(No Model.) 2 Sheets—Sheet 1.

T. W. CARRICO.

CONSTRUCTION OF PRIVY VAULTS.

No. 445,848. Patented Feb. 3, 1891.

Fig 1

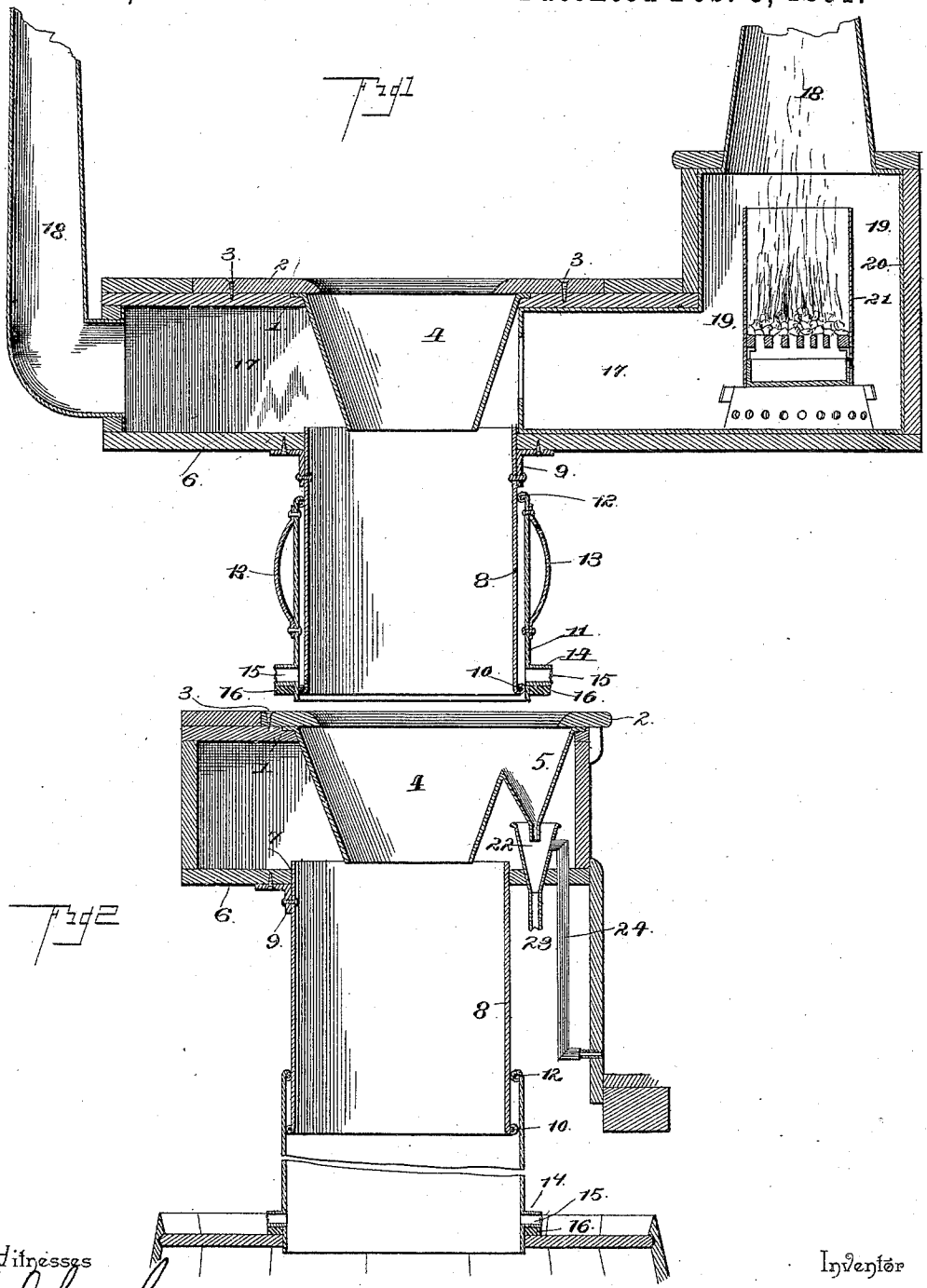


Fig 2

Witnesses
John Amirie
Wm. Bagger

Inventor
Thomas W. Carrico

By his Attorneys,
C. A. Snow & Co.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

(No Model.) 2 Sheets—Sheet 2.

