

A. CHIKANCEFF.
STOVE CLOSET AND INCINERATOR.
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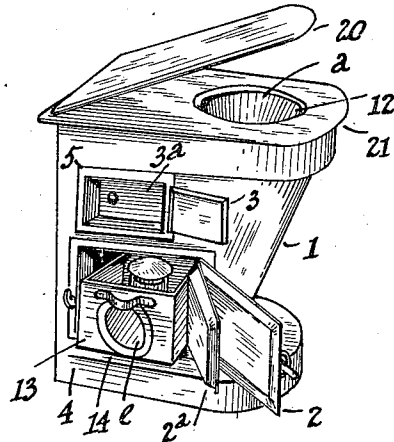


Fig. 1

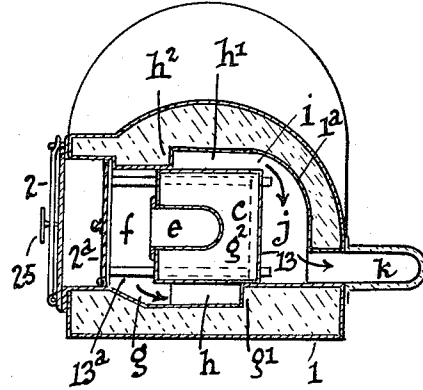


Fig. 4

Fig. 2

Fig. 3

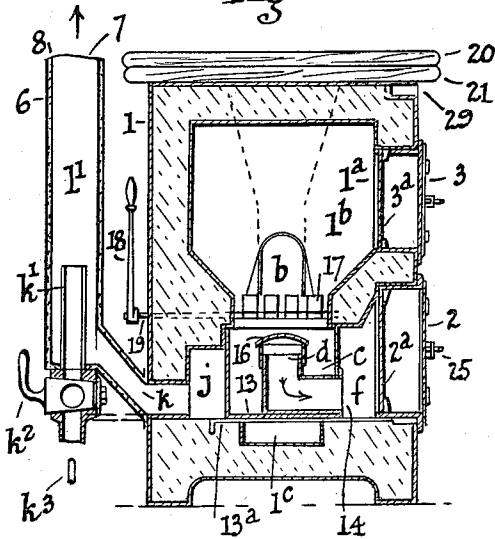


Fig. 5

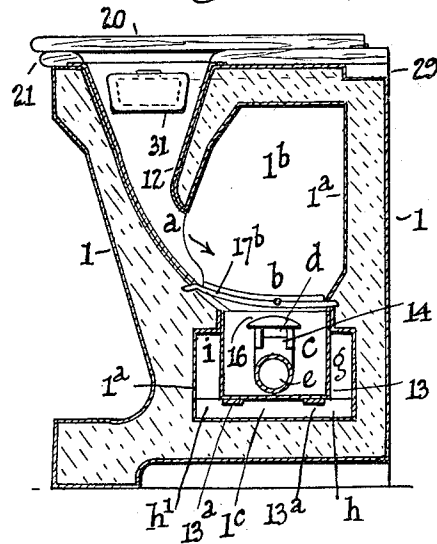
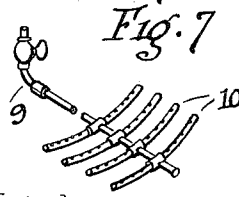
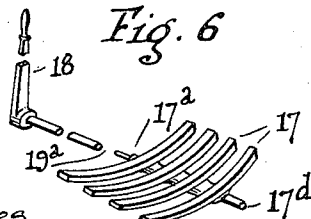
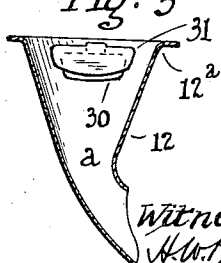


Fig. 6

Fig. 7



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ANTHONY CHIKANCEFF, OF LAVERTON, VICTORIA, AUSTRALIA.

STOVE-CLOSET AND INCINERATOR.

1,052,315.

Specification of Letters Patent.

Patented Feb. 4, 1913.

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To all whom it may concern:

Be it known that I, ANTHONY CHIKANCEFF, a subject of the Czar of Russia, residing at Laverton, in the State of Victoria, Commonwealth of Australia, have invented certain new and useful Improvements in and Relating to Stove-Closets and Incinerators; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a portable or other stove closet or incinerator, plain or ornamental, and having ventilation devices, and which burns solid matter and evaporates liquid, and is arranged to cause a draft to an outlet as a house chimney, or room exterior, so that odors do not freely pass from the closet into any room containing it,—in fact there is ventilation from the room through the closet to the chimney or outlet. When made large, this incinerator is adapted for consuming rubbish or products other than human waste, and its external shape may vary considerably. I may at will use enameled surfaces.

