

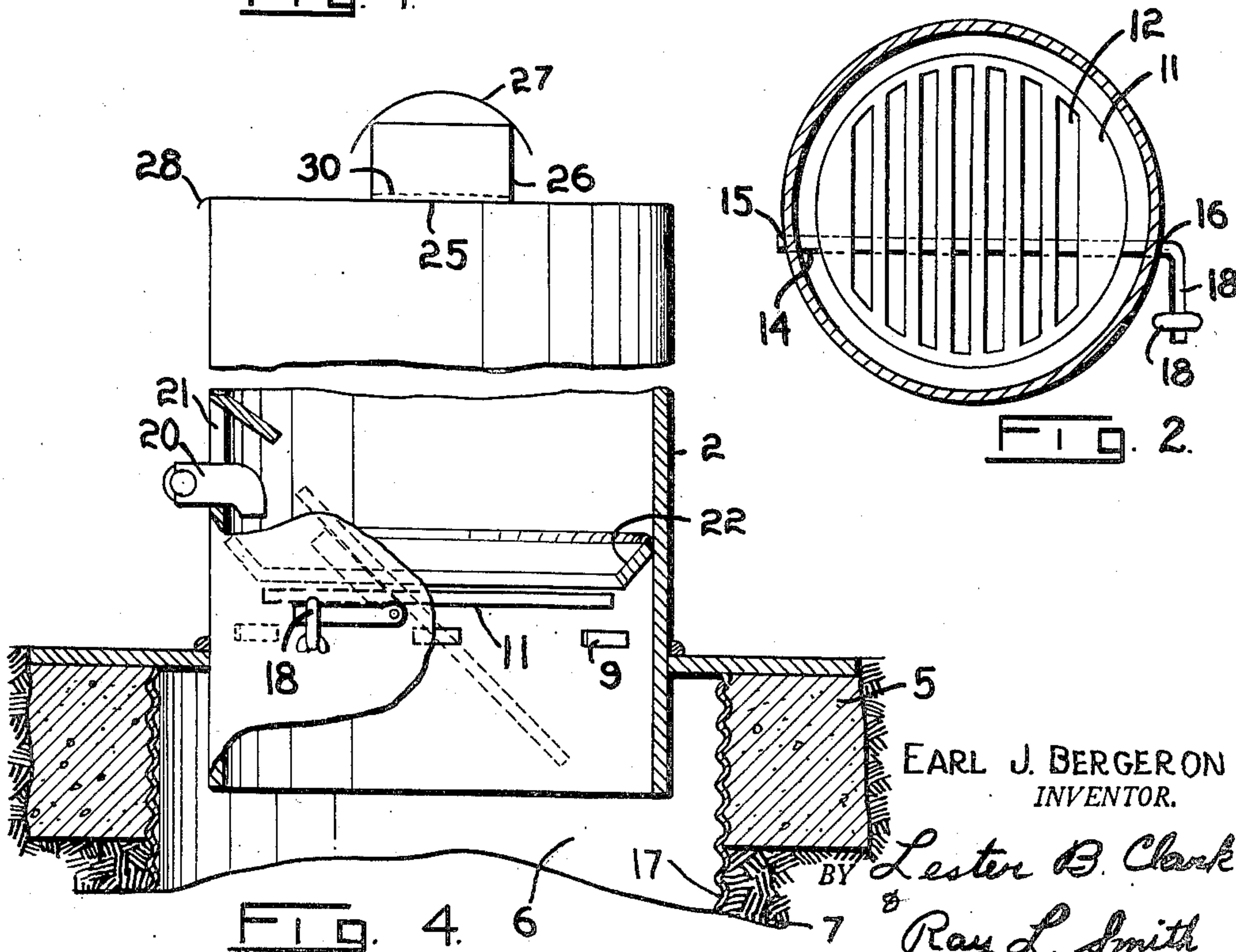