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Fig 3

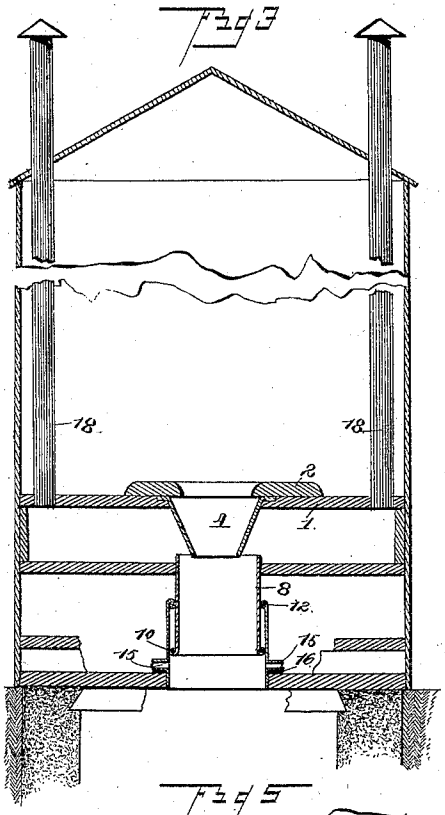


Fig 4

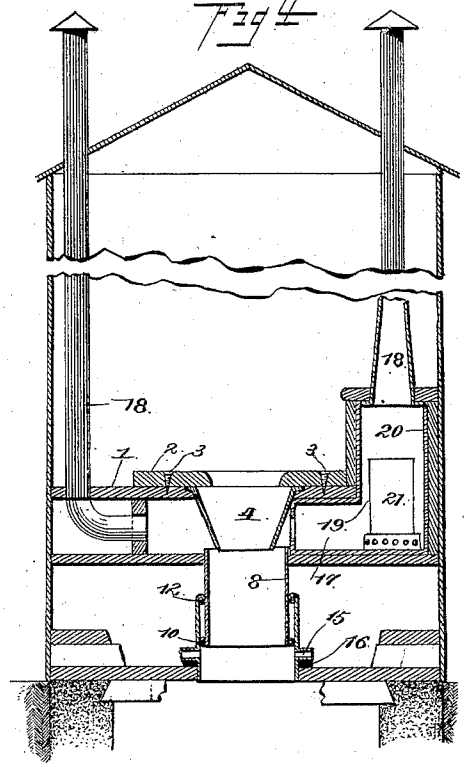


Fig 5

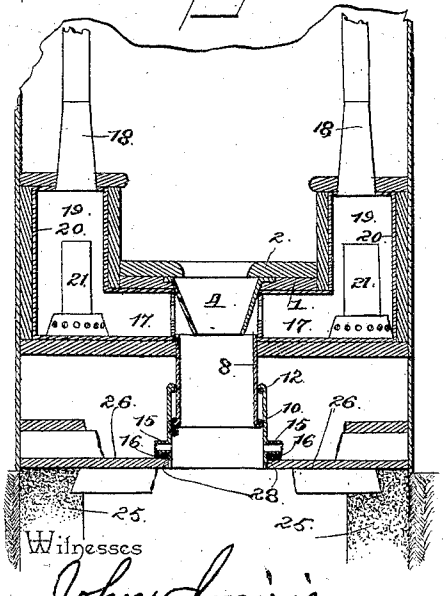
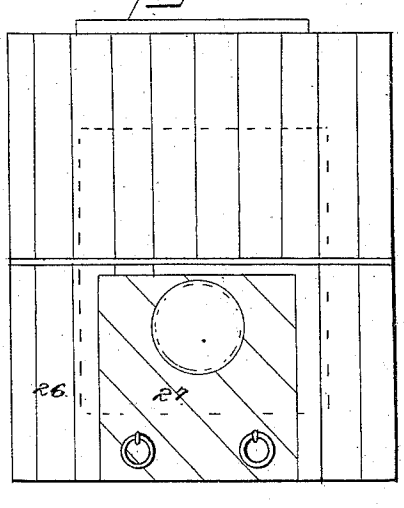