Figure 1 shows a perspective view of my device omitting stove piping. A stove pipe is seen in Fig. 2, which is a vertical section of the closet, the said pipe being ordinarily set with its top in a chimney so as to take advantage of (and when required it will even promote) updraft therein. Fig. 3 is a vertical section at right angles to that in Fig. 2. Fig. 4 is a plan view, partly in horizontal section, through the lower part of the closet. Fig. 5 is a sectional view of a receiving funnel, or duct; Fig. 6 is a perspective view of fire bars with part of a handle therefor; and Fig. 7 is a perspective view of a gas burner, usable at will, the invention being adapted to utilize other fuels when desired.

The materials used in constructing the closet may vary, but appropriate ones are herein mentioned by way of example.

This invention is not limited as to the numbers of some of its parts but a simple embodiment of it has been illustrated for explanatory purposes.

I ordinarily provide a body having a casing or outer iron shell of any suitable form, as for example sloped and rounded in front (see Fig. 1), and fit it with means

of access to its interior as doors 2, 3, located as on one side, these being closable air tight upon suitable frames or rims 4, 5. Within these doors 2, 3, I may use respective inner doors, or removable heat inclosing plates 2^a, 3^a. The doors may screw down, Fig. 4 being a tightening screw.

There is, within the outer casing 1, ordinarily an inner casing or shell 1^a, which leaves an internal stove chamber, from the lower portion 1^c of which there is an outlet as an iron pipe 7. A pipe 6 within the pipe 7 provides a space which is filled with material 8, which is a poor conductor of heat. The stove chamber has an upper space 1^b, which serves as a fire box, and there is a branch space which receives a funnel 12.

I provide an upper lid or lids, as 20, 21 over the funnel top, fixed as on hinges.

Casings 1 and 1^a have between them a suitable non-combustible filling as loose sand, or hard cement, potteryware, concrete, brick- 75 ing, or other suitable material, which obviously may itself form the outer and inner walls, or either, and enable one or more of the shells to be omitted. The casings may each be made of several plates or castings fixed together, such details being variable and not shown. When sand is used it would naturally be emptied out and left behind upon the stove being transported to any considerable distance.

The removable receiving metal funnel or duct 12 is usually of copper and leads to fire bars 17 over an ash and waste pan 13 which is set upon bearers 13^a above the floor of the stove air space 1^c. This ash pan is surrounded by air except at opposite corners or sides where it fits against walls of the inner air space of the stove body as at *g*¹ and *h*² in Fig. 4, and also where its base has a support at the rear as step *g*². This pan contains a flue (shown angular) to receive smoke and gases, and having an upper hooded or like part under fire grate 17, and a lower end 14 open to the pan exterior, for example facing door 2^a. Hood 16 prevents the flue being fouled, and is of any suitable form, as conical, or, as in Fig. 1, flat. This hood is attached to the flue top or can be supported from above as by the grate. Pan 13 is set in place through door 2; it not only receives ashes but also burnt (or in minor degree other) excretions. The grate has any suitable details, and ordinarily can be

lifted through a predetermined door, as to be cleaned.

When a fire is burning, or in any case when there is updraft at the top of piping 6 a draft will pass through the series of passages or spaces indicated in part by arrows and as a whole by successive letters *a, b, c, d, e, f, g, h, i, j, k, and l*. Passage or space *a* is in the funnel, *b* at the grate top, *c* in pan 13, *d* in the pan flue, *e* at the flue exit, *f* in front of the pan, and *g* at one side of the pan (see Fig. 4). Passage *g* has a wall at *g*¹, and its base meets one side *h* of a passage under the pan, the other side *h*¹ meeting a passage *i* which has a wall *h*² at one side of the pan, and leads behind the pan through space *j* to the flue base *k*, and thence to the passage *l*. This arrangement of parts enables pan 13 to be kept hot at every part, so that any liquid or other matter entering it will be dried up. The pan flue will also become hot, and the stove chamber under the fire will to some extent act as a smoke consumer.

