

May 27, 1952

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2,598,067

KITCHEN CABINET INCINERATOR

Filed Sept. 3, 1946

4 Sheets-Sheet 1

FIG. 1.

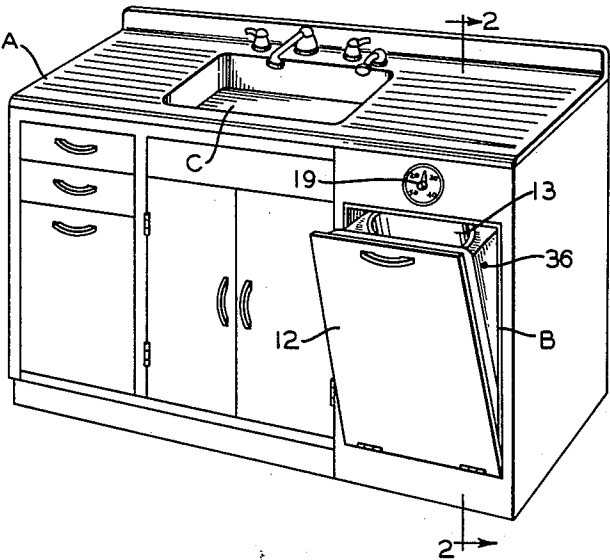
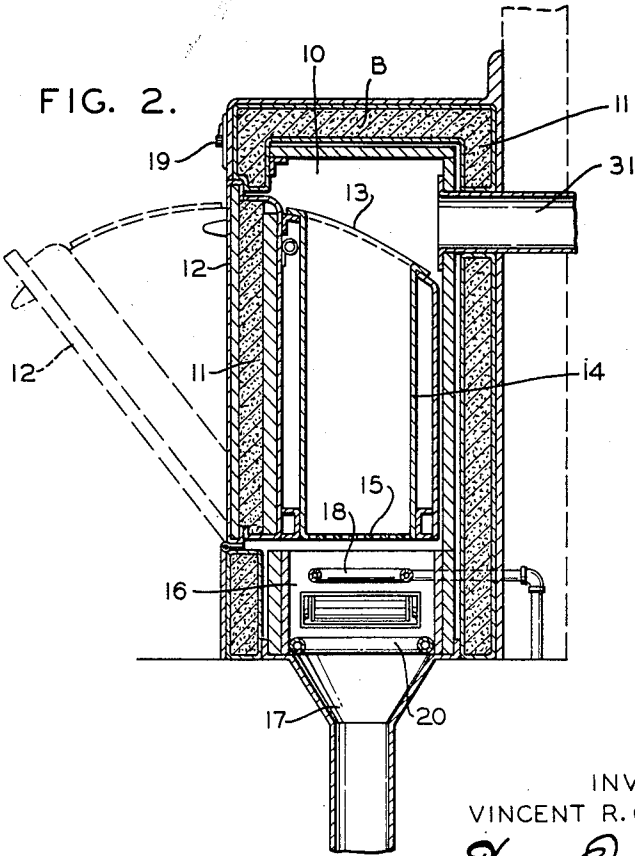


FIG. 2.



