

1,222,157.

Patented Apr. 10, 1917.

2 SHEETS—SHEET 1.

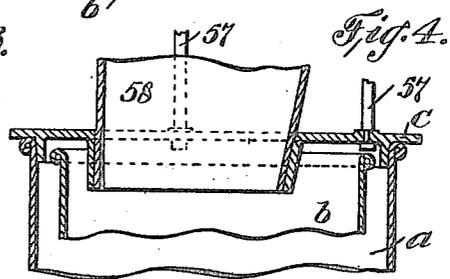
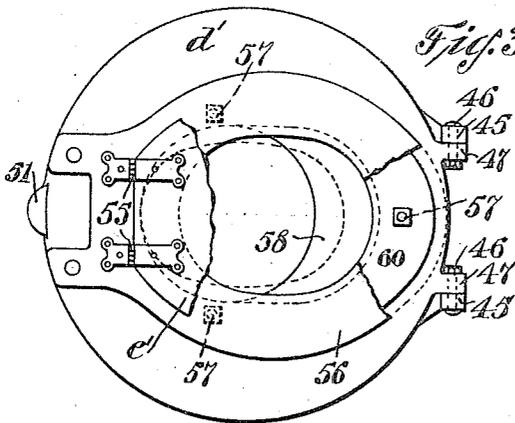
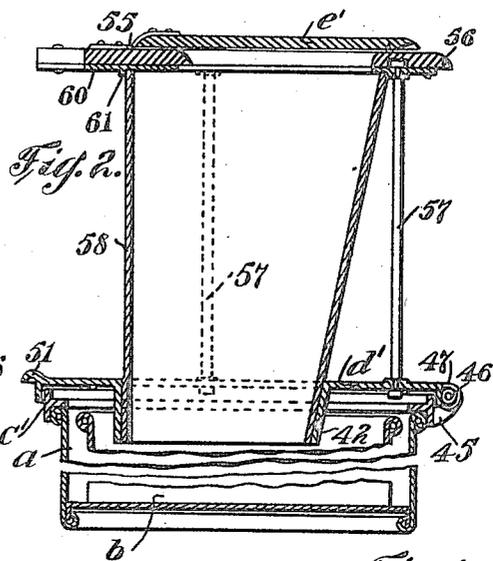
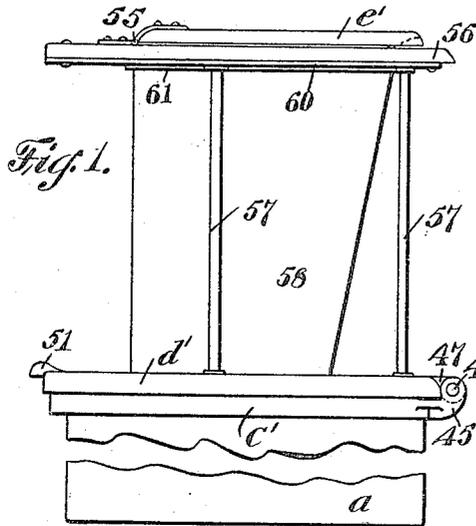
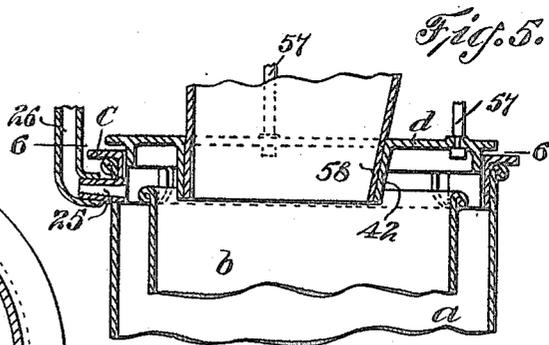
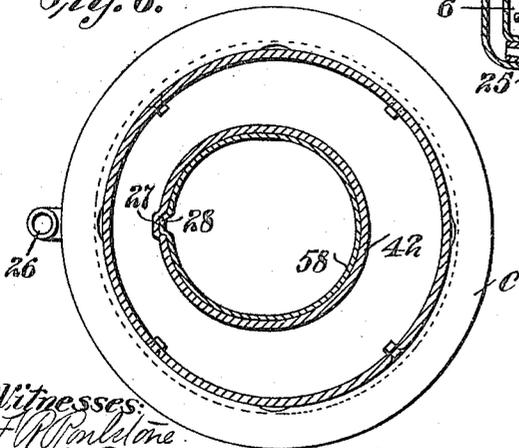


Fig. 6.



