C. W. RUSSELL.

SEWAGE DISPOSAL SYSTEM.

APPLICATION FILED SEPT. 9, 1918.

1,301,977.

Patented Apr. 29, 1919.

Fig. 1.

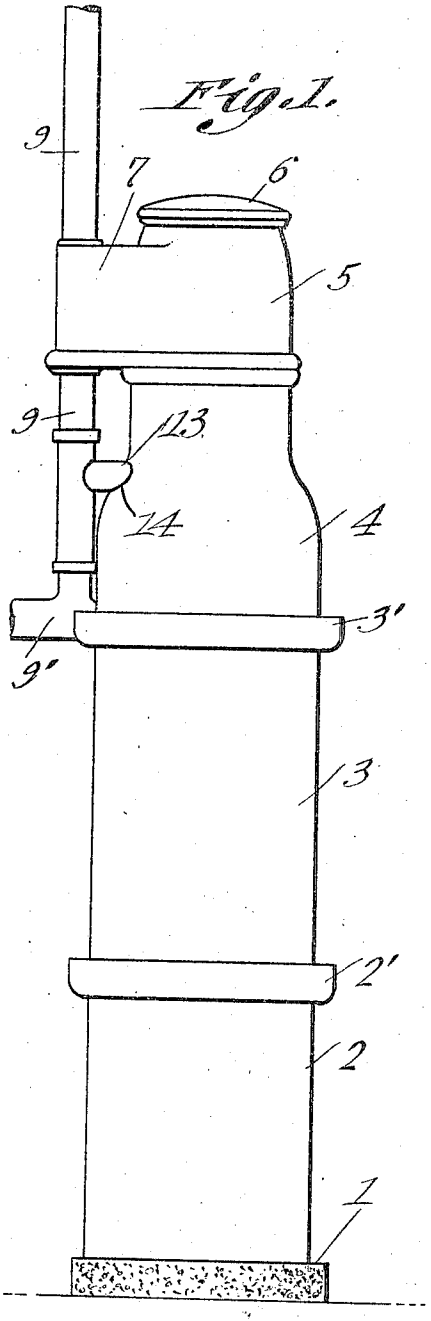
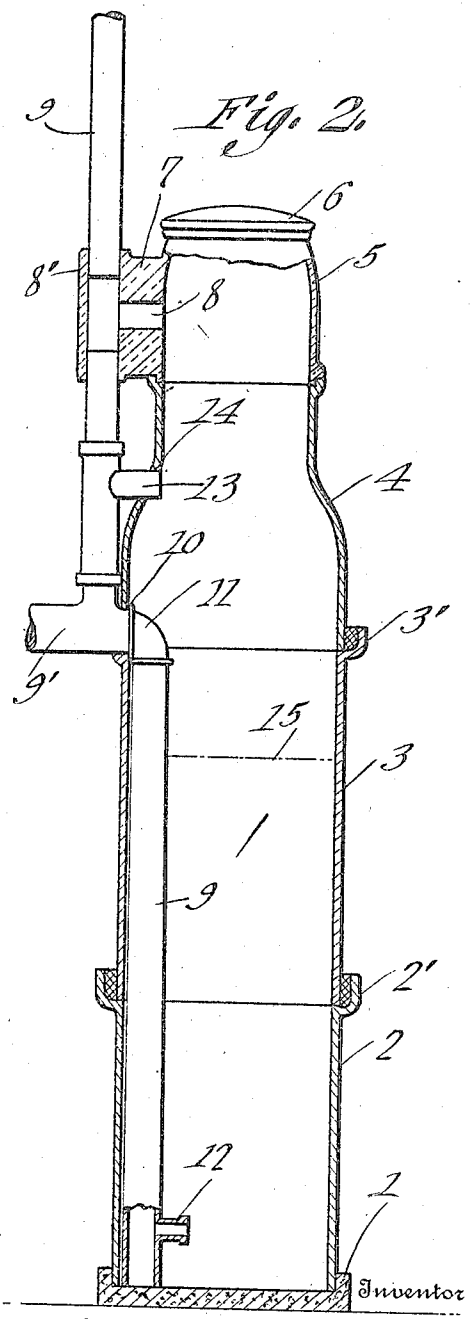


Fig. 2.



Witness

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UNITED STATES PATENT OFFICE.

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SEWAGE-DISPOSAL SYSTEM.

