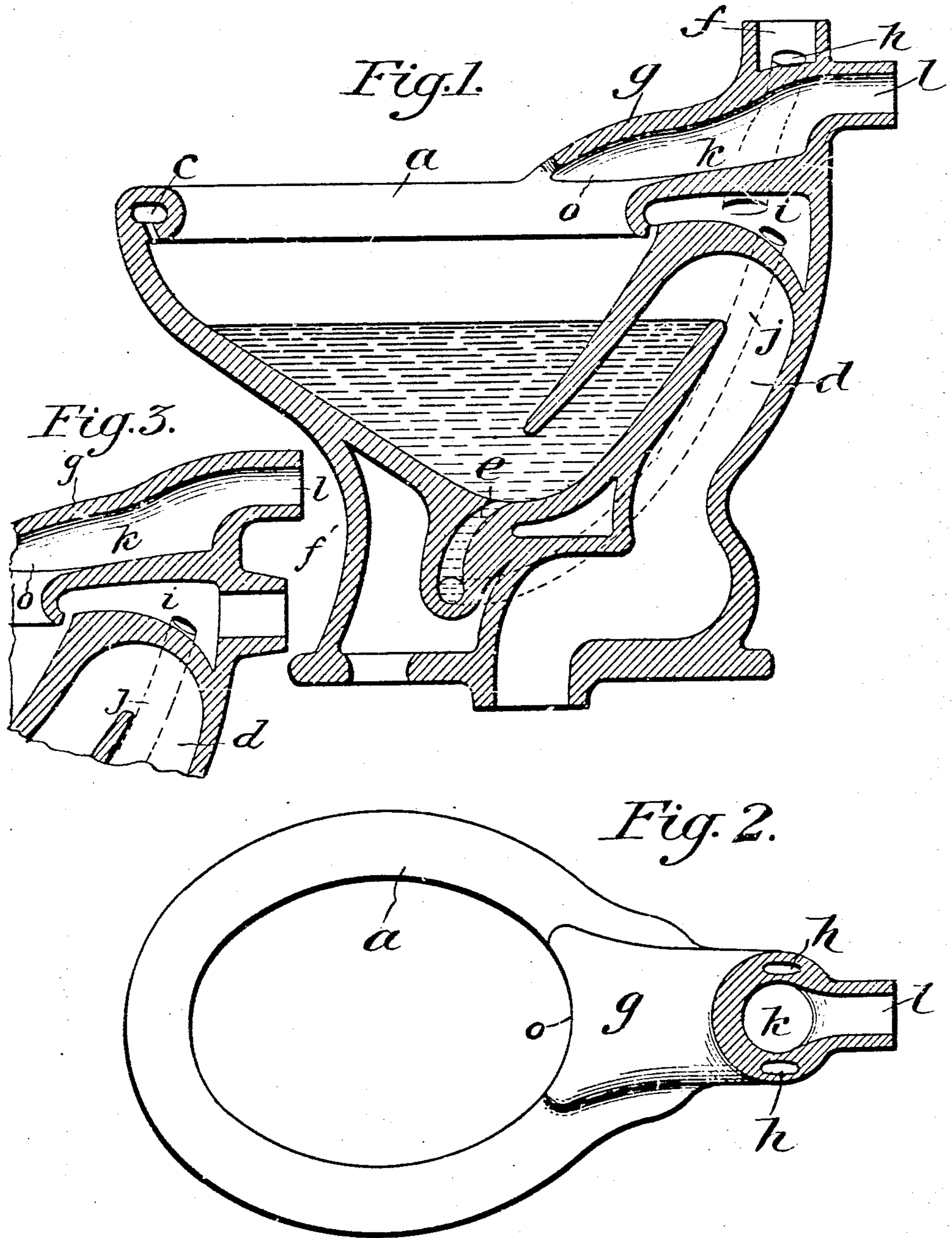


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 VENTED WATER CLOSET BOWL.
 APPLICATION FILED JULY 31, 1908.

963,297.

Patented July 5, 1910.



Witnesses:
 N. M. Down.
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 by Hiram H. Hildreth & Co. 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.

VENTED WATER-CLOSET BOWL.

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Specification of Letters Patent.

Patented July 5, 1910.

Application filed July 31, 1908. Serial No. 446,239.

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, State of New Jersey, have invented certain new and useful Improvements in Vented 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.