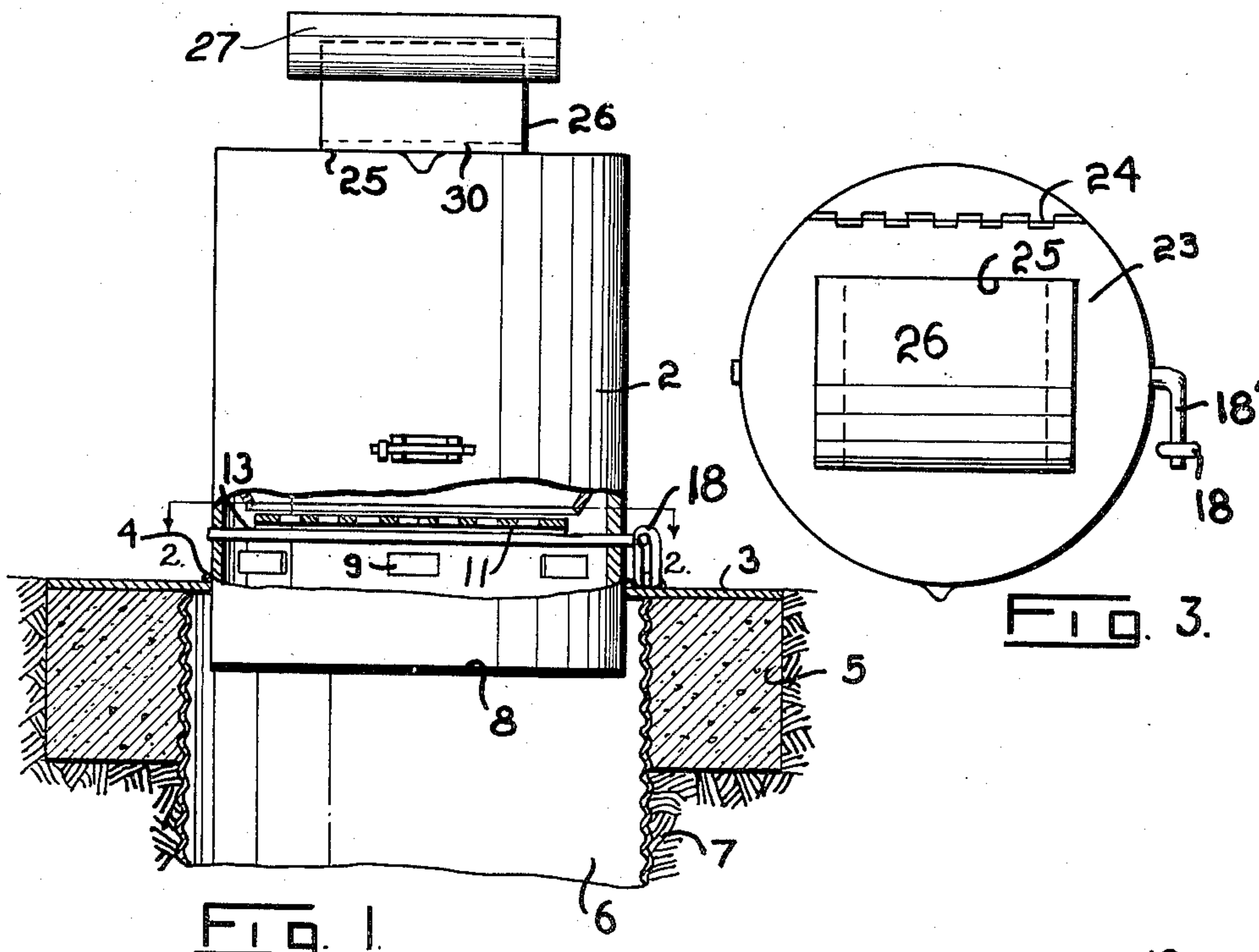
March 6, 1951

