J. LANGE, JR.

TOILET.

APPLICATION FILED APR. 26, 1915.

1,213,113. Patented Jan. 16, 1917.

Fig. 1.

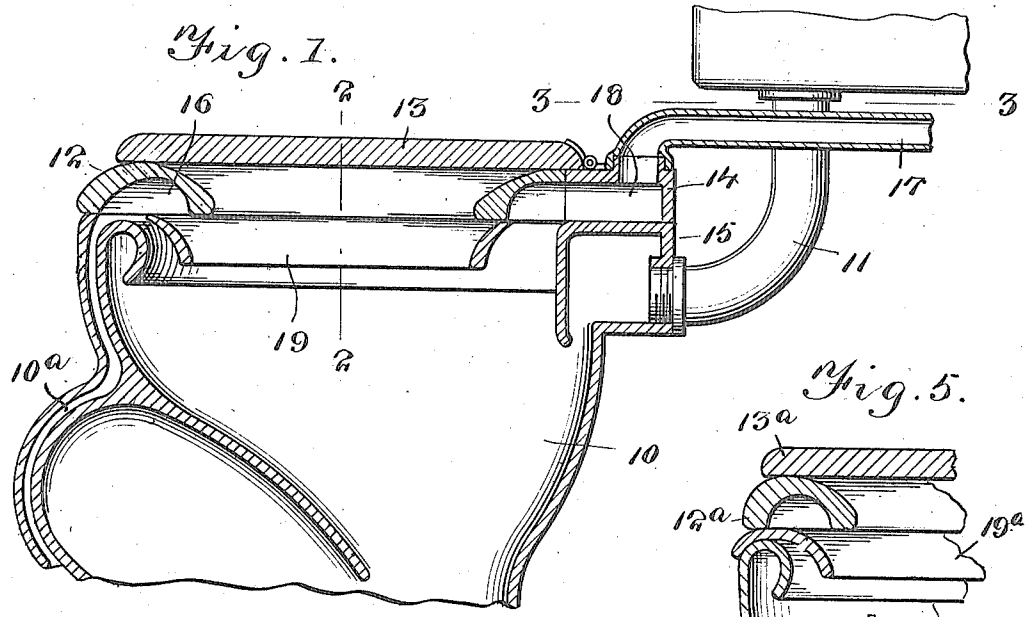
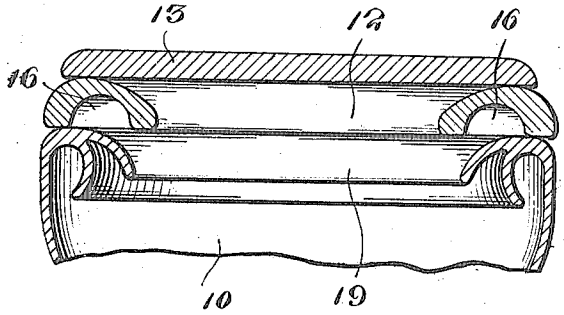


Fig. 5.

Fig. 2.



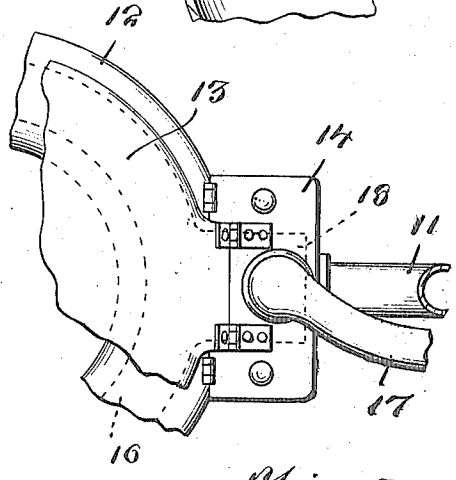
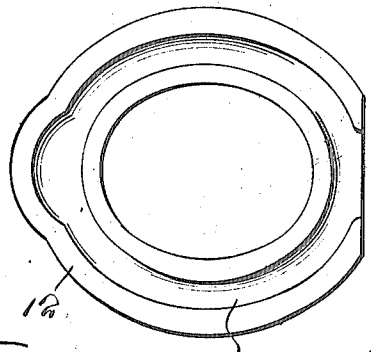


Fig. 3.

Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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TOILET.

1,213,113. Specification of Letters Patent. Patented Jan. 16, 1917.

Application filed April 26, 1915. Serial No. 23,898.

To all whom it may concern:

Be it known that I, JOHN LANGE, Jr., a citizen of the United States, residing at Des Moines, in the county of Polk and State of Iowa, have invented new and useful Improvements in Toilets, of which the following is a specification.

An object of the invention is to provide a toilet and seat therefor carrying off any disagreeable odors and preventing the same from being admitted to the room having the toilet therein.

The invention contemplates, among other features, the provision of a toilet which is so arranged and constructed that it will have the appearance of the ordinary toilet now generally used and which, through suitable channels and means, carries off any bad odors without in any way impairing the construction of the toilet or weakening the same to any appreciable extent.