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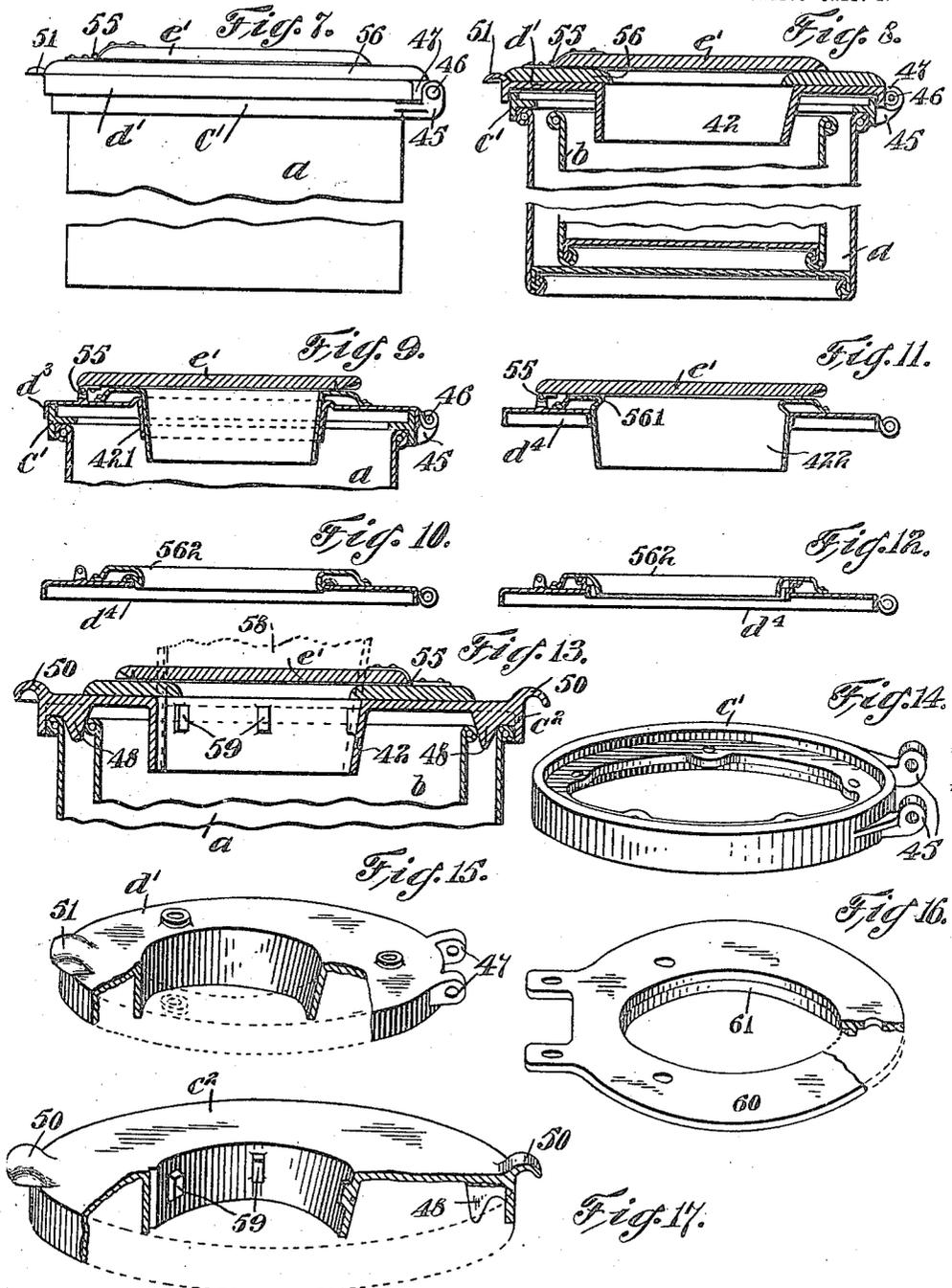
EARTH CLOSET.

APPLICATION FILED NOV. 23, 1909.

1,222,157.

Patented Apr. 10, 1917.

2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

CHARLES H. STEPHENSON, OF LYNN, MASSACHUSETTS.

## EARTH-CLOSET.

1,222,157.

Specification of Letters Patent. Patented Apr. 10, 1917.

Application filed November 23, 1909. Serial No. 529,629.

### To all whom it may concern:

Be it known that I, CHARLES H. STEPHENSON, of Lynn, in the county of Essex and State of Massachusetts, have invented certain new and useful Improvements in Earth-Closets, of which the following is a specification.

This invention relates to refuse disposal devices, and has particular reference to a system which may be referred to as a "unit system" in that different top units may be interchanged one for another to meet different conditions of use, without having to have on hand a complete set of units assembled to meet each of such conditions.

