Aug. 28, 1956 G. V. THOMPSON 2,760,451

INCINERATOR

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Fig. 1

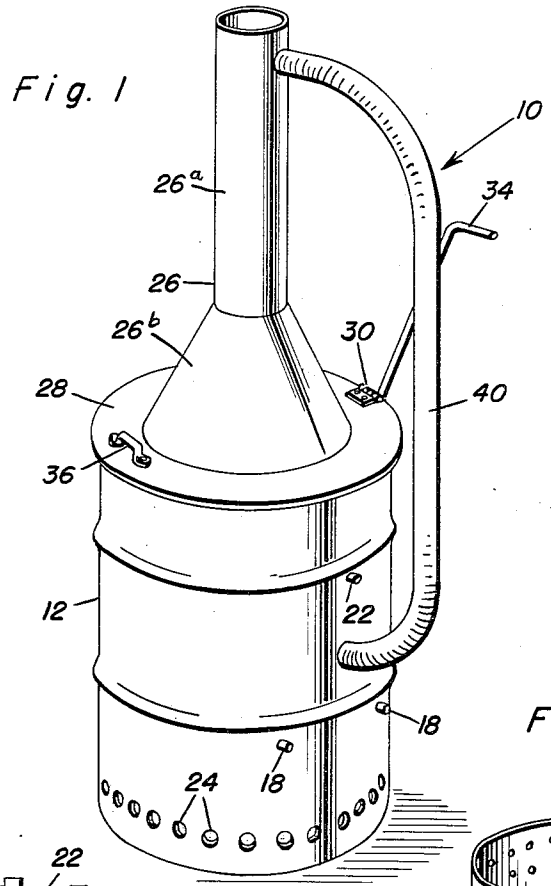


Fig. 3

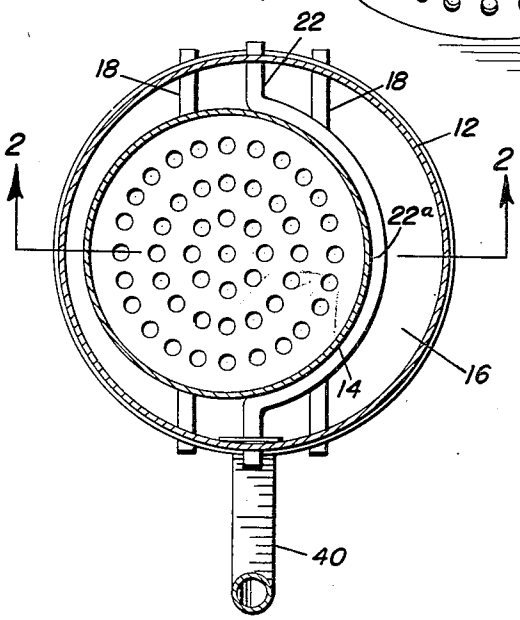
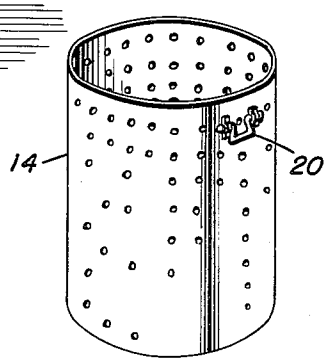