1,301,977. Specification of Letters Patent. Patented Apr. 29, 1919.

Application filed September 9, 1918. Serial No. 253,221.

To all whom it may concern:

Be it known that I, CORNEALIUS WELKER RUSSELL, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented a new and useful Sewage-Disposal System, of which the following is a specification.

The subject of this invention is a sewage disposal system without water works of that class in which a septic action is made use of.

The object of the invention is the provision of a simple and efficient system of this character capable of ready installation in localities where water works and sewer pipes are not convenient.

The invention also contemplates generally improving the construction and enhancing the utility of sewage disposal systems.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention can be made within the scope of what is claimed without departing from the spirit of the invention.

A practical structure for carrying out the invention is shown in the accompanying drawing, wherein:—

Figure 1 is a view in side elevation of a sewage disposal system constructed in accordance with the invention;

Fig. 2 is a central vertical section of the same.

Referring to the drawing by numerals of reference:—

In carrying out the invention there is provided a base 1, preferably formed of concrete or cement, and on this base is set, while the cement is still green, the disposal system, consisting of a section of pipe 2, of terra cotta, or like material, and set vertically upon the base 1. The pipe 2 is formed with the usual flanged, or bell end 2′ into which the opposed end of an adjacent section of pipe is adapted to telescope.

The end of a similar pipe section 3 telescopes into the bell end 2′ of the pipe 2, and this section is likewise provided with a bell end 3′.

One end of a section 4 telescopes into the bell end 3′, and is secured therein by cement or otherwise, and the upper portion of the section 4 is reduced as shown. Seated on the upper end of the section 4 is the bowl 5, preferably made of china, and normally closed by a cover 6.

The bowl 5 is formed with an integral projection 7, which is cored to provide a vent 8 which establishes communication between the interior of the bowl and a vent or core 8′ formed in the projection 7 and adapted to receive the ends of the galvanized iron vent pipe 9.

Interposed in the vent pipe 9 is a T 9′, one end of the cross arms of which extends through an aperture 10, formed in the lower edge of the section 4. This end of the cross arms of the T is provided with an elbow 11 which connects to the upper end of that portion of the pipe 9 which is positioned within the lower sections of the system, that is, sections 2 and 3. The T 9′ serves to conduct water away from the septic tank, whenever there is an overflow of water therefrom.

Water enters the pipe from the tank through a nipple 12 which is provided on the lowest section of the pipe 9 and is situated well toward the bottom of the section 2.

The vent pipe has communication with the section 4 through a radially extending branch 13, formed on one section of the pipe 9, and extending through an aperture 14, formed in the section 4.

The septic tank, consisting of the sections 2 and 3, is filled with water to about the water line 15, and water from the liquefied sewage keeps the tank continually supplied with fresh water.

The operation of the device is as follows:—The tank is, as will be understood, so constructed as to preclude air and light, and is, as heretofore stated, supplied with water up to the water line 15.

When sewage is introduced to the tank it will, being lighter than the water, float on the water. Bacteria will form in the sewage and will, as is well known liquefy the sewage. After the device has been in use a short time the bacteria will have increased to such an extent that a large amount of sewage will easily be liquefied.

As the bacteria infected water is lighter than the pure water, the pure water will

gravitate to the bottom of the tank and will, when the tank becomes too full, overflow through the T 9'.

Having thus described the invention, what is claimed as new and sought by Letters Patent, is:—

1. A sewage disposal system, including a vertically disposed cylindrical member, a cover for said member, an overflow pipe within said member and having an opening within the member and near the bottom thereof, the said pipe extending from the member between the bottom and top thereof, and a vent pipe extending from the overflow pipe and communicating with the upper portion of the cylindrical member.

2. A sewage disposal system, including a vertically disposed cylindrical member closed at its lower end, a cover for said member, an overflow communicating with said member between its upper and lower ends, and a vent pipe communicating with the overflow and with the upper end of said member.

3. A sewage disposal system, including a vertically disposed cylindrical member closed at its lower end, the said member composed of sections, the upper section comprising a bowl closed with a cover, an overflow communicating with the lowest sections, and a vent pipe communicating with the overflow and with the upper sections, said bowl having an integral projection forming a passageway for establishing communication between said bowl and the vent pipe.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

CORNEALIUS WELKER RUSSELL.

Witnesses:
E. W. WISCHMEIER,
E. J. WETZ.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."