edge will intersect the bowl wall only at the lower part of the latter, where it is substantially at or below the water line. In this

way the soiling of the walls of the bowl is prevented, as will be understood. It will also be apparent that as the edge b^* is relatively narrow in vertical direction the surface of the rim subjected to soiling is reduced to a minimum, and the location of said edge at the top of the bowl and therefore directly beneath the seat, said edge lying almost wholly above the rim wall c , is also of importance in bringing about this result. The location of the overhanging edge as herein described therefore practically does away with the soiling of the bowl and at the same time it provides for a peculiarly effective flushing of the latter, owing to the guiding of the water in downward direction from the upper extremity of the inner wall of the rim after the water flows over said wall.

Without limiting myself to the precise construction shown, I claim:—

1. In a water closet bowl, a flushing rim embodying an inner wall forming an upward continuation of the wall of the bowl, and an outer wall extending inwardly and horizontally at a point above the inner wall, said outer wall being provided with an inner extremity overhanging the inner rim wall and lying substantially above the same.

2. A water closet bowl having an inner rim wall forming an upward continuation of the bowl wall, and an outer rim wall defining between it and the inner wall a water passage or channel extending around the bowl, said outer wall being continued above the first named wall and extending inwardly to overhang the inner wall the inner overhanging edge of said outer wall being laterally directed to define the top opening of the bowl, and located almost wholly above the inner rim wall.

3. In a water closet bowl, a flushing rim embodying an inner wall, and an outer wall extending laterally and horizontally at a point above the top edge of the inner wall, and provided with an inner laterally directed edge overhanging said inner wall and defining the top opening of the bowl, said edge being almost wholly above the inner wall and being curved at its inner surface to reduce the width of the surface defining the bowl opening, as described.

In testimony whereof I affix my signature, in presence of two witnesses.

JOHN F. KELLY.

Witnesses:

A. M. MADDOCK, Jr.,
R. ROBBINS ANDERSON.