An especial object of the present invention is to provide an earth closet which may be embedded in the ground, or may be utilized without being sunken, as for instance, when a contractor is erecting a building, the device may be placed either in the cellar or on any floor of the partially completed building, whereby the workmen's time is saved. Of course, the device being portable can be utilized during the construction of boats, also.

Other objects of the invention are to provide improved details of construction, tending to durability and economy and ready interchangeability of parts.

To these ends the invention consists in the construction and combination of parts substantially as hereinafter described and claimed.

Of the accompanying drawings,—

Figure 1 is a side elevation, partly broken out, of one embodiment of my invention.

Fig. 2 represents a vertical section through the same.

Fig. 3 represents a plan view, with a portion of the lid and seat broken away.

Figs. 4 and 5 are sectional views similar to a portion of Fig. 2 but illustrating modifications hereinafter referred to.

Fig. 6 represents a section on line 6—6 of Fig. 5.

Figs. 7 and 8 are views similar to Figs. 1 and 2 respectively, but illustrating a different assemblage of units.

Figs. 9, 10, 11, 12 and 13 are detail sectional views illustrating modifications hereinafter referred to.

Figs. 14, 15, 16 and 17 are perspective views, partly broken out, to illustrate details of some of the units shown in other figures.

Similar reference characters indicate the same or similar parts in all of the views.

The receiver *a*, suitably constructed of metal and adapted to be either sunk in the ground, more or less completely, or to be set upon any level surface, is adapted to removably contain or receive a can or pail *b*. The ring member of the top is shown as resting upon and supported by the reinforced upper edge of the receiver. Said ring top may have a flat upper surface and a vertical flange fitting inside of the top of the receiver, as indicated at *c* in Fig. 4. Or it may be as indicated at *c'* in Figs. 1, 2, 8, 9 and 14, this form presenting a horizontal ring for resting on the top of the receiver, a vertical flange fitting around the top edge of the receiver, and having an upwardly extending flange to support another top or cover member presently described. Or said ring top may be formed as indicated at *c''* in Figs. 13 and 17, which structure will be hereinafter more fully described.

In order that sufficient of the cover or top may be removed or swung aside that the can or pail can be taken out of the receiver, I provide a ring-shaped cover *d* which may be formed as shown in Fig. 5, in which it is shown as completely removable from the ring top *c*. Or as shown at *d'* in Figs. 1, 2, 3, 8 and 15, the cover section *d'* has a hinged connection with the ring top and a seat-supporting upper face on which an apertured seat rests, as hereinafter described. As shown in Fig. 9, at *d''*, the ring-shaped cover may be of sheet metal hingedly connected with the ring top. As shown at *d'''* in Figs. 10, 11 and 12, said ring-shaped cover section may be somewhat differently formed although still made of sheet metal.

The ring-shaped member of the cover is provided with a downwardly extending skirt or flange 42 as indicated in Figs. 2, 8 and 13, which practically constitutes a short chute when the parts are assembled as indicated by full lines in Fig. 13. In Fig. 9, a similar skirt is indicated at 421, as integral with the section *d''*. In Fig. 11, a similar skirt is shown at 422 as integral with a raised portion forming a seat surface 561.

The skirt 42 may be utilized to receive and support the lower end of a chute 58 preferably of metal and shaped to fit the skirt 42, and having a height in practice of perhaps anywhere from 15 to 20 inches. The chute

58 is confined between a plate 60 having a seat-supporting upper face to which the seat member 56 is suitably secured, and the skirt 42, these parts being held in their relative positions by means of struts or rods 57, the lower ends of which are seated in suitable sockets formed therefor in the section  $d'$ , the upper ends being seated in suitable sockets therefor in the plate 60. The said rods 57 practically form the supports for the said member, and in order to retain the seat member on said rods, suitable nuts may be provided fitting threaded upper ends of said rods. This provides a structure in which the chute 58 constitutes an extension so that when the receiver is set in the ground the seat and lid  $c'$  will be at a normal height.

I preferably provide a hinged connection so that the assembled parts carrying the seat may be tilted over to one side sufficient to enable the can or pail  $b$  to be removed. A provision for such hinged connection may comprise lugs 45 projecting from the ring top  $c'$ , a pintle 46, and lugs 47 projecting from the cover section  $d'$ . I do not limit myself, however, to this construction. The ring section of the cover may be bodily removed, as indicated in Figs. 4 and 5 carrying with it all superposed parts.