Fig. 5



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Fig. 2

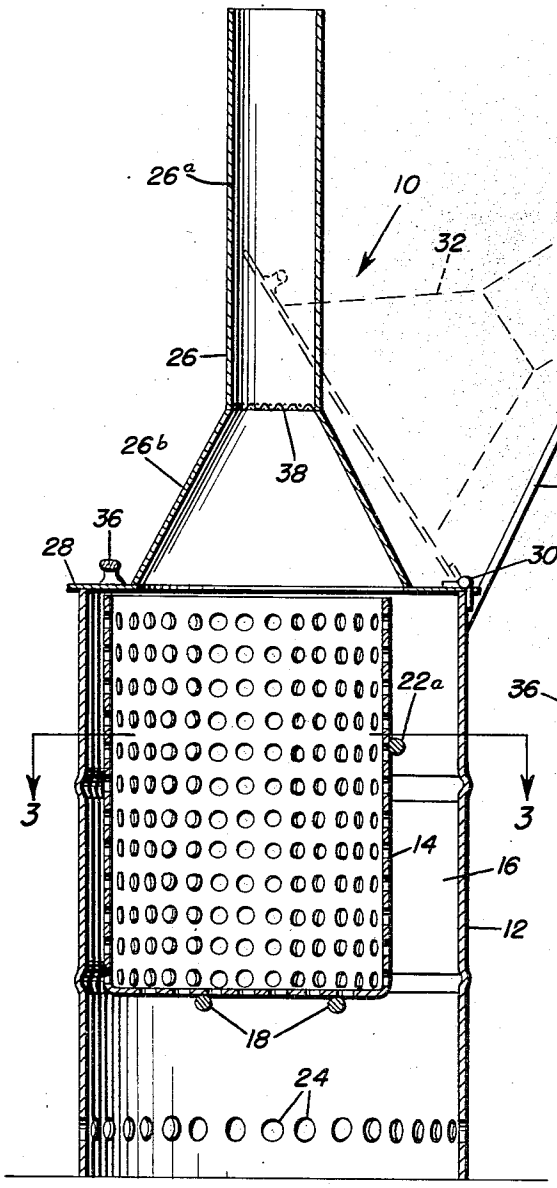
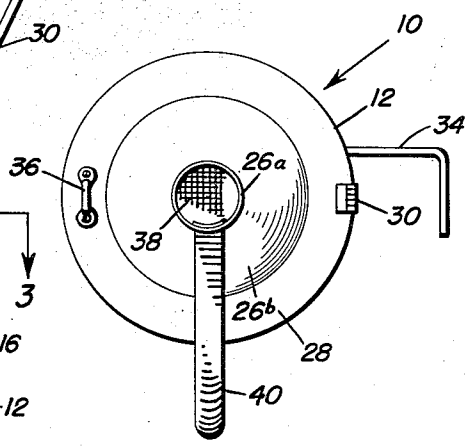


Fig. 4



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INCINERATOR

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Application November 21, 1952, Serial No. 321,915

6 Claims. (Cl. 110—18)

This invention relates to new and useful improvements and structural refinements in incinerators, particularly incinerators of the domestic variety which are used outdoors for burning trash, and the principal object of the invention is to provide an incinerator with smoke eliminating means so that the smoke is not objectionable to neighbors of the home where the incinerator is used.

The above object is achieved by utilizing hot air passing through the smoke stack of the incinerator for supporting or assisting combustion in the incinerator, thereby resulting in combustion at higher temperatures with very little smoke, if any, results.

Some of the advantages of the invention reside in its simplicity of construction, its efficient operation and its adaptability to expeditious and economical manufacture.

With the above more important objects and features in view and such other objects and features as may become apparent as this specification proceeds, the invention consists essentially of the arrangement and construction of parts as illustrated in the accompanying drawings, in which:

Figure 1 is a perspective view of the invention;

Figure 2 is a vertical sectional view thereof, the same being taken substantially in the plane of the line 2—2 in Figure 3;

Figure 3 is a horizontal sectional view, taken substantially in the plane of the line 3—3 in Figure 2;

Figure 4 is a top plan view of the invention on a reduced scale; and,

Figure 5 is a perspective view of the fire pot or burner pot used in the invention.

Like characters of reference are employed to designate like parts in the specification and throughout the several views.

Referring now to the accompanying drawings in detail, the invention consists of an incinerator which is designated generally by the reference character **10** and embodies in its construction a vertically elongated, substantially cylindrical jacket **12** accommodating a foraminous, cylindrical burner pot **14**, the latter being disposed eccentrically in the jacket and in spaced relation therefrom, so as to afford a chamber **16** between the jacket and the pot, as is best shown in Figures 2 and 3.

A plurality of horizontal bars **18** extend transversely through the jacket **12** and support the pot **14** which is removably positioned thereon, the pot **14** preferably being provided with suitable handles **20** so that it may be conveniently installed and removed.

In addition, a rod **22** extends transversely over the jacket **12** above the bars **18** and is provided with a substantially semicircular intermediate portion **22***a*, the latter extending partly around the circumference of the pot **14** and affording a seat for the pot, so as to prevent the pot from shifting on the bars **18**.

The bottom portion of the jacket **12** is provided with a pluraltiy of air inlet apertures or openings **24**, as shown.

A smoke stack **26** surmounts the jacket **12** and includes an upper, tubular portion **26***a* and a lower frusto-conical base portion **26***b*, the latter having an out-turned flange **28** at the base thereof.

This flange is connected by a hinge **30** to the upper edge of the jacket **12**, so that the entire smoke stack **26** may be swung to one side as indicated by the dotted lines **32** in Figure 2. In that position of the smoke stack, the interior of the jacket **12** becomes accessible for the purpose of installing or removing the pot **14**. The smoke stack **26** is supported in its laterally swung position by means of an angulated brace **34** which is rigidly secured to the jacket **12** and extends upwardly and outwardly therefrom, susbstantially as shown.