I provide means for updraft, also in some cases in the outer pipe or chimney 7 as seen in Fig. 2 whereby to allow the introduction of a flame or heated air.

As shown *k*¹ is a tube in pipe 7, the base of which can be shut off by the tap *k*²; *k*³ indicating a source of flame is a gas burner, the end of a taper, or so forth. A lighted taper can be pushed up tube *k*¹ and then tap *k*² closed, or the tap can be left open while a gas flame is playing up the tube—the draft thus created can be shut off at will; the most desirable time for having the flame being when the air in tube 7 is sluggish, before the fire on the grate of the incinerator is lighted. The construction of the auxiliary draft means may vary in detail while securing the indicated result.

Most excretions, or material to be incinerated which may include other domestic refuse, will be stopped and desiccated by the fire. Liquid will not so reach the latter as to extinguish it, but will for the most part enter the pan.

Fuel can be fed to the fire bars through the upper door, or the funnel, wood, coal, coke, or so on being generally chosen, or gaseous fuel may be used. Thus a gas pipe 9 may have perforated bars 10 (see Fig. 7) so fitted as to come under the fire bars 17, and be protected thereby. This gas fire could be lighted and extinguished and regulated in size from time to time to meet the conditions of each case. When a fire is maintained heat is absorbed by the closet body, and is radiated or conveyed back into the inner spaces 1^b, 1^c even after the fire is out.

If lid 20 is open, air passes down funnel 12, and products of combustion are drawn down through the grate and will escape as aforesaid. If the lid is closed, a like draft is in-

duced through one or more passages as 29 entering—as under lid 21—into the funnel through an inlet 30, to be closed by a check valve or door 31, which opens only to allow the draft to enter, and closes if a draft up the funnel begins. No check valve, or passage 29, is used if some other opening, as the funnel top is relied on. Passage 29 might be in the lid 21, and at the front or otherwise.

For attention to the fire, the door 3 (and 3^a if used) is opened, and if there be solid fuel a poker may be used, but I arrange ordinarily that the grate may be shaken to cause it to drop its ash, by rocking it, by means of an external handle 18 having a connecting rod 19 the end 19^a of which may fit when required a projection or recess of the fire grate, the pintles 17^a, 17^b of which may rest on bearers 17^b, or have any suitable support. When the lower door is opened, the pan can be removed, emptied, and returned.

The relative sizes of the parts can be varied according to the local conditions as where the heat is required to be greater, or the surfaces for evaporation or desiccation larger. The lid arrangements may vary to suit adults or children but such details are not in themselves claimed. To further separate liquid, pan 13 may have an exit not shown leading to any further point.

Multiple closets having a series of funnels to one fire grate and pan or each with a different pan are usable. Any pan door or doors might be at the rear, these also being minor details.

Having described this invention what is claimed by Letters Patent is:—

1. In an apparatus of the character described, the combination of a casing having a chamber, and a passageway leading thereto; a grate dividing said chamber and providing a fire box; a receptacle located in the chamber immediately beneath the grate and open at said grate, and providing a passageway with the walls of the chamber; a flue located in the receptacle and providing communication between said receptacle and said passageway; and a pipe outside said casing communicating with said last named passageway, substantially as described.

2. In an apparatus of the character described, the combination of a casing comprising spaced walls, and providing a chamber; a filling between said walls; a grate dividing said chamber and providing a fire box; a receptacle in the chamber immediately beneath the grate and open at said grate; the walls of said receptacle and the chamber constructed to provide a tortuous passageway; a flue located in the receptacle and opening into said tortuous passageway; a hood mounted on the flue within the receptacle and providing communication with the

receptacle; and a pipe outside of said casing communicating with said tortuous passageway, substantially as described.

3. In an apparatus of the character described, the combination of a casing comprising spaced walls, and providing a chamber, and a passageway leading thereto; a removable closure for said passageway; a filling of granular material between said walls; a grate dividing said chamber and providing a fire box; a receptacle in the chamber immediately beneath the grate and open at said grate, the walls of said receptacle and the chamber constructed to provide a tortuous passageway; a flue located in the recep-

tacle and opening into said tortuous passageway; a hood mounted on the flue within the receptacle and providing communication with the receptacle; a pipe outside of said casing communicating with said tortuous passageway; and a tube projecting into said pipe and adapted to direct the heat from a flame therein, substantially as described.

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ANTHONY CHIKANCEFF.

Witnesses:

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