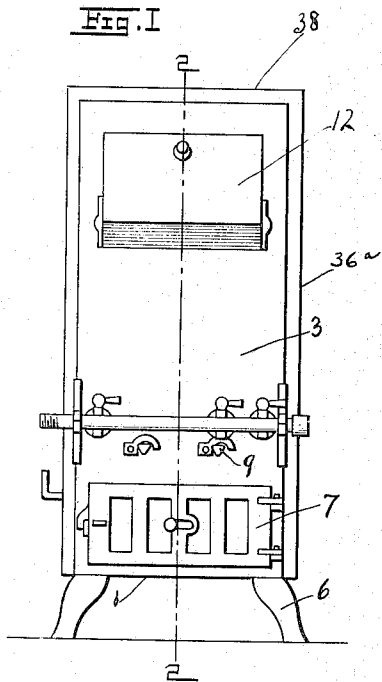
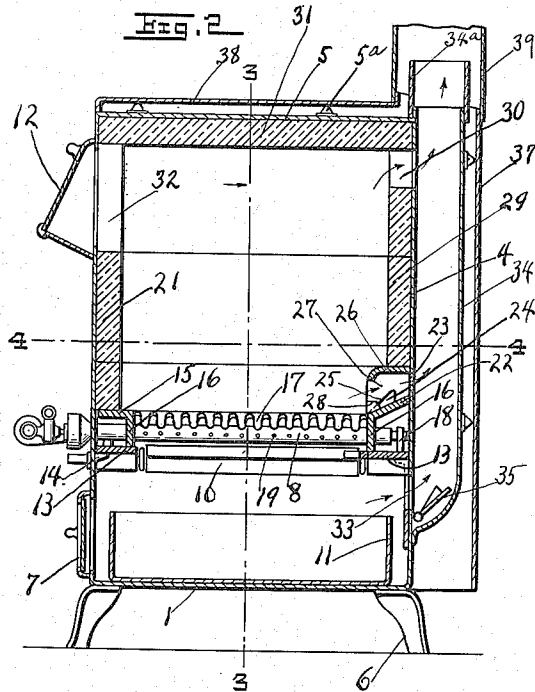
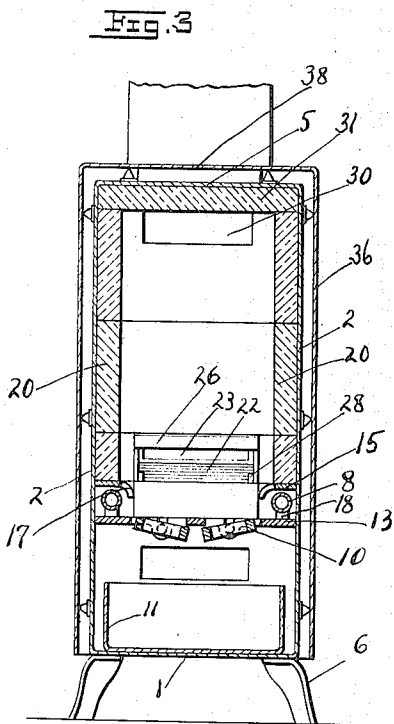
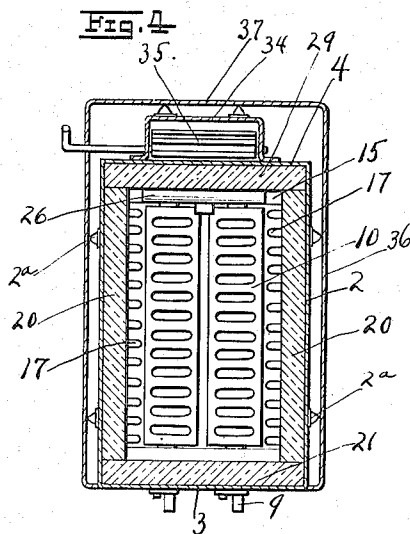


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INCINERATOR.
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1,194,385.

