(No Model.) 2 Sheets—Sheet 1.

F. J. CURTIS.

DRY CLOSET.

No. 592,107. Patented Oct. 19, 1897.

FIG. 1.

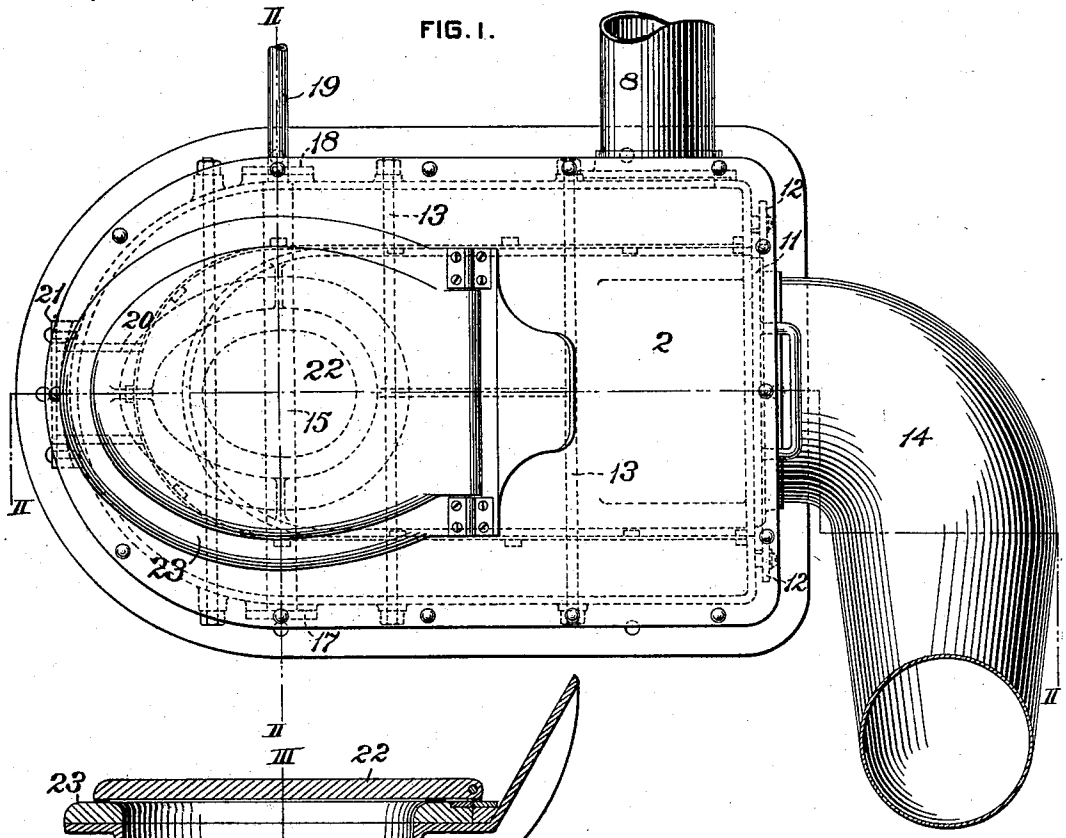
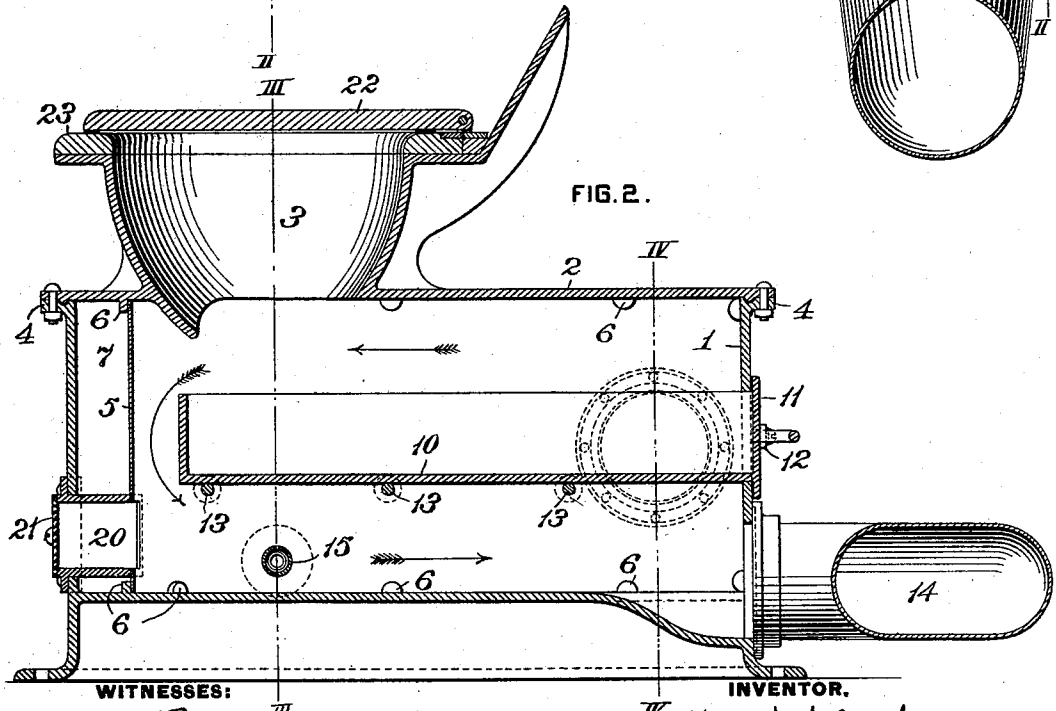


FIG. 2.



