Oct. 2, 1934. J. F. PERKY 1,975,403

INCINERATOR

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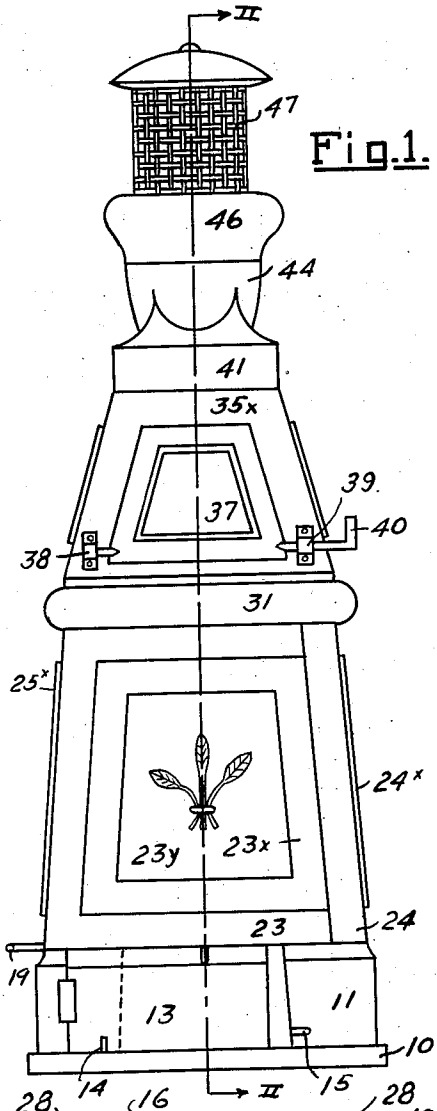

Fig.1.

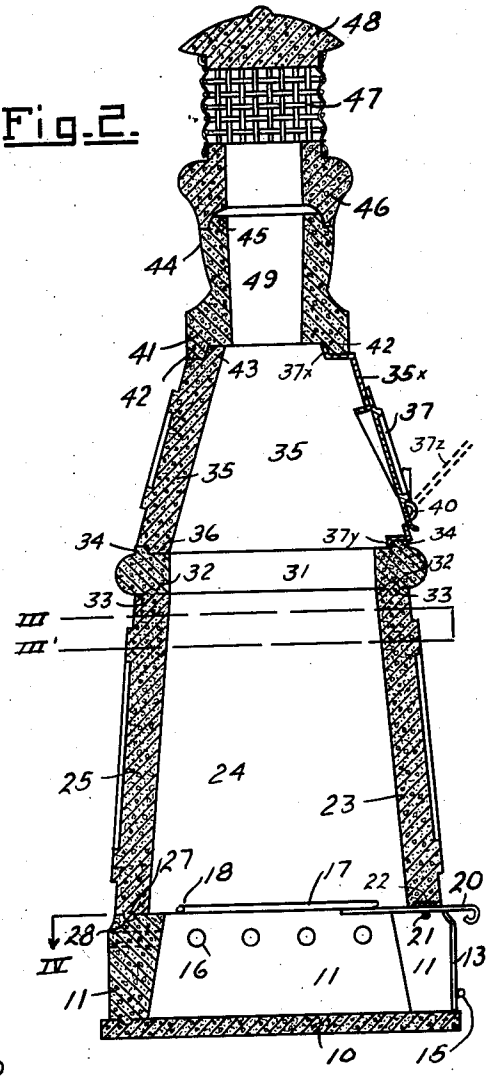

Fig.2.

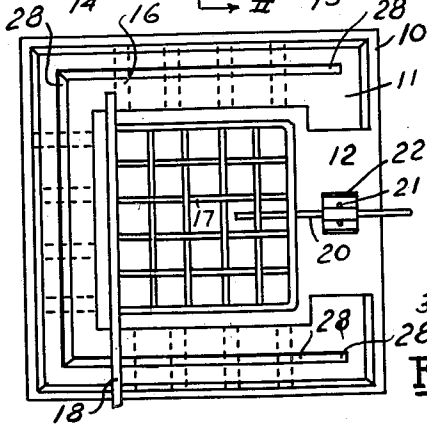

Fig.4.

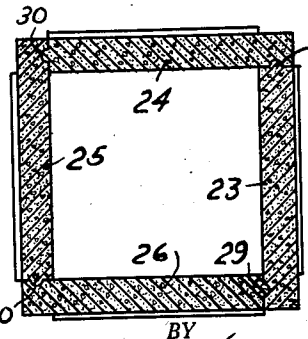

Fig.3.

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INCINERATOR

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2 Claims. (Cl. 110—18)

The invention relates to the manufacture of a preferred form of an incinerator preferably constructed of firebrick, cement, concrete or other material suitable for such purpose and in combination with metallic parts useful in performing desired functions. The invention further relates to ovens and the like and to other uses for which a manufactured article of this class may be readily employed.

One of the main objects of the invention is to fabricate the portions of the incinerator in sections of a preferred type and readily assembled and self sustaining by reason of their interlocking qualities. A further object is to eliminate the hazard of fire and to promote cleanliness in the yard where the incinerator is adapted to be erected.

In the drawing, Fig. 1 shows a front elevation of a typical incinerator as constructed. Fig. 2 is a sectional view taken along the line II—II and looking in the direction of the arrows. Fig. 3 represents a fragmentary portion of the incinerator as cut away intermediate the paired lines III and III' in Fig. 2 to show method of effecting an interlocking relationship between the panels. Fig. 4 represents a top view of the grate mechanism as taken along the sectional line IV in Fig. 2 and looking in the direction of the arrows. Similar numerals of reference indicate corresponding parts throughout all the figures of the drawing.