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INCINERATOR.

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To all whom it may concern:

Be it known that I, HARRY J. HOOVER, a citizen of the United States, and a resident of the city of Norwood, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Incinerators, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification.

My invention relates to incinerators for burning garbage and the like. In stoves of this character, the great difficulty is in providing for the complete quick burning up of wet matter such as garbage, and in doing so to make no odor and no undue heat in the room where it is burning.

It is the object of this invention to provide an incinerator in which the burners are protected from becoming clogged and in which there are adequate draft passages in the firepot to prevent suffocation of the flame employed in the burning.

It is also an object to jacket the entire body of the incinerator so that odors and heat are kept within the body and do not escape into the room, and generally it is desired to provide a gas, garbage burning stove in which the parts are simple, durable and easily assembled.

These objects and other advantages to be noted are accomplished by that certain construction and arrangement of parts to be hereinafter more specifically pointed out and claimed.

In the drawing, Figure 1 is a front elevation of the device. Fig. 2 is a longitudinal vertical section thereof, on the lines 2, 2, of Fig. 1. Fig. 3 is a central vertical cross section of the device, on the line 3, 3, of Fig. 2. Fig. 4 is a horizontal section taken above the grate, on the lines 4, 4, of Fig. 2.

The main body of the stove is formed of a sheet iron shell having a base 1, sides 2, 2, a front 3, a rear 4, and a top 5. This body is mounted on legs 6, 6, and at the front has an ash door 7. The front has also suitable apertures for tubular gas burners 8, 8, one at each side of the stove, and has apertures for the rock shafts 9 of the grate bars 10. Beneath the grate is the ash tray 11, and above

the grate is the door 12 in which the garbage is to be fed.

The grate bars of the device are pivotally mounted on a frame 13 which is set into the body on brackets 14, 14, spaced around the inside walls thereof. Over this frame is set another frame 15, which has depending flanges 16 at the front and rear to seat on the frame for the grate bars. Along the side of this frame are depending toothed members 17 which form a protecting grating for the tubular gas burners 8, 8. These burners are inserted through the front of the stove and rest at the rear in brackets 18 formed on the grate bar frame. Thus the burners which have their gas outlets 19 spaced along their entire length are to be easily assembled in the stove and are constantly protected from becoming clogged by garbage working into the holes when it is fed down on the grate. This protection is an important portion of my invention and goes a long way to preventing a smothering of the fire during incineration. The tubular burner pipes are mounted, one on one side and one on the other of the grate, and the protecting grating extends out over the top of the burner, so that although the flame from the burner is directed out over the grate bars, still the burners are entirely underneath the extending piece of the protecting grate.

On top of the frame 15 are set slabs of firebrick 20, 20, at the sides, and 21 at the front. At the rear of the frame 15 is an extended portion 22, which leads to a draft opening 23 in the rear of the stove body, and this extension has side teeth 24 to engage the notches 25 in the hood member 26. This hood member has a depending portion 27 at each side in which these notches are located, and which seats directly over the extended portion 22 and protects the fue opening 23 from becoming clogged with garbage. Lugs 28, 28, on the extension 22, engage on the inside of the sides 27 of the hood member, thereby holding the hood member firmly in place. On top of the hood member is then set a slab of fire clay 29, which terminates just below the upper draft opening 30 in the stove body. Directly be-

neath the top of the stove body is set another slab of fire brick 31, thereby leaving a fire pot completely protected by fire clay excepting for the space 32 opposite the feed door and flue openings 30 and 23 above the grate bars. Below the grate bars is a third flue opening 33, so that there is no chance of the flame becoming smothered by the garbage closing up the flue openings. The flue opening below the grate will never be clogged. The flue opening directly above the grate is protected by the hood member, and the flue opening near the top of the stove body completes a draft system which will take care of all contingencies. These draft openings communicate with a rear flue 34, mounted on the back of the stove, and a base damper 35 for the lower draft opening is mounted in the base of the flue.