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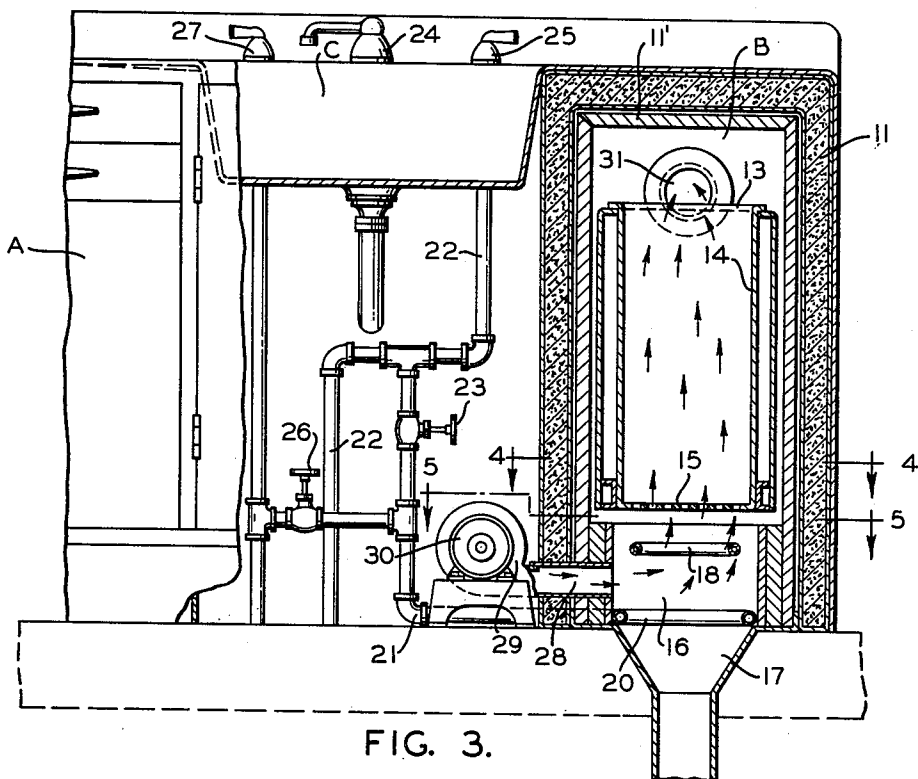


FIG. 3.

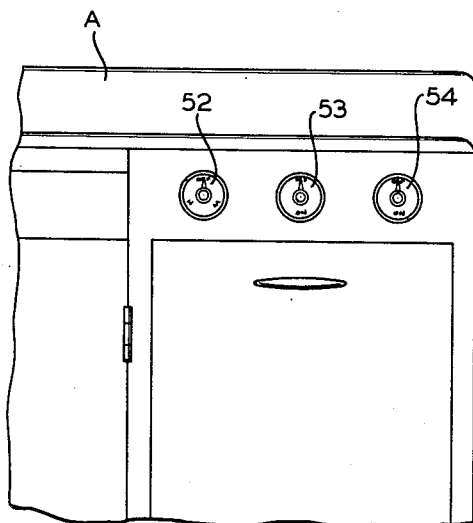


FIG. 10.

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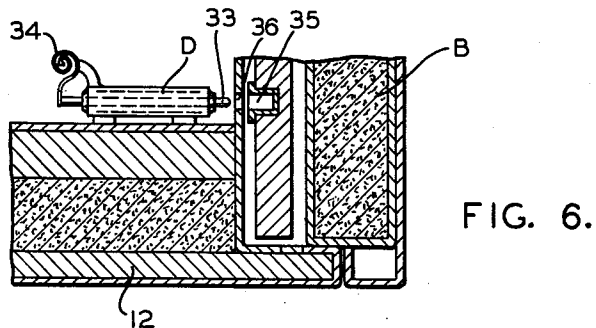
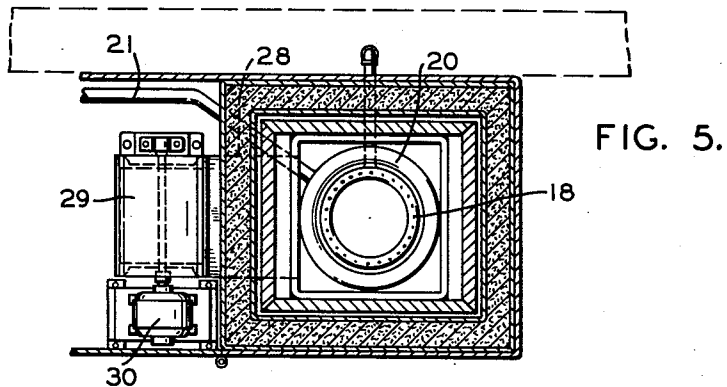
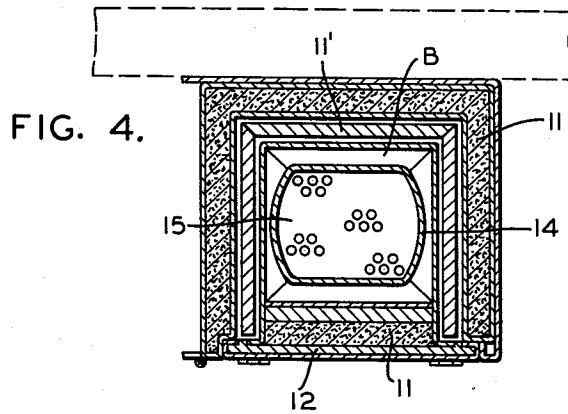
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FIG. 7.