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2,543,756

INCINERATOR POSITIONED ABOVE A HOLE IN THE EARTH

Filed Feb. 13, 1947



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## UNITED STATES PATENT OFFICE

2,543,756

INCINERATOR POSITIONED ABOVE A HOLE  
IN THE EARTH

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Application February 13, 1947, Serial No. 728,367

3 Claims. (Cl. 110—18)

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The invention relates to incinerators, and more particularly to an incinerator adapted to permanently dispose of all types of refuse.

An object of the invention is to provide an incinerator of simple construction, but efficient and durable in use.

Another object of the invention is to provide an incinerator construction which permanently disposes of garbage, metal containers, bottles, and other trash.

Another object is to provide an incinerator positioned above a hole in the earth wherein the grate in such incinerator is normally retained transversely of the incinerator, but which is adapted to tilt to drop the ashes thereon into the hole therebeneath.

A further object is to provide an incinerator which is positioned on the surface of the earth, but which has a portion of such container extending downwardly below the surface of the earth.

A still further object of the invention is to provide an incinerator for positioning over a metal lined hole in the earth, which incinerator is adapted to receive refuse for burning and then to discard the ashes and remains from such burning into the hole beneath such incinerator.

A further object of the invention is to provide an incinerator having a body opening at one end into a hole in the ground, and a hinged covered end with a screened hole therethrough to insure proper ventilation of the incinerator, and at the same time preventing the sparks from the incinerator from escaping.

Other and further objects and advantages of the invention will become more fully apparent from a consideration of the following drawings wherein:

Fig. 1 is a front plan view showing the incinerator in position over the hole in the earth, portions thereof being in section;

Fig. 2 is a sectional view taken on the line 2—2 of Fig. 1, and showing the preferred construction of the grate and a means of supporting the grate on a cross bar therebeneath;

Fig. 3 is a top plan view of the incinerator; and

Fig. 4 is a side elevation of the incinerator with a portion thereof in section to more clearly bring out the interior construction of the incinerator.

As illustrated in the drawings, the incinerator is composed of a body 2 shown as being of a hollow cylindrical shape with a flange member 3 about the lower end thereof. This flange may be an integral part of the incinerator or it may be formed of a separate piece of material and

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connected to the incinerator by suitable means such as welds 4. This flange member is adapted to rest on the cement slab 5 or annulus about the periphery of the top of the hole 6 in the ground 7. It seems obvious that this cement slab will have an opening therein to receive the downwardly extending portion 8 of the incinerator.

Adjacent the flange member 3 are a plurality of holes 9 in the body 2 of the incinerator which serve as a means for air entry into the incinerator so as to insure complete combustion of the refuse placed therein. Such combustion is further enhanced by the construction shown as comprising a grate 11 positioned above the air holes 9. This grate is provided with suitable air ports such as the slots 12 so that the air, as it enters the incinerator from the holes 9, will pass upwardly through the grate, providing sufficient oxygen to burn the refuse therein.

The grate is positioned transversely of the incinerator body 2 and is connected by suitable means such as the welds 13 to a cross bar 14 which is in turn pivoted at 15 and 16 in the sides of the body 2.

It is to be noted that cross bar 14 is mounted off center in the body 2 so that after the trash in the incinerator has been burned, the hook or link 18 on the exterior of the housing 2 may be disengaged from the handle 18' whereby the unbalanced weight of the grate and residue or ashes causes it to tilt and thereby dump the ashes off the grate, and into the hole 6. The hole 6 is bored to a suitable depth, and is preferably provided with a suitable liner 17. While this liner may be of various materials, it has been found that 16-gauge corrugated metal is the preferred liner for this hole, and extends upwardly a distance to serve as a form when casting the concrete 5 at the mouth of the hole.

A burner 20, positioned in the hole 21 on the body 2 of the incinerator, extends inwardly into the incinerator. This burner is preferably directed downwardly as shown towards the grate 11 so that when it is lighted the refuse on the grate 11 will be subjected to the direct flame from the burner. It is understood that a plurality of burners may be provided about the burner, and preferably are.

