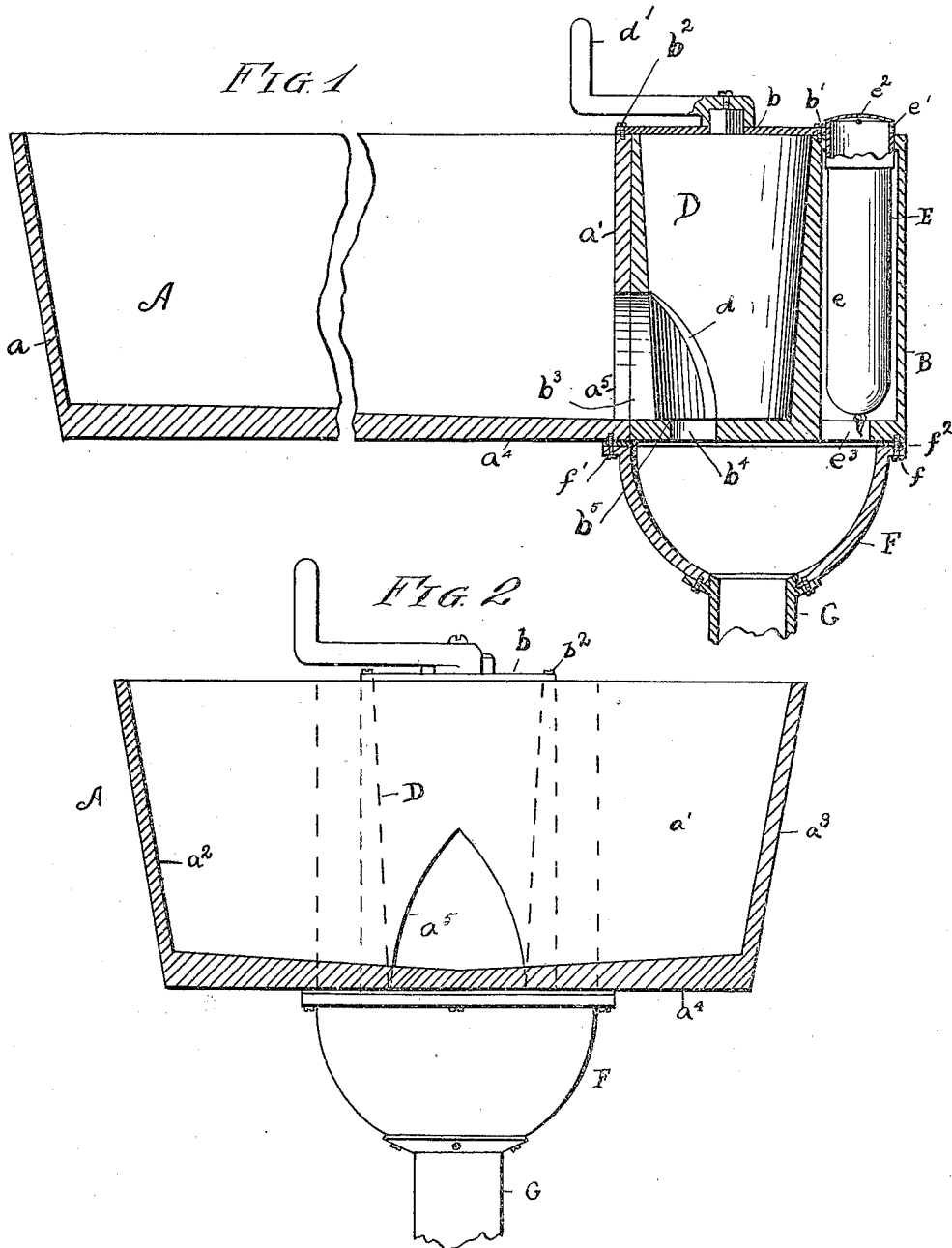


A. CIOLFI
SINK.

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952,233.

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WITNESSES:

Brennan West
Allan H. Heidenreich

INVENTOR,

Antonino Ciolfi
BY Bates, Fortis & Hull
ATTYS.

UNITED STATES PATENT OFFICE

ANTONINO CIOLOFI, OF CINCINNATI, OHIO, ASSIGNOR TO MAX LEVY, OF CINCINNATI, OHIO.

SINK.

952,233.

Specification of Letters Patent. Patented Mar. 15, 1910.

