March 24, 1936. D. KORACH 2,035,167

REFUSE INCINERATOR

Original Filed March 1, 1933

Fig. 1.

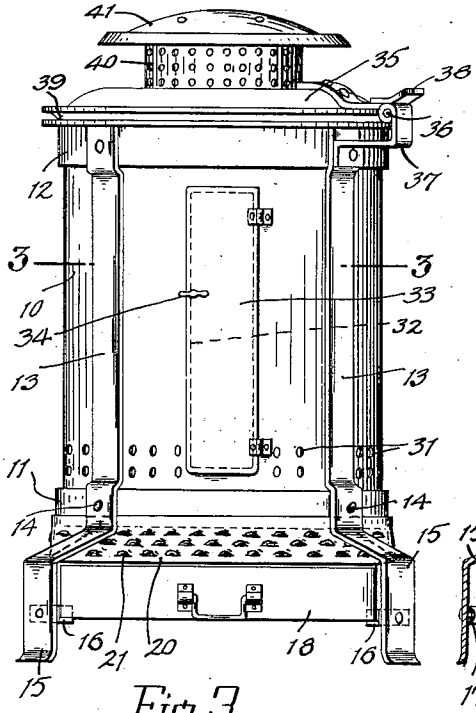


Fig. 2.

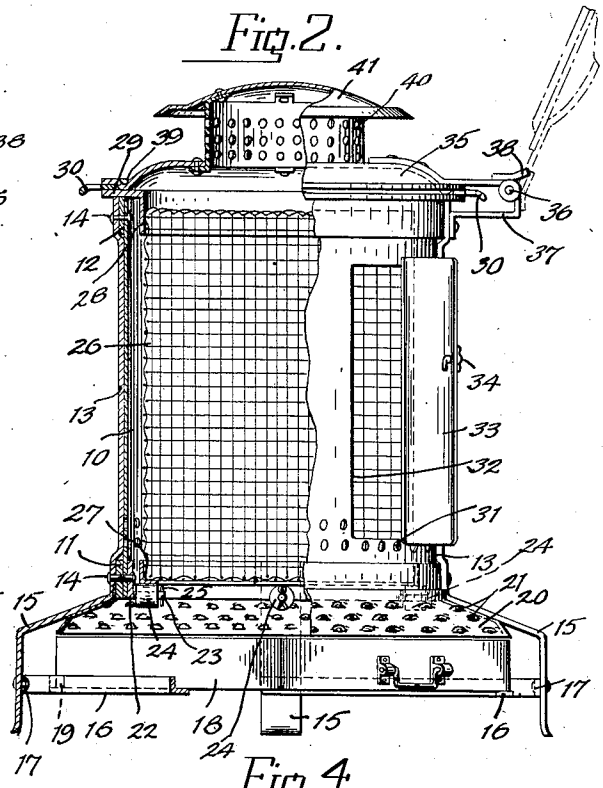


Fig. 3.

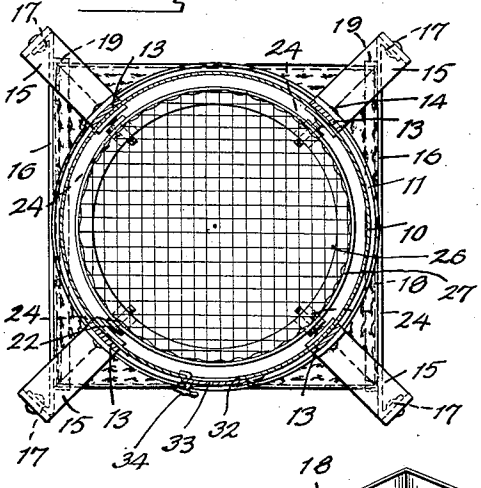
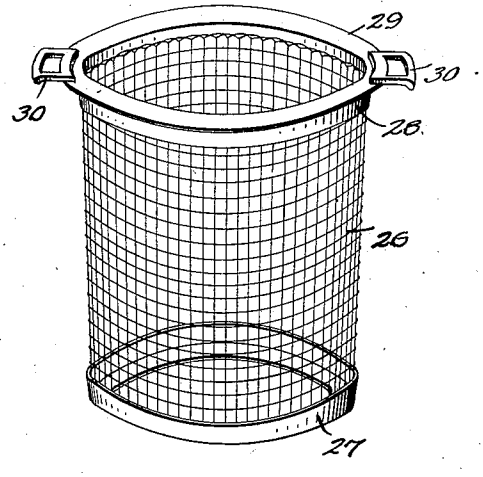


Fig. 4.



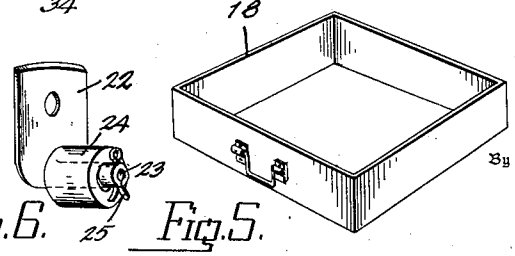


Fig. 6. Fig. 5.