A baffle plate 22 on the inner periphery of the body 2 extends inwardly and downwardly to direct the refuse upon the grate 11 and also to shield the burner or burners 20 from the refuse.

A cover 23 on the upper end of the body 22 is hinged at 24 and is provided with an opening 25 therethrough which has the chimney or flue 26



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extending upwardly thereabout. Obviously the chimney 26 may be integral with the top 23 or the top 23 may be formed, and the chimney 26 attached about the opening 25 by suitable means such as welds.

A cover 27 of any desired shape, is attached to the upper end of the chimney 26 so as to exhaust smoke from the incinerator while at the same time serving as a baffle to prevent the entry of water into the incinerator.

An ash screen 30 is positioned in or over the opening 25 to catch ashes that may tend to float upwardly with the rising smoke. It seems obvious that the provision of this screen enables the operator to retain all live ashes within the incinerator.

Suitable means such as a lip 28, extending outwardly from the cover 23, serve as a means whereby the cover may be lifted for depositing refuse in the incinerator for burning.

In operation, refuse to be disposed of will be dumped into the incinerator by grasping lip 28 and raising the cover 23 of the incinerator. After depositing such refuse therein, the burner 20 may be lighted.

As a matter of practical experience, it has been found that the heat generated in the incinerator serves to break any glass containers deposited with the refuse, and metal containers suffer a substantial loss in their strength due to heating and distortion. These portions of broken glass and oxidized metal containers fall into the hole along with the rest of the refuse and it has been found that after a period of time their deterioration and disintegration into fragmentary particles will be greatly advanced.

A hole some ten to twenty feet deep will serve as a receptacle for the remains from the incinerator for a period of five to ten years before it is necessary to move the incinerator to a new location and put into further use.

Broadly the invention contemplates an incinerator to be positioned over a hole in the earth, which incinerator is adapted to provide for permanent disposal of all trash and refuse placed therein.

The invention claimed is:

1. In an incinerator adapted to be positioned on the surface of the earth above a hole, a vertically disposed hollow cylindrical body open at the ends having a plurality of openings substantially in transverse alignment about the lower end of the body, a flange member about the body, said flange being of a larger diameter than the hole in the earth, thereby forming a support surface for the incinerator over the hole in the earth, said body having a portion thereof extending below

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said flange member and into the hole beneath the incinerator, a grate in said body above the holes in said body and connected to a cross bar, said cross bar extending laterally of said grate and transverse of said body and pivoted in said body, said grate normally retained in transverse relation to said body but tiltable to dump ashes into the hole beneath the incinerator, and a burner positioned in said body above said grate.

2. An incinerator adapted to be positioned axially above a hole in the surface of the earth comprising, a vertically disposed hollow body open at its ends, a hinged cover on the upper open end, said cover having an opening therethrough with a chimney thereabout, said chimney having opposed side walls, a chimney cap formed of a curved plate secured to opposed side walls of said chimney, a flange member about said body, said flange member being of a larger diameter than the hole in the earth beneath the incinerator so as to present a support surface for the incinerator, said body having a portion thereof extending below said flange member and into the hole, there being a plurality of holes in said body above said flange member, a grate in said body above said holes, and a transverse cross bar in said body connected to said grate, said cross bar being pivoted at its ends so as to normally retain said grate in a transverse position of said body but being rotatable so as to tilt said grate, and a burner in said body above said grate.

3. In an incinerator adapted to be positioned axially above a hole in earth, a hollow body open at its ends, a flange member about said body and of a larger diameter than the hole below the incinerator, and a portion of said body adapted to extend downwardly into the hole, said body having a hinged cover at its upper end with an opening therein, a chimney about said opening and a cover mounted in spaced relation over said chimney, a tiltable grate in said body, and at least one burner in said body above said grate.

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