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To all whom it may concern:

Be it known that I, ANTONINO CIOLOFI, a subject of the King of Italy, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented a certain new and useful Improvement in Sinks, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

It is a well known fact that the liquids discharged from sinks in ordinary use contain more or less organic matter, which matter, decomposing, forms a fruitful source of production for germ colonies. In addition to the presence of such organic matter in the water, due to its solution therein, material particles of animal and vegetable matter are discharged into the waste pipe from the sink, some of which particles fail to be carried off to the sewer and decompose sufficiently near the point of connection of the sink with the waste pipe to permit the gases resulting from such decomposition to enter the apartment in which the sink is located. Moreover, owing to the solvent power of the water, gases produced by the decomposition of organic matter are temporarily retained in the water only to be liberated into the atmosphere of the kitchen from the upper part of the trap of the waste pipe.

The object of my invention is to provide a hygienic sink, either by constructing a new sink or by applying my invention to existing sinks, which will effectually isolate the atmosphere of the house from the waste pipe except only at such limited time as may be necessary to permit the discharge of waste liquids from the sink into the discharge outlet from the same and which will be provided with means applied thereto for disinfecting the sink and the adjacent portions.

Referring to the drawing, Figure 1 represents a broken longitudinal section of the sink constructed in accordance with my invention and Fig. 2 represents a transverse sectional view of such sink.

Describing the parts by letters, A designates a sink constructed in accordance with my invention, the same consisting of a body bounded by end walls a , a' , side walls a^2 , a^3 and a bottom a^4 . One wall of the sink, a' , referred to hereinafter as the "rear wall", is preferably vertical, while the other walls are inclined. The bottom is inclined from the front wall a to the rear wall a' and is

also inclined from each of the side walls a^2 , a^3 to the transverse central portion thereof, thereby forming a drain for said sink from the side walls to the center of the same and from the front to the rear thereof.

To the rear wall of the sink, I attach a casing B. This casing, as shown in Fig. 1, is provided with a chamber for the reception of a valve D and a chamber E for the reception of a disinfecting agent, as a sulfur candle e . The casing B is attached to the rear wall of the sink in any convenient manner, as by means of a plate b which is secured to the casing a by means of screws b' and to the rear wall of the sink by means of the screws b^2 . To the bottom of the casing B and to the bottom wall of the sink, a connection F is secured as by means of screws f , f' , said connection being suitably secured to the waste pipe G. Between the connection F and the casing B and bottom a^4 there is interposed a packing ring f^2 of suitable material, as asbestos.

Within the part of the casing B adjacent to the rear wall a' there is fitted the valve D, said valve being shown as an ordinary frusto-conical valve tapering from the upper portion of the casing to the lower portion thereof. The front wall of the casing B and the rear wall a of the sink are cut out as shown in Fig. 1, to form the registering openings a^5 , b^3 the cut out portion of the wall being at the transverse center of the sink and extending to the bottom of the same, whereby the sink may be entirely drained through said openings. The portion of the casing which is secured to the sink may be flattened out to form a plate and thus insure a tight joint between said casing and sink when the valve is opened. The boundaries of said flattened portion are indicated by the dotted lines on each side of the valve casing in Fig. 2.

The valve D has a portion cut out, preferably in the manner shown in Fig. 1, said cut out portion extending from the upper boundary of the opening b^3 to the bottom of the valve. This cut out portion extends from the periphery of the valve to a point between said periphery and the vertical axis of said valve and corresponds in area to the cut out portion of the casing.

In the bottom of the casing B is a discharge opening b^4 which extends from a point between the center and inner periph-

ery of the valve casing proper to a point slightly within the inner periphery of said casing. The inner periphery of this opening agrees in contour with that of the adjacent portion of the valve when the latter is in its open position. By making the outer periphery of this opening terminate within the inner periphery of the bottom, a ledge or shelf b^5 is provided, whereby a double cutting off action is obtained when the valve is closed, not only between the valve body and the vertical part of the casing but between the bottom of said body and said ledge or shelf. By the above construction, the communication between the sink A and connection F is entirely closed by turning the handle d' a half revolution.

The casing B is preferably of the same height as the rear wall of the sink, so that it may be secured to the upper portion of said wall with the bottom part of the casing on a level with the bottom of the sink. The thickness of the bottom wall of the casing is preferably the same as that of the adjacent portion of the bottom of the sink, so that when the bottom of the casing and the exterior bottom wall of the sink are on the same level, the upper surfaces of the bottom of the casing and the bottom of the sink are also on the same level. In order to disinfect the valve casing, the connection F and the adjacent parts of the sink, I have provided the casing B with an extension forming a chamber E at the rear portion thereof. The upper portion of the casing of the chamber E is provided with a screw threaded opening in which is a cylindrical clip or casing e' , carrying the sulfur candle e , said clip or casing being provided with a lug or lugs e^2 to facilitate the screwing of the clip or casing into the casing B. An opening e^3 is provided between the chamber E and the connection F. By the construction just described, the valve casing and its connection with the waste pipe and the adjacent parts of the sink may be disinfected, it being only necessary for this purpose to light the candle e and screw it into the chamber E. By leaving the valve D open a sufficient distance enough air may be supplied to the candle to permit the disinfection of the valve and its casing and the atmosphere of the room in which the sink is located.