Referring to the drawing; preferably upon a concrete base 10 I superpose the base wall 11 built in the form of a hollow square and provided with an opening 12. The opening 12 is adjustably closed by means of a sheet metal panel or door 13, and by means of metallic elements such as wires 14 and 15 properly embedded in the base 11 the door 13 is properly supported in any desired position. Horizontally arranged at spaced intervals through the base wall 11 are seen air passages 16 readily cored out after casting the wall 11 of concrete or other suitable substance. These air passages admit air to the incinerator for draft purposes. Upon the base 11 is placed a grate, preferably of metallic rods or similar construction, as illustrated the grate 17 is a hinged device being fabricated integral with a rod like member 18 having a turned end 19 as a handle extending outwardly from the base 11. The forward end of the grate 17 is supported upon the rod 20 slidably sleeved through a wire loop or staple 21 engaged to a metallic plate 22 properly fashioned so as to embed within the front panel section 23 of the incinerator. By pulling outwardly upon the rod 20 the grate 17 hinged at 18 will drop to permit cleaning the trash through the opening 12. Three other side panels 24, 25 and 26 are cast preferably of concrete in a manner similar to the panel 23. It will be noted that the incinerator is tapering in character as clearly seen in Fig. 1; therefore the several panels 23, 24, 25 and 26 are each cast as trapezoid plates, each having a rib 27 cast along the base thereof to drop within and member with the groove 28 cast in the base wall 11. Similarly each panel has a rib 29 cast along one side edge and adapted to member and engage within a groove 30 cast on the inside face of the adjacent assembled plate as will be readily understood. Thus when assembled the four sections of plates are supported first by the base 11 and further by their angular and interlocked relationship to each other and by reason of the hollow square collar section 31 capping the assemblages, it being noted that a groove 32 extends around the base of the section 31 similar in function to the groove 28 and to receive the ribs such as 33 on the top edge of the panel sections 23 to 26 inclusive. For appearance the panels have a raised section such as $23x$, $24x$, and $25x$ enclosing a middle portion such as $23y$ whereupon some figure may be embossed as seen in Fig. 1.

The erection of the composite members comprising the incinerator now continues; the upper surface of the collar section 31 is recessed behind the upwardly extending rim like flange 34 so that three cast panels 35 and iron frame $35x$ may be erected thereupon, each panel being fabricated somewhat as described for the 23 to 26 series so as to interlock along their side edges and with downwardly extending inner rim portions such as 36 fitting behind the flanges 34. The iron door frame panel $35x$ is preferably made of cast iron as seen in Figs. 1 and 2 provided with upwardly and downwardly extending lip flanges $37x$ and $37y$, the lip $37y$ engaging behind the flange 34 as seen. A door 37 is pivotally hinged at 38 and 39 upon the panel section $35x$, the rod 40 as the pivot handle effecting opening and closing functions. It is obvious that an opening of the door to the dotted position $37z$ permits the door to serve as a sloping floor to pass materials within the incinerator for deposit upon the grate section 17 prior to firing operations.

Superposed upon the sections 35 will be noted the square based collar section 41 having a flange like rim around the base thereof to engage around the upper flanges such as 43 as at 42, and at 42 and $37x$. The cap 41 is preferably cylindrical

above the base portion as at 44 and also has an upwardly extending inner flange 45 around which and upon is placed the ring like collar 46. Next about the upper portion of the collar 46 is placed a wire mesh of cylindrical shape shown at 47 and capping the wire screen 47 is shown the cast cap 48 having a lower portion extending down within the screen 47 as shown. The cap members 41 and 46 may be made in one section if desired. It will be noted that these caps collar like in character form a flue 49 for the incinerator and that the heat and smoke pass outwardly through the screen mesh 47 without permitting the draft to carry away burning particles such as would customarily escape and possibly occasion fires.

The entire incinerator is self supporting as assembled but may be made a monolithic structure by cementing the joints during construction. The structure is preferably reinforced concrete slab construction with suitable expansion joints arranged as desired.

Such modifications may be employed as lie within the scope of the appended claims. Having fully described my invention what I now claim as new and desire to secure by Letters Patent is:

1. In an incinerator; a base comprising a wall surrounding an enclosure and a door passage in said wall; air inlets at intervals through said wall; a grate adjustably hinged upon said wall; a groove in the top of said wall and a plurality of trapezoidal paneled sections provided with ribs on their top and bottom faces and with a rib projecting beyond the side edge of one part of each panel and a groove vertically arranged on the inner surface of each panel near the opposite side edge thereof, said sections membering in series with a side rib engaging a groove and with the several base ribs engaging the groove in the base; a collar grooved on its bottom face and engaging the upper ribs of the assembled sections; said collar having an upstanding flange on its outer edge providing an inward recess on the upper face of said collar, a plurality of upper panelled sections and a door frame section, each of trapezoidal character having ribs engaging the recessed portion of the collar element and having groove and ribbed corner membering characteristics; and a flue collar capping and membering with portions on said panel elements; a screen like cylinder capping said flue collar and an upper cap member closing the upper end of the cylinder.

2. In an incinerator, a plurality of horizontally disposed unit collar sections spaced apart in vertical series, a plurality of trapezoidal panels forming a tapering enclosure, each of said panels having ribs on their top and bottom edges and having a rib projecting beyond and from one side edge and having a groove arranged in parallelism with the opposite side edge but at a distance inwardly therefrom on the inner face surface of such panel; said panels membering with the side edge rib of one panel membering within the face groove on its companion panel; said panels being supported by a lower collar and supporting an upper collar in a series of such assemblies, the lowermost collar having air inlets and an ash clean-out door and a grate element mounted on said collar, one of the upper panels having a charging door opening, and a capped cylindrical spark arrester surmounting the upper collar section.

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