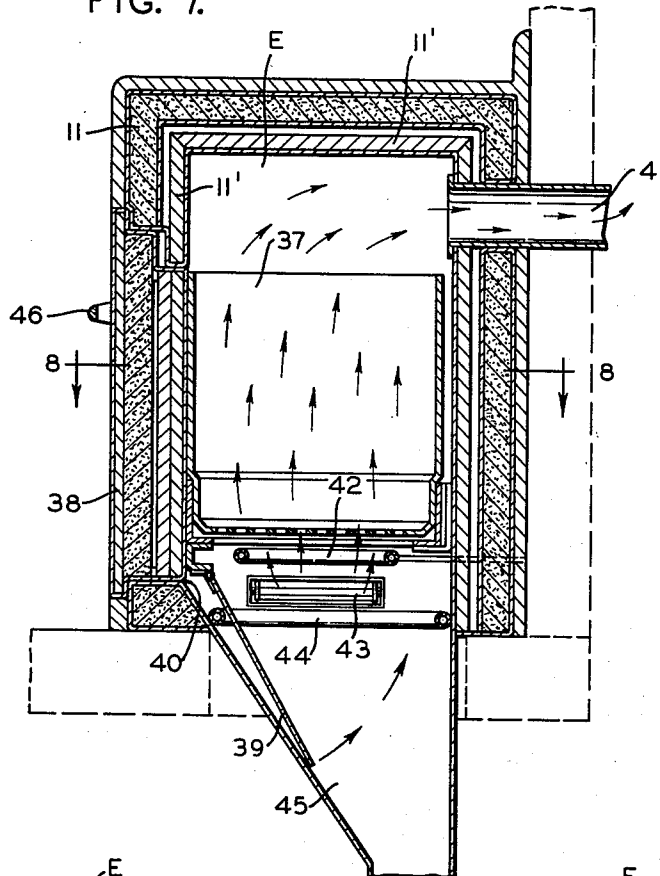


FIG. 8.

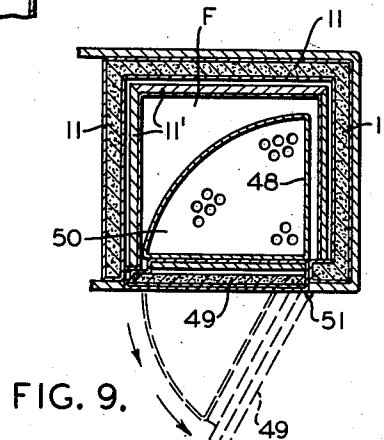
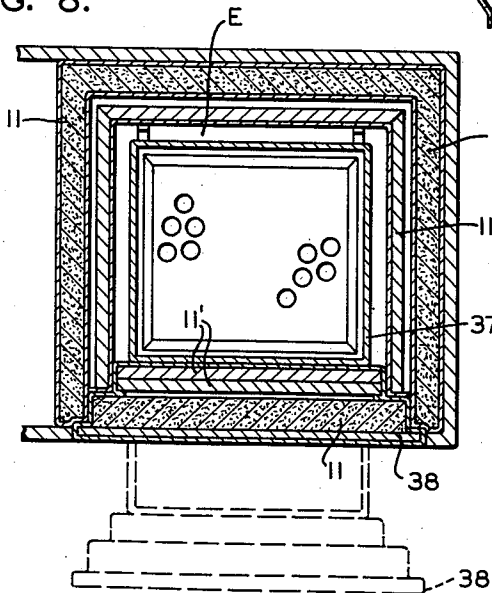


FIG. 9.