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(No Model.) 2 Sheets—Sheet 2.

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FIG. 3.

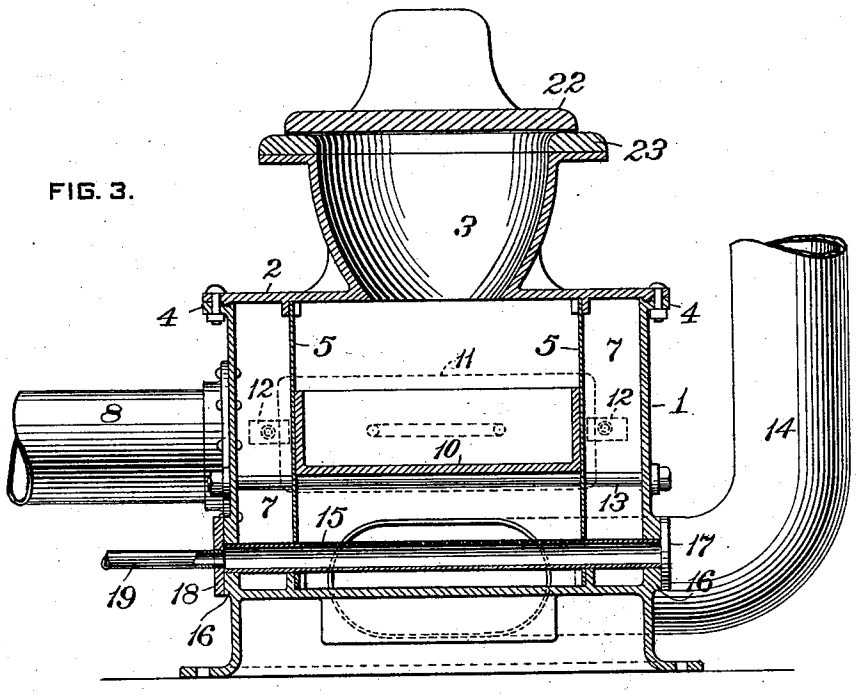
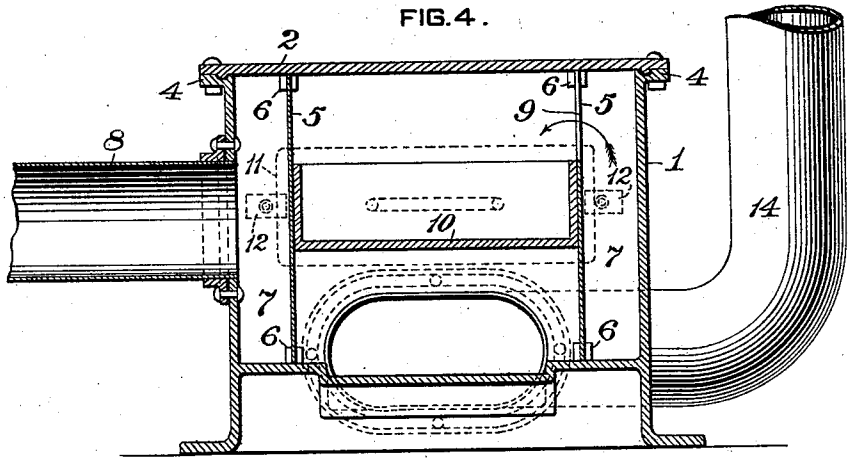


FIG. 4.



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UNITED STATES PATENT OFFICE.

FRANK J. CURTIS, OF BEN AVON, PENNSYLVANIA.

DRY CLOSET.

SPECIFICATION forming part of Letters Patent No. 592,107, dated October 19, 1897.

Application filed April 2, 1897. Serial No. 630,411. (No model.)

To all whom it may concern:

Be it known that I, FRANK J. CURTIS, a citizen of the United States, residing at Ben Avon, in the county of Allegheny and State of Pennsylvania, have invented or discovered certain new and useful Improvements in Dry Closets, of which improvements the following is a specification.

The invention described herein relates to certain improvements in dry closets, and has for its object a construction whereby the contents of the closet can be dried and reduced to an innocuous condition, all gases being caused to pass out of the escape-flue or uptake.