My invention relates to vented water closets and has for its object to provide a venting duct for closet bowls in which the inlet of said duct is located above the rim of the bowl, so that in case the bowl becomes clogged the contents will flow over the edge of the bowl and none of the overflow will enter the duct, and furthermore that by locating the inlet of said ventilating duct so as to overlie the rim of the bowl and in proximity to the rear thereof, the position of said duct is that best calculated to cause said duct to receive and carry off all gases that may accumulate in the bowl and to maintain a constant draft across the top of the bowl, and thus keep the bowl free from offensive odors and noxious gases.

In the types of vented closets as heretofore employed, the inlet or inlets of the venting ducts usually open into the interior of the bowl below the rim and but a relatively short distance above the normal level of the water in the bowl, so that any appreciable rise of the water will cover said inlet and stop the venting action, floating matter will tend to clog the duct, and little of the gas in the bowl above the inlet of the duct will find its way thereto, the gas tending to escape directly into the room or to be trapped in the flushing rim so as to escape into the room during the succeeding flushing operation.

The present invention is designed to obviate all of the objections inherent in the old forms of vented water closets and because of the particular location and arrangement of the inlet of the venting duct, all the gases within the bowl rise directly to the vent and pass off through the stack; furthermore by no possible chance can any foreign matter enter and clog the vent should the water rise in the bowl, because the inlet of the vent is located above the rim of the bowl.

In the accompanying drawings, Figure 1 is a vertical section through a water closet bowl involving the invention, Fig. 2 is a plan view with the ventilating duct shown partly in section, Fig. 3 is a fragmentary section showing an alternative arrangement of water inlet.

Referring to the drawings, *a* indicates the closet bowl which in the example illustrated is of the siphon jet type involving a flushing rim *c*, a siphon discharge *d*, a jet duct *e*, which communicates by way of passage *j* with a water supply chamber *i* at the top and rear of the bowl, which chamber *i* also communicates with the rim *c*, as will be understood. Formed on the upper surface of the bowl above the supply chamber *i* and the discharge siphon is a hollow generally arch-shaped projection *g* forming with the top wall of the closet an unobstructed chamber *h* which has an inlet *o* overlying the rim of the bowl at the rear of the said rim *c*, and an outlet *l* formed as a horizontal neck adapted to be connected with a vent or stack. The top wall of the extension *g* extends completely to the top opening of the bowl, as shown, and the inlet opening or mouth of said extension extends substantially parallel with the rim of the bowl. It will be particularly noted that there is thus produced a ventilating duct which opens into the closet bowl *a* above the rim *c* so that should the bowl overflow, the overflowing matter cannot enter said ventilating duct or any part thereof; also that the opening *o* forming the inlet for said ventilating duct is relatively large and extends for a considerable distance around and above the rear portion of rim *c*, thereby forming with the arched top wall *g* of the duct a species of hood or cowl to catch the gases arising from the bowl.

The water supply duct is conveniently formed integrally with the ventilating duct and, as indicated in Fig. 1, comprises a coupling nipple or horn *f* mounted on top of the wall *g* of the ventilating duct and connected with chamber *i* by one or more passages *h* formed within the body of the arch-like wall *g*.

Instead of disposing the water inlet on the top of vent duct *h*, as indicated in Fig. 1, the said inlet may be located below said duct and formed as a horizontal rearwardly extending horn *f'*, see Fig. 3, so that the

connection from the water supply pipe and the connection from the vent duct $\frac{1}{2}$ to the stack may be made directly from the bowl to the adjacent wall by short horizontal pipe sections.

Although the invention has been described as applied to a particular type of closet bowl, to wit, a siphon jet closet, yet it is to be understood that it is in no sense limited to closets of any special type, but may be applied to all closets in which a ventilating duct is found necessary or desirable.

What I claim is:—

1. A water closet bowl having an integral ventilating duct located wholly above the top of the bowl, the inlet mouth at the end of said duct being located above the rim of the bowl and substantially parallel therewith.

2. A water closet bowl having a ventilating duct comprising a hollow integral extension mounted on the upper surface at the

rear of the bowl and having a top wall extending completely to the top opening of the bowl, the inlet opening of said extension overlying the rim of the bowl and being substantially parallel therewith.

3. A water closet bowl having a flushing rim, a ventilating duct comprising a hollow integral extension mounted on the upper surface of the bowl at the rear thereof provided with a downwardly directed inlet opening above the rim of the bowl and substantially parallel therewith, a horizontal outlet neck, and a water supply duct formed in the wall of said extension at the side of said outlet neck.

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

JOHN F. KELLY.

Witnesses:

WALTER W. ANDERSON,
NEWLIN W. WISNER.