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KITCHEN CABINET INCINERATOR

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Application September 3, 1946, Serial No. 694,473

7 Claims. (Cl. 110-18)

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My invention relates to a cabinet incinerator primarily adapted to be located in the kitchen of a dwelling and as being formed as part of the kitchen cabinet so as to provide in a convenient place a waste disposal compartment in the form of an incinerator so that waste such as garbage, paper and other non-metallic or glass waste material can be disposed of by consuming the same with fire to reduce it to ashes.

A feature resides in providing within the kitchen cabinet adjacent to and forming part of the kitchen sink cabinet and the heat insulated compartment in which a heating element such as a gas burner or an electric heating element may be provided so as to form such heat within the cabinet to reduce the waste, garbage or other material to ashes to be disposed of such refuse which is ordinarily accumulated in a household and particularly in the kitchen.

It is also a feature to provide a disposal unit adjacent the sink which is in the form of an incinerator and which is formed with a removable waste basket member which can be lifted out of the cabinet as desired and thus can be replaced as necessary if desired.

My kitchen cabinet incinerator includes a receptor for the waste material which is connected with the sewer disposal system and wherein the receptor is connected with the water system of the building in which the incinerator is located so that when the garbage or waste material has been reduced to ashes and the incinerator flame is extinguished a valve will operate to flush water into the bottom of the receptor and in turn wash the ashes from the receptor down into the sewage disposal system. Thus I provide a kitchen cabinet incinerator as having a unique means of completely disposing garbage, refuse and other material to be incinerated and after it has been reduced to ashes it is washed down into the sewage system of the building; thereby completely cleansing the receptor making it ready to receive more material which is to be disposed of.

A further object of my invention resides in providing a blower located in the compartment in the cabinet next to the waste incinerator compartment for blowing air under the gas ring or heating element and through the incinerator to an outside flue to carry away any fumes or gases given off from the incinerator in its operation.

A feature of primary importance resides in providing an incinerator compartment built into the kitchen sink cabinet and which compartment is completely insulated on all sides includ-

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ing the top and bottom to completely confine the heat of the incinerator within the compartment. In this manner the incinerator is fireproof so as to overcome any danger of overheating in the kitchen or room where the same is located.

My incinerator cabinet may be constructed to receive a conventional sink and may incorporate conventional cabinet drawers.

It is also a feature to provide a thermostatic control lock for the incinerator door which will lock the door while the incinerator is burning the waste material, thus keeping the fumes, smoke or soot from the incinerator within the incinerator cabinet until the ashes have been washed into the sewer by means of the water connection from the sink to the incinerator bowl which receives the ashes.

The grate in the basket of my incinerator may be cleansed of ashes by gently rocking the incinerator door open and shut. Thus my incinerator cabinet requires no shaking grates or ash receiving drawers which have to be operated and cleansed. This simplifies the construction of my incinerator and by means of the flushing operation, my ash receiving bowl in the bottom of the incinerator will be thoroughly cleansed. The water flushing means may be operated to dampen the ashes in the incinerator before the door is shaken, thus eliminating any dust from the ashes coming out into the room.

My incinerator cabinet is conveniently located to the sink and workboard of the kitchen cabinet wherein the incinerator is located and the incinerator may be made with various types of doors. One type of door for my incinerator resides in the swinging form wherein the top of the door swings outwardly into the room and the bottom of the door is hinged. The garbage and waste disposal basket is removably attached to the door and swings with it into open position.

Another type of my incinerator door resides in a swinging form where the door is hinged on to its vertical side and the other side is free to swing out into the room. This type of door also carries a triangular shaped basket for receiving the material to be disposed.

Still another type of door for my kitchen cabinet incinerator resides in a pull type drawer with a door. A heavy insulated door front forms the front wall of the drawer.

My incinerator cabinet may be formed with an automatic closing bottom which is adapted to close the bottom of the receptacle of the incinerator when the door is open to prevent ashes

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from dropping on to the kitchen floor when the incinerator is opened. This bottom closure is particularly adapted to the drawer type of incinerator and also to the cabinet where the door is hinged on to the side.

In the drawings forming part of my specification:

Figure 1 illustrates a perspective view of a form of my kitchen cabinet incinerator.

Figure 2 is a vertical section through the cabinet on the line 2—2 of Figure 1.

