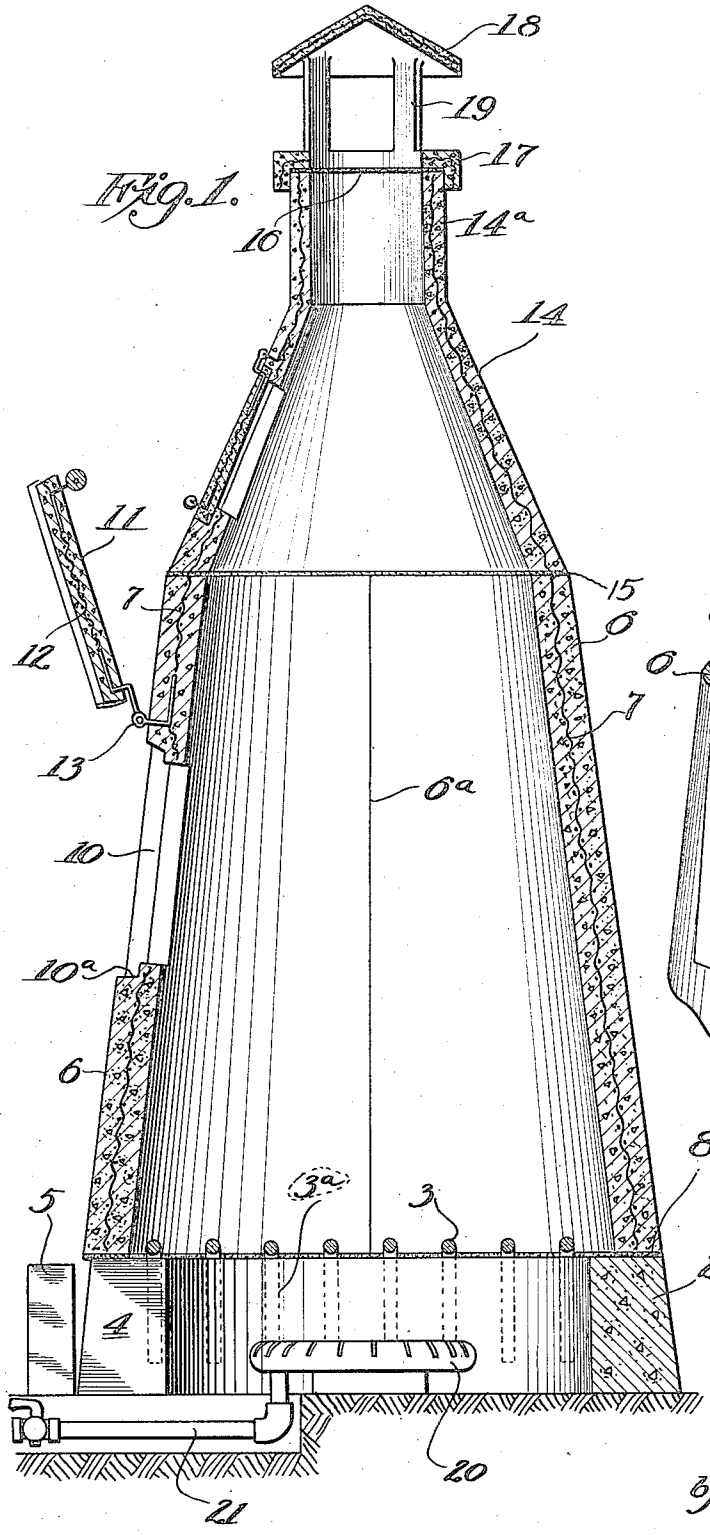
Dec. 18, 1923. 1,477,638

J. FEIGENBAUM

INCINERATOR

Filed May 31, 1923

Fig. 1.



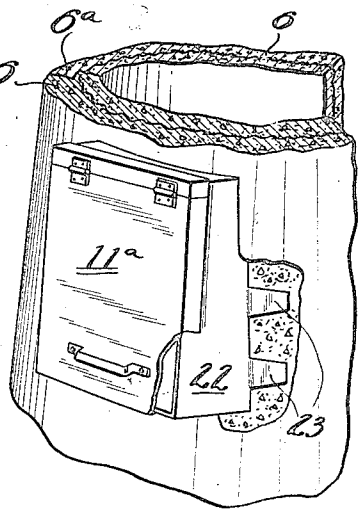


Fig. 2.

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Patented Dec. 18, 1923. 1,477,638

UNITED STATES PATENT OFFICE.

JOSEPH FEIGENBAUM, OF LOS ANGELES, CALIFORNIA, ASSIGNOR TO SAFETY CONCRETE INCINERATOR CO., INC., OF LOS ANGELES, CALIFORNIA, A CORPORATION OF CALIFORNIA.

INCINERATOR.

Application filed May 31, 1923. Serial No. 642,703.

To all whom it may concern:

Be it known that I, JOSEPH FEIGENBAUM, a citizen of the United States, residing at 1018 N. Western Ave., Los Angeles, in the county of Los Angeles and State of California, have invented new and useful Improvements in Incinerators, of which the following is a specification.

This invention relates to incinerators, and has for an object to provide an improved incinerator built of sections of reinforced concrete composition. An object is to provide a concrete incinerator of simple and substantial construction, and one in which provision is made for expansion and contraction of the body or shell to secure durability and long life.

Other objects and advantages will be made manifest in the following specification of embodiments of the invention illustrated in the accompanying drawings, wherein—

Figure 1 is a vertical, central section through an embodiment of the invention.

Fig. 2 is a perspective of a portion of the furnace shell showing a metallic door structure.