Fig 6



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS W. CARRICO, OF SAN ANTONIO, TEXAS, ASSIGNOR OF ONE-THIRD TO FRANCIS A. CARRICO AND THOMAS W. CARRICO, BOTH OF SAME PLACE.

CONSTRUCTION OF PRIVY-VAULTS.

SPECIFICATION forming part of Letters Patent No. 445,848, dated February 3, 1891.

Application filed July 27, 1889. Serial No. 318,985. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. CARRICO, a citizen of the United States, residing at San Antonio, in the county of Bexar and State of Texas, have invented a new and useful Construction of Privy-Vaults, of which the following is a specification.

This invention relates to the construction of privy-vaults and apparatus for use in connection therewith, and it may be described as an improvement on the device for which Letters Patent of the United States No. 335,177 were issued to myself on the 2d day of February, 1886.

The present invention consists in the improved construction and arrangement of details, which will be hereinafter fully described, and particularly pointed out in the claims.

In the drawings hereto annexed, Figure 1 is a vertical transverse sectional view showing my invention applied to a privy. Fig. 2 is a longitudinal vertical sectional view of the same. Figs. 3, 4, and 5 are vertical sectional views illustrating modifications of my invention as applied to an ordinary privy-vault. Fig. 6 is a plan view of the invention applied to a privy-vault.

Like numerals of reference indicate like parts in all the figures.

1 designates the seat-board of a privy, which supports the loose seat 2, which may either be hinged or it may, as in the drawings hereto annexed, be secured in position detachably by means of ordinary wood-screws 3.

Permanently attached to the under side of the seat 2 is a funnel-shaped hopper 4 to conduct the excrement to the receptacle provided for its reception. The hopper 4 is constructed with a separate funnel 5 to separate the urine from the excrement and conduct it to a separate place of deposit. The pan or hopper 4, it will be seen, is attached permanently to the under side of the removable or hinged seat, and may at any time be raised or removed with the latter.

Arranged below the seat-board and parallel therewith is a horizontal partition 6, having an opening 7, which registers with the seat-opening, and to which is attached a downwardly-extending soil pipe or tube 8, which is secured by means of angle-irons 9 to the under side of the said horizontal partition. The lower end of the said tube is provided with an annular bead or flange 10.

Mounted to slide vertically upon the tube 8 is a sleeve 11, the upper edge of which has a bead or flange 12, similar to the flange 10 at the lower edge of the tube 8. It will thus be seen that the soil pipe or tube 8 and sleeve 11 are not in contact with each other, except at the flanges 10 12, thereby reducing the frictional contact to a minimum and enabling the sleeve 11 to be conveniently and easily adjusted. Said sleeve is furthermore, for convenience in adjusting it, provided with handles 13. The sleeve 11 is provided near its lower edge with outwardly-extending tubes 14, the outer or inner ends of which are closed by wire-netting 15 to prevent the ingress or egress of insects and vermin and at the same time afford proper ventilation.

Arranged upon the lower end of the sleeve 11 below the tubes 14 is an elastic collar or gasket 16, forming a packing-ring. The lower end of the sleeve 11 is in practice inserted into an opening in the head of a barrel or in the cover of a vault which forms a receptacle for the excrement, and the tubes 14 serve to press the packing-ring down, and thus form a tight joint. An annular flange may, when desired, be formed upon the sleeve 11 near its lower end to compress the packing ring or gasket.

The space between the seat-board 1 and the horizontal partition 6 forms an air-chamber 17, from which one or more ventilating-flues 18 extend to the outer air.