Figure 3 is a front section through the incinerator cabinet with a portion of the front kitchen cabinet broken away to illustrate the parts under the sink.

Figure 4 is a section on the line 4—4 of Figure 3.

Figure 5 is a section on the line 5—5 of Figure 3.

Figure 6 is a sectional detail diagrammatically illustrating a thermostatically control locking means for the door of my incinerator.

Figure 7 is a side sectional elevation of another form of my incinerator cabinet.

Figure 8 is a section on the line 8—8 of Figure 7 showing the pull-out drawer door in dotted outline.

Figure 9 is a similar section of Figure 8 showing a form of the door for the front of the incinerator cabinet which is hinged on one of its vertical edges to allow the door to swing outwardly into the room.

Figure 10 is a partial front view of the incinerator showing an arrangement for the controls thereof.

My kitchen cabinet incinerator A includes an incinerator compartment built into one side of the kitchen cabinet as illustrated in Figure 1. The incinerator compartment B includes a compartment having an incinerator chamber 10 which is surrounded with heavy heat insulation 11 so that the heat in the incinerator will not escape to the outer walls of the cabinet A. The cabinet A includes a sink C having water connections from any suitable source of supply to the faucet of the sink.

The incinerator compartment B is formed with a tiltable door 12. The door is also heavily insulated by the insulating material 11. The door 12 is adapted to swing outward from the cabinet A to expose the open top 13 of the refuse receiving basket 14 which is mounted on the swinging door 11 in a manner so it may be removed when desired. The bottom 15 of the basket is in the form of a grate so that ashes accumulated in the basket may fall down into the bottom of the bowl 16.

The bowl 16 of the incinerator B is connected by a large outlet 17 to the sewer system of the building in which the incinerator cabinet A is located. In the bowl 16 I provide a gas or electric burner 18 which may be regulated in any suitable manner and may be controlled by timeclock or mechanism 19 illustrated in Figure 1 and located on the front of the cabinet A. I have not illustrated the detail of the timeclock or control mechanism 19, which may be of any suitable construction.

In the base of the bowl 16, I provide a water flushing unit or ring 20 which is connected by the pipe 21 to the water supply 22 and which is controlled by the valve 23. The pipe 22 leads to the water faucet 24 of the sink C and is controlled by the valve 25. The pipe 21 leading to the flushing ring 20 may also be connected by

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the valve 26 to the hot water line of the water system of the sink cabinet A. The hot water valve 27 for the faucet 24 is located on the opposite side of the sink to the valve 25.

I provide an air inlet passageway 28 which is adapted to receive air from the blower 29 which is operated by the motor 30 located in the base of the sink cabinet A. By this means, air may be blown into the bottom or bowl 16 of the incinerator compartment B to provide a forced draft when it is desired. I also provide a smoke or gas outlet 31 in the top of the incinerator compartment B which leads to the outside of the building and which permits gas and smoke to pass to the outside when the incinerator compartment B is in operation to consume any refuse which has been placed in the same.

An important feature of my invention resides in the combination of the kitchen cabinet incinerator A where the incinerator compartment B is located convenient to the sink C thus the housewife may readily discharge any garbage or refuse which is to be burned into the basket 14 by opening the door 12. The convenient location of the compartment B to the sink C will be readily apparent owing to the fact that it saves time and steps for the housewife in disposing garbage and other refuse which ordinarily is burned and disposed of in an incinerator remotely located.

The burner 18 may be operated when it is desired to ignite the material in the basket 14 and when the burner 18 is in operation it is desirable that the door 12 be locked closed. Therefore, I provide a thermostatic control lock D. The lock D is illustrated in Figure 6 in sectional detail. The lock D may be of any form. A lock bolt 33 is operated by a thermostatic coil 34 to drive the free end of the bolt 33 into the recess 35 in the wall of the compartment B so that when the incinerator compartment B is in operation the heat in the compartment will automatically lock the door 12 closed. The bolt 33 passes through the opening 36 in the side of the hinged door 12 as illustrated in Figures 1 and 6.