A handle **36** is provided on the flange **28** of the smoke stack for the purpose of operating the same, and also, a suitable screen **38** is provided in the smoke stack between the portions **26***a* and **26***b*.

Finally, the invention contemplates the provision of a duct **40** which is in the form of a flexible tube and extends downwardly from an upper portion of the smoke stack **26** to an intermediate portion of the jacket **12**, wherein it communicates with the chamber **16**.

The flexibility of the conduit or duct **40**, of course, will permit the smoke stack **26** to be swung laterally as shown in Figure 2, at **32**, and when the apparatus is in operation, hot air passing through the smoke stack **26** will be drawn through the duct **40** into the chamber **16** and will assist the combustion in the fire pot **14** so that the combustion will take place at a comparatively higher temperature and little smoke, if any, will result.

After repeatedly experimenting with the invention, I have found that when dry material is being burned, no smoke results therefrom. However, if the material being burned is somewhat damp or moist, a little amount of smoke will be produced. This small amount of smoke, of course, is not objectionable, since it is far less than would otherwise result if the material were burned in a conventional incinerator.

It is believed that the advantages and use of the invention will be clearly apparent from the foregoing disclosure and accordingly, further description thereof at this point is deemed unnecessary.

What is claimed as new is as follows:

1. In an incinerator, the combination of a vertically elongated jacket, a foraminous burner pot mounted in said jacket and spaced therefrom to provide a chamber between the jacket and the pot, an upwardly extending smoke stack including a frusto-conical base portion hinged to the upper portion of said jacket at one side thereof to swing over and with its base in registry with the upper end of said jacket whereby to form a closure for the upper end of the jacket, and a flexible conduit in communication with the interior of and extending downwardly from the upper end portion of said smoke stack and communicating with said chamber.

2. In an incinerator, the combination of a vertically elongated jacket, a foraminous burner pot mounted in said jacket and spaced therefrom to provide a chamber between the jacket and the pot, an upwardly extending smoke stack including a frusto-conical base portion hinged to the upper portion of said jacket at one side thereof to swing over and with its base in registry with the upper end of said jacket whereby to form a closure for the upper end of the jacket, and a flexible conduit in communication with the interior of and extending downwardly from the upper end portion of said smoke stack and communicating with said chamber, and means for removably supporting said pot in said jacket.

3. In an incinerator, the combination of a vertically elongated jacket, a foraminous burner pot mounted in said jacket and spaced therefrom to provide a chamber between the jacket and the pot, an upwardly extending smoke stack including a frusto-conical base portion hinged

to the upper portion of said jacket at one side thereof to swing over and with its base in registry with the upper end of said jacket whereby to form a closure for the upper end of the jacket and a flexible conduit in communication with the interior of and extending downwardly from the upper end portion of said smoke stack and communicating with said chamber, the lower portion of said jacket being provided with air inlet openings.

4. In an incinerator, the combination of a vertically elongated jacket, a foraminous burner pot mounted in said jacket and spaced therefrom to provide a chamber between the jacket and the pot, an upwardly extending smoke stack including a frusto-conical base portion hinged to the upper portion of said jacket at one side thereof to swing over and with its base in registry with the upper end of said jacket whereby to form a closure for the upper end of the jacket, and a flexible conduit in communication with the interior of and extending downwardly from the upper end portion of said smoke stack and communicating with said chamber, and horizontal bars extending transversely of said jacket, said pot being removably positioned on said bars.

5. In an incinerator, the combination of a vertically elongated jacket, a foraminous burner pot mounted in said jacket and spaced therefrom to provide a chamber between the jacket and the pot, an upwardly extending smoke stack including a frusto-conical base portion hinged to the upper portion of said jacket at one side thereof to swing over and with its base in registry with the upper end of said jacket whereby to form a closure for the upper end of the jacket, and a flexible conduit in communication with the interior of and extending downwardly from the upper end portion of said smoke stack and communicating with said chamber, and a prop attached to the exterior of said jacket to engage said smoke stack when it is pivoted outwardly away from the jacket about its hinged connection.

6. In an incinerator, the combination of a vertically elongated jacket, a foraminous burner pot mounted in said jacket and spaced therefrom to provide a chamber between the jacket and the pot, an upwardly extending smoke stack including a frusto-conical base portion hinged to the upper portion of said jacket at one side thereof to swing over and with its base in registry with the upper end of said jacket whereby to form a closure for the upper end of the jacket, and a flexible conduit in communication with the interior of and extending downwardly from the upper end portion of said smoke stack and communicating with said chamber, and a cross piece having ends mounted in said jacket and including a central portion engaging a portion of the periphery of said burner pot and maintaining said pot in spaced relation to said jacket.

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