It will be apparent that I have produced a device which will isolate the apartment in which sinks are located from contamination by the decomposing of organic matter contained in the liquids discharged into the waste pipe, which will provide for the disinfecting of said sinks and accessories, which is simple and durable in construction, which is effective in operation, and which may be applied with little expense to existing sinks.

While I have shown the rear wall of the

sink as vertical, this construction is not necessary to the successful operation of my invention, but is preferred where the sink is originally designed for the application thereto of my valve and disinfecting device.

While I have shown and described the valve casing as separate from the sink and removably attached thereto, it is obvious that the sink may be of cast metal, if desired, with the casing integral therewith, such differences in detail not affecting the spirit of my invention.

Having thus described my invention, what I claim is:

1. A sink having an outlet, a waste pipe, a connection between said waste pipe and said outlet, a casing secured to and intermediate of said sink and connection, said casing having a closed upper portion provided with a screw-threaded opening, a screw-threaded clip adapted to close said opening and carrying a sulfur candle, communication being provided between the portion of the casing carrying said candle and the connection, whereby said connection and its surrounding parts may be disinfected, substantially as described.

2. A sink having a discharge opening, a waste pipe, a connection between said waste pipe and said discharge opening, a casing secured to said sink and said connection and constructed to establish communication between said connection and the discharge opening of the sink, said casing having a chamber therein and said chamber being in communication with said connection, and means for removably fitting a sulfur candle in the chamber of the casing, substantially as described.

3. A sink having in one wall thereof an opening, a valve casing secured to said wall and having an inlet corresponding to said opening and an outlet in the bottom thereof, a valve interposed between said inlet and outlet, a waste pipe, a connection interposed between said valve casing outlet and said waste pipe, said casing being provided with a chamber communicating with said connection, and a sulfur candle removably fitting in said chamber, substantially as described.

4. A sink having in one wall and adjacent to the bottom thereof an opening, a valve casing secured to said wall, said casing being provided with a side opening registering with the opening in the wall and with a bottom opening, a connection secured to said sink and said casing, a waste pipe, a valve in said casing constructed to establish communication through said side and bottom openings with the connection and the sink and to entirely cut off communication between the connection and said sink, a disinfecting chamber carried by said valve casing, a sulfur candle in said casing, there be-

ing open communication between said chamber and the connection, substantially as described.

5 5. A sink having an outlet, a waste pipe, a valve casing intermediate of said outlet and said waste pipe, a valve in said casing, said casing being provided with an extension communicating with said casing and the waste pipe, and means for removably supporting a disinfecting agent in said extension, substantially as specified.

10 6. The combination, with a sink having an outlet connection at the bottom thereof, of a valve casing comprising a tubular body having a bottom wall provided with an aperture adapted to discharge into said outlet connection and having in the body thereof an aperture for the reception of the liquid from the sink, a solid rotatable valve body in said casing having its lower portion cut away at one side to form a port arranged to establish communication between said apertures, and means for rotating said valve body, the bottom of said valve casing being of sufficient extent to cut off communication between said port and the outlet connection when the valve body is turned to closed or cut-off position, substantially as specified.

20 7. The combination, with a sink having in one wall thereof an outlet port extending to the bottom of the sink, a valve casing car-

ried by said wall and having an aperture registering with the aperture in the wall of the sink, said casing having a bottom in a plane as low as the bottom of the sink, and said bottom being provided with an aperture located between the central portion thereof and the wall of the sink, a solid rotary plug in said casing having its lower portion cut away at one side to form a port extending from the side wall thereof to the bottom thereof, said port being adapted to register with the apertures in the valve casing, and means for rotating said valve body, substantially as specified.

8. The combination of a sink having an outlet connection, of a valve comprising a casing provided with apertures through which the contents of the sink may be discharged into said connection, a rotary plug in said casing having a port adapted to be brought into register with said apertures and to be entirely cut off from communication with said connection when the plug is turned to closed position, and means for disinfecting said connection and said plug, substantially as specified.

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

ANTONINO CIOLFI.

Witnesses:

NICHOLAS KLEIN,
AGNES B. GRANT.