One of the broad purposes of the present invention is to provide a domestic incinerator of such construction that the fire hazard, made possible by the contact of objects against the exterior of the incinerator, will be materially reduced and practically overcome, since the incinerator is largely, if not wholly constructed of a fire resisting material with small or no exterior metal exposures likely to ignite objects brushing against the same while highly heated.

In Figure 1, the incinerator is shown as including a substantially annular concrete composition base or foundation 2, designed to project upwardly above the ground level a suitable distance, and being provided with a suitable grate structure, which may consist of a number of transversely arranged and parallel grate bars 3, having ends turned downwardly as at 3^a and firmly embedded in the concrete foundation ring 2. A side portion of this ring may be provided with a draft opening 4, closable by a preferably fire-proof draft regulator or block 5, which may be disposed contiguous to or in the draft opening 4.

The shell or fire box of the incinerator is preferably constructed of a plurality of matching segments 6 of a frustum of a cone, such segments being provided with longitudinal matching edges 6^a. These segments are made of a fire resisting composition, and preferably are of a concrete structure having reinforcing wires or fabric 7. The segments 6 have lower ends of less thickness than the thickness of the foundation 2, therefore forming a clearance for the bent shoulders of the grate bars 3 around which the lower end of the shell segments is adapted to be disposed on top of the foundation, and preferably bonded to the latter as by a cement mortar 8. One of the segments 6 is provided with a filling or charging opening 10, having a recessed or counter-sunk edge 10^a, and onto this there is adapted to be snugly closed a composition door 11, which may be of concrete construction reinforced as at 12 and hingedly connected at 13 so as to be lifted upwardly to uncover the aperture 10.

The meeting edges 6^a of the shell segments 6 are preferably not bonded, and are left free to provide for the working of this joint to compensate for expansion and contraction, and therefore reduce the tendency of the shell to fracture and break down under heat.

To the top of the conical shell there is applied an integral or one-piece dome 14, which has a lower, conical portion, the bottom of which matches with and is cemented at 15 on the top of the shell. The upper portion of the dome 14 is of cylindrical form and forms the chimney for the furnace. At the upper end of the chimney there is provided a spark arresting screen 16, which is embedded on the top of the chimney by a crown ring 17, which is made of reinforced concrete material, as also is the dome 14 with its integral chimney portion 14^a. The crown ring 17 is permanently mounted on the top of the chimney portion 14 so as to form a substantially integral part therewith.

The crown ring 17 is formed integrally with a hood 18, spaced a suitable distance above the crown ring and secured thereto by integral standards 19 which, with the hood, are made of concrete material integral with the crown ring.

There may be provided, in the bottom of the incinerator, a burner 20, of any suitable

type, and which may be supplied with fuel as by a gas or other fuel pipe 21.

The incinerator is shown in Figure 2 as provided with a metal frame 22, having lugs 23 permanently embedded in one of the concrete segments, and this window frame is provided with a sheet metal cover 11^a.

Further embodiments, modifications and variations may be resorted to within the principle of the invention.

What is claimed is:

1. An incinerator including a frusto-conoidal shell formed of segments of monolithic form and having longitudinal, abutting edges, one of the sections being provided with a charging aperture in its side, a monolithic dome at the top of the shell, the dome being provided with an aperture having a movable closure, spark arresting means at the top of the dome, and a hood arranged above the spark arrester.

2. An incinerator including a frusto-conoidal shell formed of segments of monolithic form and having longitudinal, abutting edges, one of the sections being provided with an aperture in its side portion, a conical dome on the top of the shell, said dome consisting of a monolithic composition member and being provided with an aperture having a movable closure, spark arresting means at the top of the dome, and a hood arranged above the spark arrester, said dome having a chimney portion on which the hood is supported.

3. An incinerator including a frusto-conoidal shell formed of segments of monolithic form and having longitudinal, abutting edges, one of the sections being provided with a filling aperture in its side portion, a dome mounted upon the top of the shell, the dome being provided with an aperture having a movable closure, spark arresting means at the top of the dome, a hood arranged above the spark arrester, and an annular foundation member at the lower portion of the shell, said foundation member being provided with a grate structure, and having a draft opening at one side.

4. An incinerator including a frusto-conoidal shell formed of segments of monolithic form and having longitudinal, abutting edges, one of the sections being provided with a filling aperture in its side portion, a dome mounted upon the top of the shell, the dome being provided with an aperture having a movable closure, spark arresting means at the top of the dome, a hood arranged above the spark arrester, and an annular foundation member at the lower portion of the shell, and upon which the shell is mounted, said foundation member having a shoulder within the base of the shell and a grate structure consisting of bars mounted in said shoulder.

5. An incinerator including a frusto-conoidal shell formed of segments of monolithic form and having longitudinal, abutting edges, one of the sections being provided with a filling aperture in its side portion, a dome mounted upon the top of the shell, the dome being provided with an aperture having a movable closure, spark arresting means at the top of the dome, and a hood arranged above the spark arrester, the hood being a monolithic composition and permanently mounted upon the top of the dome and including upstanding standards forming vent spaces.

6. An incinerator including a frusto-conoidal shell formed of segments of monolithic form, one of the sections being provided with a filling aperture in its lower portion, a convergent dome at the top of the shell, the dome being provided with an aperture having a movable closure, spark arresting means at the top of the dome, and a hood arranged above the spark arrester, said hood consisting of a monolith having a ring base on the hood, standards on said ring and a cover part on the top of the standards.

7. An incinerator, including a shell formed of segments of monolithic form and having longitudinal abutting edges, a monolithic dome at the top of the shell, the dome being provided with a filling aperture having a movable closure, a spark-arresting means at the top of the dome and a hood arranged above the spark-arresting means.

In testimony whereof I have signed my name to this specification.

JOSEPH FEIGENBAUM.