In general terms, the invention consists in the construction and combination, substantially as hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a top plan view of my improved closet. Fig. 2 is a sectional elevation of the same, the plane of section being indicated by the line II II, Fig. 1. Figs. 3 and 4 are transverse sections, the planes of section being indicated by the lines III III and IV IV, Fig. 2.

The body of the closet is made in the form of a box-like case or shell 1, preferably formed of cast-iron and having the bottom and sides integral with each other. The cover 2, having the bowl 3 formed integral therewith, is secured by screws or bolts to the flange 4, around the upper edge of the body, suitable packing being interposed between the cover and flange to form a tight joint. The inner or U-shaped casing 5 is arranged within the outer shell and parallel or approximately parallel therewith, the ends of the casing bearing against the rear wall of the box. The edges of the casing bear against the top and bottom of body, which are provided with staggered lugs 6, to hold the casing in position.

The flue or passage 7, between the inner casing and outer shell, is connected at one end by the pipe 8 to the outer air and at the opposite end connects with the chamber formed by the inner casing, through an opening 9 in the casing near its upper edge. A drawer 10 is inserted in the inner chamber through an opening in the wall of the outer shell. The outer end 11 of the drawer is made so as to overlap the edges of the opening through which the drawer is inserted and the joint between the overlapping edges is rendered gas-tight by interposed packing. The drawer is held in place by any suitable locking device, as the buttons 12, pivotally mounted on the shell, so that in one position a portion of the button will overlap the end of the drawer.

As shown in Figs. 1, 2, and 3, the drawer is supported about midway of the height of the inner chamber by rods 13, arranged transverse of the inner chamber, and having their ends secured by preference to the outer shell, so as to render them more rigid. The drawer is made of such a length compared to the length of the inner chamber as to leave a passage between its inner end and the casing 5, connecting the spaces above and below the drawer or pan, which is made of such a width as to form a comparatively tight joint with the sides of the casing. The space in the inner chamber below the drawer or pan is connected at the rear end of the closet with an escape-pipe 14, which should extend up through the roof of the house.

A gas-burner is arranged below the drawer or pan so as to effectively heat the latter and reduce the contents thereof to ashes, or to a dry, innocuous condition. A convenient form of burner consists of a tube 15, extending transverse of the closet and having its ends arranged in sockets 16, formed in the sides of the shell. The portion of the tube within the inner chamber is perforated for the escape of gas, and the ends of the tube are closed by plates 17 and 18, bolted or otherwise secured on the sockets. The gas-supply pipe 19 projects through one of the plates, which is preferably threaded onto the end of the pipe. In order to ignite the gas in the inner chamber, a short tube 20 is passed through the shell and casing in convenient relation to the gas-burner, as shown in Fig. 2. The outer end of the tube 20 is closed by a swinging plate 21.

The bowl 3 is normally closed by a lid 22, provided with a packing-ring, so as to form a tight joint with the seat 23.

It will be observed that air enters the closet through the pipe 8, and flowing along the passage 7 between the inner casing and outer shell enters the rear end of the inner cham-

ber through the opening 9 above the drawer or pan. As the connection between the spaces above and below the pan or drawer is at the front end of the chamber, the air must pass forward and then down around the end of the drawer to the space below the latter, and escapes through the pipe or uptake 14.

It will be observed that the air after passing over the pan must pass through the gas-flame, whereby all innocuous gases mixed with the air will be destroyed. As the draft will always be strongly through the uptake on account of the relative position of the burner and uptake, gases cannot escape from the closet even if the lid is open, the draft being then down through the bowl. The ventilation of the inner chamber can be thoroughly effected by connecting the pipe 8 directly to the rear end of the inner chamber above the pan, but by causing the air to flow around outside of the casing any gases which may escape through the joints between the casing and the top and bottom of the shell will be carried to the uptake, and, further, this outer flue or passage prevents the walls of the closet from becoming heated.

I claim herein as my invention—

1. In a dry closet, the combination, of a chamber, a removable pan or receptacle so arranged in said chamber as to divide the chamber into two compartments, one of the dimensions of the pan being less than the corresponding dimension of the chamber thereby forming a passage connecting the two compartments, a port arranged to admit air into the compartment above the pan, an outlet connected to the compartment below the pan, and a gas-burner arranged below the pan, substantially as set forth.

2. In a dry closet, the combination of a shell, a casing so arranged within the shell as to form a passage around the casing, a pan or receptacle arranged within the casing, and dividing the chamber formed by the casing into two connected compartments, the compartment above the pan being connected to said passage and the compartment below the pan being connected to an outlet-pipe, and a gas-burner arranged below the pan, substantially as set forth.

3. In a dry closet, the combination of a shell, a casing arranged within the shell so as to form a passage around the casing, a removable pan or drawer so supported within the chamber formed by the casing as to divide it into two connected compartments, the upper compartment being connected to the passage and the lower compartment being connected to an uptake, and a burner so arranged below the pan that air flowing over the latter will pass through the flame, substantially as set forth.

In testimony whereof I have hereunto set my hand.

FRANK J. CURTIS.

Witnesses:
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F. E. GAITHER.