When the incinerator compartment unit has been operated to consume all of the refuse in the basket 14, the ashes will fall through the grate bottom 15 and into the bowl 16. The door 12 can be slightly rocked to jar the ashes out of the basket into the bowl 16 if it is desired and the bowl 16 may be washed clean of the ashes by turning on one of the valves 23 or 26 and flushing hot or cold water into the bowl, washing the ashes down into the sewer through the passageway 17. In this manner I provide a kitchen cabinet incinerator conveniently located for use of the housewife. It is also a feature to provide an incinerator built into the cabinet of the sink and which is heavily insulated so that the heat of the incinerator, when it is operating to consume the refuse therein, will not escape into the room where the cabinet C is located. The blower 29 will also carry any fumes or gases in the incinerator compartment B out through the flue 31 from the air circulating system provided in my incinerator and may also be used to dry out any moisture in the garbage or refuse waste in the basket 14. The basket 14 is removable so that it may be replaced or entirely removed anytime by opening the door 12 and lifting the basket 14 off its supporting connection on the inner face of the door 12. The air circulating means will also dry out the bowl 16 of the in-

incinerator whenever it is desired by operating the motor 30.

Figure 4 illustrates the section through the bottom of Figure 3 to indicate the basket 14 within the compartment B, also showing the heavy insulation 11 with an inner liner insulating 11' which insures the heat sealing of the incinerator compartment B.

Figure 5 is a section on the line 5-5 of Figure 3 lower than the section 4-4 and illustrates the burner 18 which also shows the air circulating fan 29 which is operated by the motor 30. These parts are all conveniently located and concealed within the cabinet A thus providing a streamlined attractive cabinet A wherein the incinerator is concealed as well as the connecting parts and valves such as 23 and 26.

In Figure 7 I provide an alternate method of access to the basket 37 inside the compartment E by using a door which pulls outward like a drawer drawing the basket 37 with it.

Figure 7 shows the drawer 38 and the basket 37 in section. As the drawer 38 is pulled outward, a hinged bottom damper 39 lifts upward closing the bottom of the drawer as a result of pulling outward on the handle 46 of the drawer 38. The hinged bottom is hinged just below the bottom of the basket and adjacent to the inner face of the compartment drawer. As the drawer is pulled outward the shoulder 49 upon which the bottom of the door front rests automatically forces the hinged bottom 39 above mentioned upward closing off the bottom of the drawer. As the drawer is pulled from the compartment to the limits of its travel, the basket 37 may be removed. Near the top of the back wall of the inside of the compartment is an outlet 41 for allowing smoke or gas to be passed to the outside of the building.

Directly below the basket in the compartment, resting on the compartment floor is an electric heater 42 for heating the incinerator compartment E to consume any refuse in the basket. Entering the side of the compartment E below the heater 42 is an air inlet 43 leading from the blower 29 which provides a forced draft when motor 30 is in operation. Directly below the entrance of the air inlet into the compartment is located a water flushing ring 44 which is adapted to flush the ashes into the outlet 45 leading to the sewer system of the building.

The compartment E is insulated by the heavy insulation 11 and the inner insulation or ceramic wall 11'. The insulation 11 is also formed in the front of the door 38 so that the compartment E is completely insulated to prevent the heat from the incinerator escaping into the room where the same is located. The compartment E is located within the cabinet A in the same manner as the incinerator compartment B is located therein. This places the compartment E wholly within the cabinet A in a convenient location adjacent the sink C.

The electric heater 42 can be of any suitable form. A suitable electric switch for turning the current on to the heater 42 may be located on the front of the cabinet A in the same position as the timer 19 is located and the switch may include a timer for turning the heat off the heater 42 after a predetermined time, however, I have not shown the switch for the heater 42 in the drawings.

The bottom of the basket 37 is perforated or formed with a grate so that the ashes in the basket may sift through to the outlet 45. The

drawer can be slightly vibrated to shake the ashes into the outlet passage 45 as it is desired. The damper-like bottom 39 closes automatically as the drawer 38 is pulled out and thus any ashes remaining in the basket 37 will be confined in the bottom of the drawer, however, when the drawer is pushed into operative position the hinged bottom 39 will fall down into the outlet passageway 45 and will assist in jarring the ashes free from the basket 37 causing them to fall into the outlet passageway 45.