For ventilation purposes, the receiver  $a$  may be provided with a vent 25 with which a pipe 26 may be connected to be led to any suitable draft passage. To insure the proper fitting of the chute 58 relatively to the skirt 42, the latter may be formed with a groove as indicated at 27 in Fig. 6, and the lower end of the chute being provided with a rib 28 which will fit the groove 27 when the parts are properly assembled.

As shown in Fig. 17, lugs 59 may be employed which lugs will serve to support any flat lid that may be fitted to the opening in the member  $c^2$ . If this form of member is to be employed in connection with a chute 58, as indicated by dotted lines in Fig. 13, the lower end of said chute would then be provided with suitable cut-out or depressed portions to fit over or pass by the lugs 59.

To properly center and hold the seat-plate 60 relatively to the top of the chute, said plate may be formed with a flange 61 (see Figs. 2 and 16). As the opening in the seat member is oval or non-circular, the flange 61 is similarly shaped and so also is the upper end of the chute. But the chute gradually changes its shape to a substantially circular one in cross-section at its lower end.

As indicated in Figs. 13 and 17, one of the top units may be provided with tapering lugs 48 adapted to project sufficiently between the upper edges of the receiver and can, to hold them in their proper relative positions. It is to be understood that the tapering lugs 48 shown in Figs. 13 and 17 might be formed on ring-shaped cover sec-

tions which are hinged instead of being bodily removable. I have not illustrated such lugs in connection with such structures as shown in Figs 2 and 8, in order to avoid confusion and unnecessary illustration.

It is to be understood of course that the cover section shown in Fig. 13 having the tapering lugs 48, does not, in practice, fit so closely to the top of the receiver  $a$  as to exclude the passage of air. And since the lugs 48 are of a shape so as to support the cover section somewhat above the tops of the receiver  $a$  and can  $b$ , provision is made for some ventilation when this form of cover section is employed.

When the top is bodily removable, the outer member will preferably be provided with handles such as indicated at 50 in Figs. 13 and 17. And when the top is hinged so as to be swung aside, it may be provided with a handle such as indicated at 51 in Figs. 1, 2, 3, 7, 8, and 15.

Fig. 11, shows a sheet metal ring section of cover, and with a separate sheet metal pressed member forming a seat and skirt as has been described. Figs. 10 and 12 indicate sheet metal ring-shaped cover sections having differently formed seat portions 562. The portions 562 may be of some material not so capable of conducting heat as metal.

It will be seen that with a receiver and can,  $a$  and  $b$ , of standard sizes, either of the different units or assemblages of seats can be assembled so as to adapt the device for use with the receiver sunk in which case the extension top would be used, or without its being sunk, in which case such a top as shown in the figures of the second sheet of the drawings would be used, and the top may be either of a hinged type or a bodily removable type, or a sheet metal seat section may be employed which is more durable and stronger than wood. It will be thus understood that I have provided a portable earth closet that may be set in the ground for some periods of use and which may be afterward taken out and transported to another building which a contractor may be putting up, or which may be used without being sunk in the ground and which could be utilized on any floor of a building, or in a boat.

I do not claim herein broadly the unit system described comprising the receiver, different ring-shaped cover sections either one of which may be fitted to the receiver and a cover for the opening of each of said sections, as the same is claimed in the Patent 1,011,874, granted to me December 12, 1911.

I claim:

1. A portable earth closet comprising an open top container, a ring top resting upon the upper edge thereof and provided with a flange adjacent its edge to engage the wall of said container to prevent relative movement of the two, said ring top being also

provided with a skirt extending into said container, a hopper having its lower end fitting within said skirt, and a seat plate supported by said ring top, independently of the hopper and located over the top thereof.

2. A portable earth closet comprising an open top container, a ring top resting upon the upper edge thereof and provided with a flange adjacent its edge to engage the wall of said container to prevent relative movement of the two, said ring top being also provided with a skirt extending into said container, a hopper having its lower end fitting within said skirt, a seat plate, and strut rods connecting said ring top and said seat plate.

3. A portable earth closet comprising an open top container, a ring top resting upon the upper edge thereof and provided with a flange adjacent its edge to engage the wall of said container to prevent relative movement of the two, said ring top being also provided with a hinged cover having a skirt

extending into the container, a hopper having its lower end fitting within said skirt, and a seat plate supported by said cover independently of the hopper, and located over the top thereof.

4. A portable earth closet comprising an open top container, a ring top resting upon the edge thereof and provided with a flange adjacent its edge to engage the wall of said container to prevent relative movement of the two, said ring top being also provided with a hinged cover member provided with a skirt extending into said container, a seat plate, and strut rods connecting said seat plate and the hinged cover portion of said ring top.

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

CHARLES H. STEPHENSON.

Witnesses:

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