In the further disclosure of the invention reference is to be had to the accompanying drawings, constituting a part of this specification, in which similar characters of reference denote corresponding parts in all the views, and in which:

Figure 1 is a vertical sectional view of the toilet; Fig. 2 is a vertical sectional view taken on the line 2—2 in Fig. 1; Fig. 3 is a vertical sectional view taken on the line 3—3 in Fig. 1; Fig. 4 is a bottom plan view of the seat; and Fig. 5 is a fragmentary vertical sectional view of a modified form.

Referring more particularly to the views, I disclose the usual bowl 10 to which is connected a pipe 11 for conveying water to the bowl for flushing the same, a seat 12 being provided to normally seat upon the upper edge of the bowl 10 with a lid 13 for the seat 12. The seat 12 is mounted to swing upon a support 14 which is bolted or otherwise secured to the usual ledge 15 of the bowl 10 at the rear, and the seat 12 is preferably U-shaped in cross section—said bowl being formed with a passage communicating with the interior of said bowl, thus forming an interior channel 16, said channel communicating with the interior of the bowl and terminating in the support 14 and which is preferably hollowed out to communicate with the channel. The support 14 has connected therewith an exhaust pipe 17 which may pass upwardly through the wall of the room to the roof of the house and which is adapted to carry off odors passing through the channel 16 into the chamber 18 formed by the hollowing out of the support 14. The lid 13 is mounted to swing upon the support 14 as is also the seat 12, and referring to the views it will be seen that when the seat 12 is in lowered position upon the bowl that portion of the seat forming the outer wall of the channel will repose upon the bowl 10. It will be noticed that the seat 12 at its forward end is provided with a forwardly projecting lip, as clearly shown in Fig. 4 which practically enlarges the width of the channel 16 at this point.

In order to increase the efficiency of the construction set forth and whereby any odors will be exhausted from the bowl, there is provided a passage 10^a in the bowl opening out of the top of and which, communicating with the interior of the bowl at its upper end, is open to the room and atmosphere at its other end, thus creating a suction whereby atmosphere in the room will pass into the passage 10^a and thence into the bowl, thus resulting in any odors in the bowl being mixed with the air from the room and passing upwardly into the channel 16 and along the channel into the chamber 18 of the support 14 from which the odors will pass into the pipe 17. The channel of the seat 12, where the lip is formed is in registration with the passage 10^a as shown in Fig. 1 while the channel 16 is at this point wide enough to connect this passage 10^a and the opening in the rim 19 of Fig. 1.

In Fig. 5 I disclose a slightly modified form of my construction and in which instance the bowl is indicated by the numeral 10^b, the seat by the numeral 12^a and the lid by the numeral 13^a. Now it will be noted that the bowl 10^b has its upper edge curved inwardly the same as in the preferred form of my construction and that the seat 12^a is also curved, an inwardly curved rim 19^a being interposed between the bowl 10^b and the seat 12^a, said rim being removable from between said bowl and seat, whereas in the preferred form of my device I provide a rim 19 which is formed with and projects from the upper curved portion of the bowl 10^b as clearly shown in Figs. 1 and 2, said rims 19 and 19^a forming circular channels or passages similar to the passage 16. The rim 19 or 19^a

provides an opening therethrough, and it is provided with an inlet port as shown in Fig. 1, adapted to be bridged by the channel 16 directly in front of the outlet of passage 16 whereby the odors arising from the bowl will be caught and carried around to the outlet of the bowl, as mentioned heretofore. It will be seen that air is drawn in through the vent passage 10^a and pass by way of the enlarged cavity in the channel 16 through the relatively small inlet opening in the rim 19 and this air can circulate around the rim until it is free to escape through the discharge port 18, and it can also pass downwardly into the bowl. At the same time air passes through the channel 16 of the seat as well as into the opening through the rim being able to expand downwardly into the center of the bowl. In this way the odors are delivered from every effective point of the bowl toward and through the discharge channel 18.

From the foregoing description it will be seen that the toilet described is of a simple construction, consists of few parts and that it will effectively accomplish the desired result, it being of course understood that the particular form of seat and support therefor can be used in a bowl which is not provided with a passage such as the passage 10^a, if desired.

Having thus described my invention, I claim:

In a device of the kind described, in combination a bowl, a substantially inverted U-shaped seat formed with an interior channel adapted to communicate with the interior of said bowl, a rim formed upon and projecting downwardly from the upper curved portion of said bowl, and forming an opening, said bowl being formed at its front side with an elongated vent passage taking in air at its lower end and opening out of the top of the bowl, said rim being formed with an opening adjacent said passage, and a lip formed at the forward end of said seat and enlarging the channel of the latter, said seat engaging said bowl and causing its enlarged channel to connect said passage and the opening in said rim and also to communicate with the opening through said rim.

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

JOHN LANGE, JR.

Witnesses:
CONRAD JOHN FREDRICKSON,
ALBERT F. SWAN.