In Figure 9 I have illustrated another form of my incinerator such as F which is also adapted to be located in the same position in the cabinet A as the incinerator compartment B is located, thus positioning the incinerator F close to the sink C and conveniently located in relation thereto.

The incinerator F is insulated with the heavy insulating material 11 and the liner insulation which forms the walls of the incinerator F and which is similar to the fireproof material 11' heretofore described.

The incinerator F shown in Figure 9 employs a triangular shaped basket 48 which is secured to the swinging door 49 and which is formed with a grate-like bottom 50 through which the ashes from the basket may fall into the outlet opening 45. The door 49 is hinged along its vertical edge 51 and thus the door is adapted to swing outwardly with its free edge as illustrated in dotted outline in Figure 9.

It will be apparent that I have illustrated different types of incinerator compartments such as B, E and F. The first type B having a swinging door 12 which is hinged along its bottom edge. The second type E provides a drawer 38 which can be pulled out to fully expose the basket 37 and the third type resides in a swinging door 49 which carries the triangular-like basket 48 on its inner face and when the door is opened the basket is fully exposed and may be removed. In all three types of my incinerators the baskets 13, 37 and 48 respectively are removable. It is also a feature of my incinerator to provide virtually an air tight compartment excepting for the inlet air passageway for a forced draft and an outlet passageway for the smoke and gases to escape to the atmosphere outside the building in which the incinerator is located. The flushing means is of importance because it keeps the incinerator clean and thereby provides a sanitary means of disposing garbage and refuse which can be burned without dust or ashes from the same entering the kitchen or room in which the incinerator is located.

A feature of my invention resides in providing a unitary sink incinerator cabinet which may be moved as a unit to any position where it is desired to be operated in a building. This unitary sink incinerator cabinet is connected as a whole to place the incinerator in the cabinet which receives the sink and is positioned directly adjacent to the sink so that the garbage from the sink may be passed directly into the incinerator and wherein the water connections for flushing the sink will also be a part of the flushing system for flushing the ashes from the incinerator into the sewer. Therefore the sink cabinet and incinerator unit are inseparable with cooperating parts which function together to provide a complete unit cabinet which may be moved from place to place or positioned wherever it is desired in a building where there is a supply of water and

a sewer connection together with a source of fuel to supply heat to the incinerator and a smoke outlet.

The unitary incinerator cabinet may include a cabinet wherein a water, fuel and source of air is provided and wherein the incinerator compartment formed in the cabinet is completely insulated with a heavy wall of insulation completely surrounding the fire chamber of the incinerator. In a cabinet of this kind, the same may be portable so that it may be connected with a sewage system and the water supply system of any building. The unit may even include an oil burner having a fuel supply stored in the cabinet and adapted to supply the burner with fuel to heat the incinerator compartment and reduce the garbage or waste placed therein to ashes.

Figure 10 is a front view of the incinerator cabinet showing the location of the controls for the flushing unit and burner positioned inside the incinerator compartment and the control for the air ventilating supply.

In the drawing in Figure 10, I have illustrated an incinerator cabinet with the controls conveniently located on the cabinet so that the housewife may readily operate anyone of the controls from the outside of the cabinet to turn on the burner, or to flush the ashes out of the incinerator and to turn on the air fan to cause air to be circulated through the incinerator compartment. These controls are respectively the air control 52, the water supply control for the flushing unit 53, and the burner control 54, anyone of which may be operated separately anytime from a position outside the incinerator cabinet thereby making it convenient for the housewife to regulate the operation of my incinerator cabinet or these controls may be located inside the kitchen cabinet adjacent to the incinerator.

Heretofore incinerators were placed in remote positions of the building and were inconveniently located. My incinerator kitchen cabinet is streamlined and attractively built so that it is formed as an integral part with the cabinet A in which the sink C is located. This added convenience for the housewife will be readily apparent. To accomplish these results it is essential that the incinerator compartment be located in close proximity to the sink and water connections thereof and thus the incinerator forms a part of the kitchen sink cabinet. My incinerator could not be successfully operated without being a part of the water system of the sink. With the modern kitchens that are being installed at the present time, my kitchen cabinet incinerator and sink add a convenience heretofore unavailable.