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REFUSE INCINERATOR

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Renewed August 5, 1935

9 Claims. (Cl. 110—18)

The present invention relates to improvements in refuse incinerators, and has for an object to provide a device of this character which will be wind and rain proof, and in which the fire hazard from contact with the incinerator or from flying fragments will be minimized. A further object is to provide a device in which the contents may be conveniently and effectually ignited at any desired point, even though packed tightly, and to this end I propose in the exemplary illustrated embodiment to provide a vertically arranged opening, normally closed by a door, and by means of which the refuse may be ignited at any desired point between the top and bottom of the container, and further to provide means whereby any desired point circumferentially of the container may be brought into position at the door. The refuse may thus be uniformly ignited at a number of evenly distributed points so that the combustion will be complete, uniform and rapid. Other objects are to provide a refuse incinerator which will be attractive in appearance and convenient to use.

With the above and other objects in view, an embodiment of the invention is shown in the accompanying drawing, and this embodiment will be hereinafter more fully described with reference thereto, and the invention will be finally pointed out in the claims.

In the drawing:

Fig. 1 is a side elevation of the refuse incinerator, according to the present exemplary embodiment.

Fig. 2 is a view partially in vertical section and partially in side elevation, and turned 90° from the position as shown in Fig. 1.

Fig. 3 is a horizontal sectional view, taken along the line 3—3 of Fig. 1.

Fig. 4 is a perspective view of the refuse container employed.

Fig. 5 is a perspective view of the ash pan employed.

Fig. 6 is a perspective view of one of the rollers employed for supporting the refuse container.

Similar reference characters indicate corresponding parts throughout the several figures of the drawing.

Referring to the drawing, the refuse incinerator, according to the illustrated exemplary embodiment of the invention comprises a cylindrical casing 10 having reinforcing hoop bands 11 and 12 at its bottom and top edges and a series of vertical reinforcing strips 13, preferably four in number, extending from the top to the bottom edges and secured by rivets 14, which also secure the bands 11 and 12. The strips 13 are extended below the lower end of the casing 10 and are bent outwardly and downwardly to provide outwardly offset supporting legs 15 to support the casing in raised relation to the ground. A pair of parallel angle iron track supports 16—16 are disposed between the legs 15 at opposed sides, being provided at their ends with angularly bent extensions 17 riveted to the legs, and so arranged that the track supports are inwardly of the edges of the legs to provide a clear space for insertion and removal of the ash pan 18. The rear ends of the track supports are bent inwardly, as at 19—19, to act as stops for positioning the ash pan in alignment beneath the refuse container. The supports 16—16, in addition to serving as tracks, for the ash pan, also reinforce and brace the legs 15.

A perforated shield 20 is secured to the lower end of the casing and extends to the upper edge of the pan providing an effective means for preventing dust from being blown out of the pan. The perforations are preferably formed by slitting the material, as at 21, and bending up the upper edge, so as to provide a hooded aperture which will admit air while at the same time preventing rain water from entering the pan.

A series of brackets 22 are riveted interiorly to the lower end of the casing and have cylindrical shaft portions 23 bent at right angles thereto, and upon these portions rollers 24 are rotatably held by cotter-pins 25. The refuse container 26 is rotatably supported upon the rollers 24, and in order to reinforce it at the bottom and provide a proper engaging surface for the rollers a ring 27 of right-angle cross-section is riveted or otherwise suitably secured thereto. A reinforcing band 28 is also secured to the upper end of the container, and is provided with an outwardly bent circumferential flange 29 adapted to extend outwardly of the periphery of the upper end of the casing. Lift and turning handles 30—30 are secured to the flange 29.

A series of draft holes 31 are provided near the lower end of the casing, which augment the main draft supplied at the bottom of the container through the slit apertures 21 of the shield 20.

A narrow vertically arranged opening 32 is provided in the casing which enables the refuse to be ignited at any desired point, so that if it is too firmly packed at the bottom to burn readily it can nevertheless be effectually ignited at one or more points above the bottom, and by turning the container, which readily rotates upon the

rollers 24, the refuse may be ignited at various points circumferentially. A hinged door 33 having a latch 34 normally closes the opening 32.

A cover 35 is hingedly mounted at the upper end of the casing, as at 36, upon an angular bracket 37 extended outwardly to provide a clearance space through which the handles 30—30 may move during turning of the container. The hinge has a stop finger 38 to position the cover in its open position as shown in dot-and-dash lines in Fig. 2. The cover is preferably provided with a circumferential rib 39 disposed inwardly of the handles 30—30 and which rests upon the flange 29 forming an air and water tight seal, this rib at the same time stiffening and reinforcing the cover. A perforated vent chimney 40 is secured in the cover, and is surmounted by an overhanging preferably dome-shaped closure top 41, suitably secured as by riveting, the overhang being sufficient to prevent rain from entering the chimney.