Suitably constructed in the air-chamber 17, below one of the ventilating-flues, is a chamber or pocket 19, which is lined with sheet metal 20, and in which is placed an open charcoal furnace or fire-pot 21. It will be seen that by igniting the charcoal in the latter an upward draft or current is caused from the receptacle up through the soil-pipe, air-chamber, and fire-pot in the flue 18, which will greatly improve and assist the ventilation, the noxious gases being consumed and rendered innoxious in passing through the flames of the fire-pot. This part of my invention may, when desired, be modified by connecting the space or chamber 17 by means of a

suitable flue or flues directly with a stove or furnace, the draft in which will cause the noxious gases to be drawn from the space 17 and carried off with the products of combustion or consumed in the furnace, as the case may be.

Access to the charcoal-furnace may be had through a suitable door which has not been shown in the drawings. Such door should be kept securely locked to prevent tampering with the furnace.

Mounted in the partition 6 below the urine-funnel 5 of the pan or hopper 4 is a funnel 22, from which a pipe 23 conducts the urine to some suitable receptacle. (Not shown in the drawings.) A ventilating-pipe 24 connects the funnel 22 with the outer air. By this arrangement stale and unpleasant odors are effectually avoided and the urine is effectively separated from the excrement.

In Figs. 1 and 2 of the drawings my invention has been shown as applied to an outhouse in which barrels or similar receptacles are provided to receive the excrement, as provided for in my patent, No. 335,177, to which reference has been made above. In the remaining figures the invention has been shown as applied to an ordinary vault or cesspool 25. The latter is constructed with a top 26, forming the floor of the privy and having a trap-door 27, through which access may be had to the interior, and which is provided with the opening 28 to receive the lower end of the sleeve 11. In Fig. 3 the charcoal-furnace 21 has been dispensed with and two ventilating-flues 18 have been shown. In Fig. 4 one charcoal-furnace has been shown arranged substantially as in Fig. 1, and in Fig. 5 two such furnaces have been shown arranged each under one of the ventilating-flues 18.

The operation and advantages of this invention will be readily understood from the foregoing description, taken in connection with the drawings hereto annexed, by those skilled in the art to which it appertains. First of all, it will be seen that the separating pan or hopper 4 is entirely separate from the pipe 8 and its attachments, permitting the seat to which said pan or hopper is attached to be at any time readily raised or removed, so that access may be had to the interior for purposes of inspection or for the purpose of cleaning and washing the space or chamber 17. When this is properly attended to, the privy constructed with my improvements will be found to be absolutely odorless. The sleeve 11 may be readily adjusted upon the tube 8 to the height of the receptacle for the excrement, and may at any time be easily raised when access to the latter is desired. The tubes 14 will admit a sufficient draft of air for ventilating purposes, and, owing to the draft created in the chamber 17 through the flues 18, the noxious gases will pass from the tube 8 into the said chamber, and thence through the charcoal-furnace and the flues 18 to the outer air. When one or more of the charcoal burners or furnaces are employed, the draft will be improved and the noxious gases will be consumed, as set forth.

By this invention the excrement will be practically desiccated, and thus not only be deprived of all unpleasant odor, but will be very much reduced in bulk, the importance of which is obvious.

I have herein described the preferred construction of my invention; but I would have it understood that I reserve the right to make any alterations and modifications in the detailed construction which may be resorted to without departing from the spirit of my invention.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The combination of a vault or excrement-receptacle, a soil-pipe having a vertically-adjustable sleeve forming a connection between said receptacle and a horizontal partition, and the seat-board arranged above said partition, between which and the seat-board an air space or chamber is thus formed, substantially as and for the purpose set forth.

2. The combination of the seat-board, the horizontal partition, and the soil-pipe with the sleeve adapted to be connected with the trap-door of the vault-floor, substantially as set forth.

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

THOMAS W. CARRICO.

Witnesses:
GEO. M. MAVERICK,
WM. S. TEMPLE.