The blower for the air to the incinerator may be controlled by a stack control (not illustrated in the drawings) which operates to start and stop the blower by the temperature in the stack. Thus the blower can be set to operate with the stack control so that when the temperature rises in the stack (smoke outlet) the blower will start to operate and when the temperature in the stack lowers the blower may be shut off.

The incinerator unit is adapted to operate any place in the building where a supply of water is located together with a drain for the ashes and where heat may be obtained for burning the material in the incinerator. While it is preferred to have the incinerator as a part of the kitchen cabinet sink, it is obvious that the sink can be omitted but it is necessary to have a supply of water together with a switch drain and a smoke

outlet together with a fuel supply for the burner of the incinerator. It will be apparent that where fire brick insulating means is desired that the same may be replaced or built with fire proof ceramic material instead of fire brick so that a smooth uninterrupted wall of fire proof ceramic material may line the entire incinerator compartment; in fact such material is preferred to fire brick because there are no cracks.

I claim:

1. In a cabinet incinerator, an incinerator chamber, a mass of heat insulating material surrounding said incinerator chamber, a door providing a means of entrance to the interior of said chamber and having a refuse basket with openings in the lower end thereof removably mounted on the inner surface, said basket substantially filling the interior of said chamber, a burner disposed in proximity to said refuse basket, a refuse outlet located in the bottom of said chamber and a water supply means so located with respect to said basket and said refuse outlet that means is provided for flushing ashes of incinerated material from said chamber through said refuse outlet.

2. A cabinet incinerator comprising, an insulated incinerator chamber, an insulated door on said chamber, said door hinged on the lower horizontal edge, a basket having openings in the lower portion thereof providing means for containing refuse removably attached to the inside of said door, said door being adapted to swing outward at the top and downward from said cabinet and means for incinerating refuse contained in said basket.

3. A cabinet incinerator comprising, an insulated incinerator chamber, an insulated door hinged on the lower horizontal edge thereof, a thermostatically controlled lock on the door of said chamber, said lock having thermostatic means responsive to the temperature within said chamber to automatically lock said door when said incinerator is in operation and to release said door when said incinerator is not in operation, said door being adapted to swing outward at its top from said cabinet, a basket removably attached to the inside of said door and a burner operatively associated with said basket to burn refuse contained therein.

4. An incinerator cabinet comprising, an incinerator chamber, a tiltable door on said chamber having a basket mounted on the inner side thereof for receiving material to be incinerated, a burner in said incinerator operatively associated with said basket, for incinerating said material, a refuse outlet located in the bottom of said incinerator chamber and a water flushing device so disposed with respect to said basket and said refuse outlet that means is provided for flushing ashes of said incinerated material into the refuse outlet.

5. A rectangular incinerator cabinet for incinerating refuse positioned in close proximity to a sink and water-supply thereof, an entrance door for refuse forming virtually the entire front wall of said incinerator cabinet, burner means in said cabinet, water flushing means for washing away the ashes from said cabinet, and a refuse basket removably supported on the inner side of said door providing means for holding refuse material during the incinerating process and operatively associated with said burner whereby said refuse in said basket is ignited by said burner.

6. An incinerator cabinet including an insu-

lated incinerator compartment, an insulated door hinged on the front of said cabinet, a refuse container having openings in the bottom thereof and substantially filling said chamber and removably positioned on the inner surface of said door, a burner ring positioned below said container, gas supply means for said burner ring, a water flushing ring positioned below said burner ring, a sewer outlet below said flushing ring, and a water supply means for said flushing ring.

7. A cabinet incinerator, a water connection thereto from a source of supply, means forming an incinerator compartment built into one side of said cabinet, a smoke and gas outlet leading from said incinerator compartment, means for forcing air into and from said incinerator compartment for burning refuse, a burner in said incinerator compartment, water flushing means in said incinerator compartment adapted to be connected to said water connection, a door hingedly mounted on said incinerator compartment, a basket removably mounted on the inner side of said door and being operatively associated with said burner whereby said burner incinerates refuse contained therein, and an outlet leading

from said incinerator providing means whereby ashes may be washed when said flushing means is operated.

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