Inasmuch as the wire mesh container is removable and of light weight it can conveniently be filled in the house and transported to the incinerator. When the container is placed in the casing and the cover closed the contents may be effectually burned without issuance of flames therefrom, and without the danger from flying fragments which exists with the usual type of incinerator. The proper draft and ventilation is provided for quick and thorough burning, and because of the weather proof nature of the device it may be used under all kinds of weather conditions. The provision of means for turning all portions of the container into relation with the opening 32 permits ignition of the contents at any desired point or at a number of points, and eliminates the inconvenient and sometimes ineffectual method of igniting at the under side of the container, it being very often impossible to ignite the contents by this method when the container is packed tightly at the bottom.

The external arrangement of the handles 30—30 is not only convenient for inserting and removing the container, but protects them during use of the incinerator from soot and dirt, so that the hands will not be soiled thereby. The handles furthermore permit convenient turning of the container while the cover remains in closed position, the arrangement of the flange 29 maintaining a smoke tight closure at all times and in all positions.

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

1. A refuse incinerator comprising a casing, a cover for said casing, a removable refuse container disposed in said casing rotatable about a vertical axis and including a laterally disposed bottom and vertically disposed sides pervious to air, means carried by said casing rotatably supporting said container, and means extending to the exterior of said casing for manually rotating said container to bring different portions into relation with a given igniting point.

2. A refuse incinerator comprising a casing, a cover for said casing, a removable refuse container disposed in said casing rotatable about a vertical axis and including a laterally disposed bottom and vertically disposed sides pervious to air, means carried by said casing rotatably supporting said container, and means extending radially from said container to the exterior of said casing for manually rotating said container to bring different portions into relation with a given igniting point.

3. A refuse incinerator comprising a casing, a cover for said casing, a removable refuse container disposed in said casing rotatable about a vertical axis and including a laterally disposed bottom and vertically disposed sides pervious to air, roller supports mounted in said casing for rotatably supporting said container, and means for manually turning said container upon said roller supports to bring different portions into relation with a given igniting point.

4. A refuse incinerator comprising a casing having an elongated vertically disposed opening extending for a substantial distance between the top and bottom of said casing, a cover for said casing, a removable refuse container disposed in said casing rotatable about a vertical axis and including a laterally disposed bottom and vertically disposed sides pervious to air, means for supporting said container at any point of rotation and means extending to the exterior of said casing for manually rotating said container to bring any portion into relation with said opening.

5. A refuse incinerator comprising a casing having an elongated vertically disposed opening extending for a substantial distance between the top and bottom of said casing, closure means normally closing said opening, a cover for said casing, a removable refuse container disposed in said casing rotatable about a vertical axis and including a laterally disposed bottom and vertically disposed sides pervious to air, means for supporting said container at any point of rotation, and means extending to the exterior of said casing for manually rotating said container to bring any portion into relation with said opening.

6. A refuse incinerator comprising a casing, a cover for said casing, a removable refuse container disposed in said casing rotatable about a vertical axis, and including a laterally disposed bottom and vertically disposed sides pervious to air, and a laterally extending annular rim secured to the upper end of said container and adapted to extend outwardly of said container between said casing and said cover and constituting sealing means between said casing and cover, and means disposed exteriorly of said casing for rotating said container.

7. A refuse incinerator comprising a casing, a cover for said casing, a removable refuse container disposed in said casing rotatable about a vertical axis and including a laterally disposed bottom and vertically disposed sides pervious to air, a laterally extending annular rim secured to the upper end of said container and adapted to extend outwardly of said container between said casing and said cover and constituting sealing means between said casing and cover, and handle means on said rim for rotating said container, said cover engaging said rim inwardly of said handle means.

8. A refuse incinerator comprising a casing, a cover for said casing, hinge means connecting said cover to said casing, a removable refuse container disposed in said casing rotatable about a vertical axis and including a laterally disposed bottom and vertically disposed sides pervious to air, a laterally extending annular rim secured to the upper end of said container and adapted to extend outwardly of said container between said casing and said cover and constituting sealing means between said casing and cover, and handle means on said rim for manually rotating said container, said hinge means having a clearance

space through which said rim and handle means may move during rotation of said container.

9. A refuse incinerator comprising a cylindrical casing, a cover for said casing, a removable cylindrical refuse container disposed in said casing and including a bottom and sides pervious to air, a rectangular ash pan removably disposed in spaced relation beneath said container and having its corners extending outwardly beyond said cylindrical casing, and a perforated shield secured to the lower end of said casing outwardly extending and downwardly inclined therefrom and closing the space between the lower end of said casing and the edge of said pan.

DEAN KORACH.