Resting on side and top lugs 2^a and 5^a respectively on the stove body, and covering the stove, except at the front, is a sheet iron casing having sides 36, 36, a back 37 and a top 38. The sides are turned in at the front at 36^a, exposing the stove front. The top seats on lugs on the top of the stove body, and the sides and rear terminate at the top of the legs leaving a complete air space around the stove body, with a base opening therefor all the way around. At the upper rear central portion of this outer body is formed a large flue 39, into which is led the pipe 34^a on the flue 34 of the stove body already mentioned. The air rushes up inside of the casing between it and the stove body, and serves to carry away all hot air and odors which may escape from the stove body itself so as to entirely prevent their escaping into the room. This outer body also insulates the stove from the room, in view of the fact that an air space is left between the outer shell and the sheet iron body of the stove.

The various features of my new incinerator seem now apparent, and it is not believed to be necessary to describe the means adopted to connect gas to the tubular burners, as this may be done in any desired manner, the important point in the burner mounting being that the burners are inserted through apertures in the front of the stove and held on brackets at the rear of the grate bar frame, so that they may be readily removed without taking the stove to pieces.

Mention has not been made of any equivalent structures which would change mechanically my device without departing from the spirit of my invention, but it is not desired by this omission to limit the scope of the claims that follow to exact structure where such is not claimed.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:—

1. In an incinerator, a fire pot, a plate set

below said pot and carrying grate bars, tubular gas burners held on said plate immediately above it so as to lie above the supporting surface of the grate bars, and said burners adapted to project a jet of gas substantially parallel with the grate, a frame set on the plate, and a protecting grating comprising downwardly curving teeth extending from the sides of said frame, so as to lie over the burners, for the purpose described.

2. In an incinerator, a fire pot, lateral grate bars below said fire pot, gas burners at the base of the pot and above the garbage supporting surface of said grate bars, a fire clay lining for the fire pot, a flue at the rear of the incinerator and outside of the lining, and openings into said flue below the gas burners and grate bars and directly above the gas burners and grate bars.

3. In an incinerator, a fire pot, grate bars below the said fire pot, gas burners above said grate bars, a flue at the rear of the incinerator, and openings into said flue located below the grate bars and directly above the grate bars, and means for protecting the opening above the grate bars from becoming clogged with garbage.

4. In an incinerator, a fire pot, grate bars below the said fire pot, gas burners above said grate bars, a flue at the rear of the incinerator, and openings into said flue located below the grate bars and directly above the grate bars, and a structure closed except at the front over said latter opening, said structure having a hood depending over the opening, for the purpose described.

5. In an incinerator, a fire pot, grate bars therefor, tubular gas burners set over the grate bars, and a frame set over the grate bars and burners, said frame having an extending toothed grating at the sides to protect the burners, an extending plate at the rear of the frame communicating without, and a draft opening in the incinerator, and a hood set over the said plate, for protecting the opening from becoming clogged with garbage.

6. In an incinerator, a plate with grate bars pivotally supported therein, a frame set on the plate and spaced away therefrom so as to form chambers along each side of the plate, said chambers terminating at the front of the incinerator, openings in front of the incinerator for inserting gas burners into said chambers, and means in said chambers for removably supporting a pair of gas burners, for the purpose described.

7. In an incinerator, a plate with grate bars pivotally supported therein, a frame set on the plate and spaced away therefrom so as to form chambers along each side of the plate, said frame having depending teeth along the sides to protect the openings of said chambers, and means in said chambers

for removably supporting a pair of gas burners, for the purpose described.

8. In an incinerator, a set of grate bars, a frame over said grate bars and extending
5 into the inside of the incinerator, a flue opening at one end thereof, with a projecting member on said frame extending

over the opening, and slabs of fire brick built up on said frame on all sides of the incinerator, and fire brick set over the top 10 of the side fire bricks, to form a completely lined incinerator.

HARRY J. HOOVER.