Oct. 31, 1950 R. T. MILES 2,528,447

REVERSIBLE TRASH INCINERATOR

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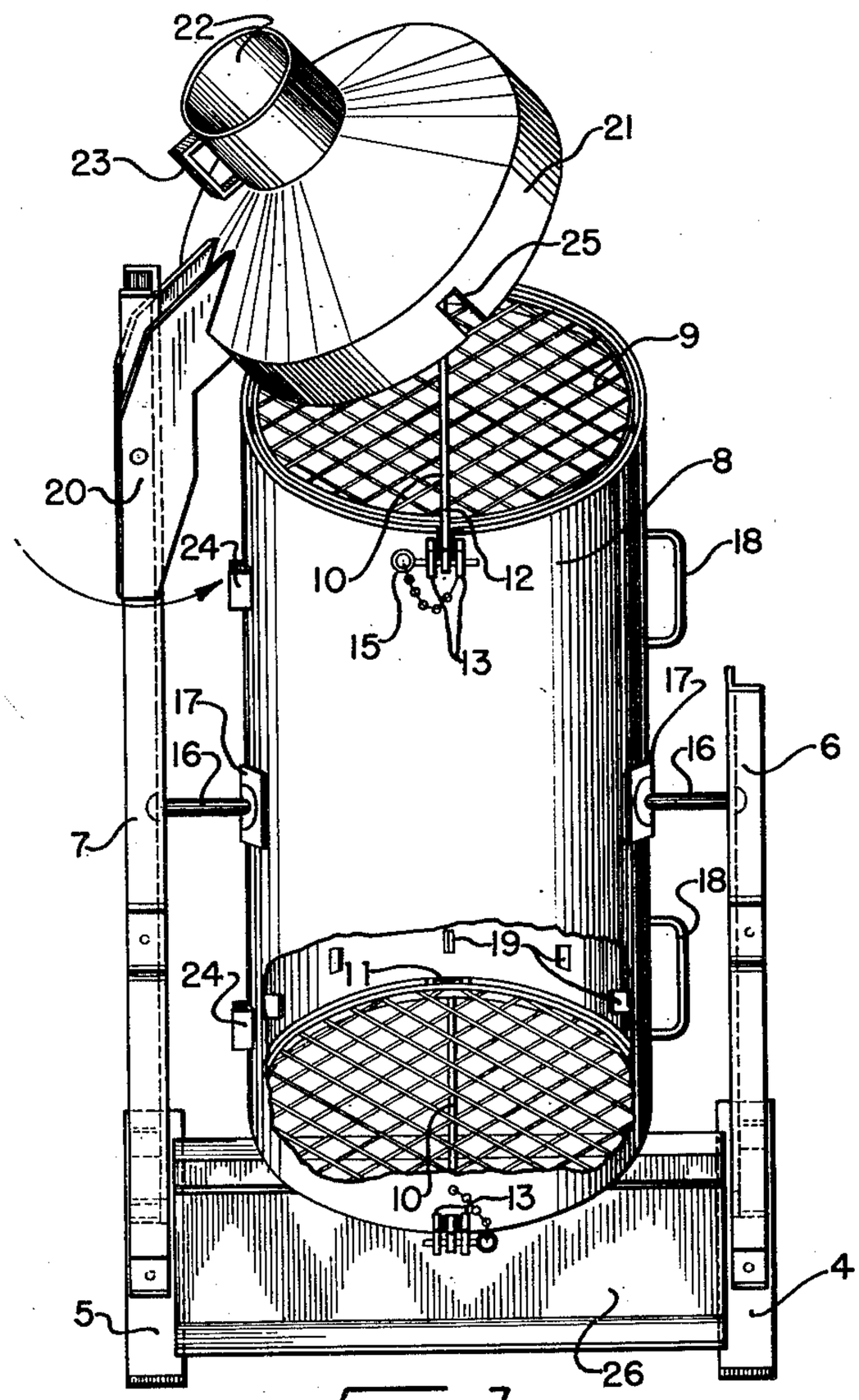

Fig. 1.

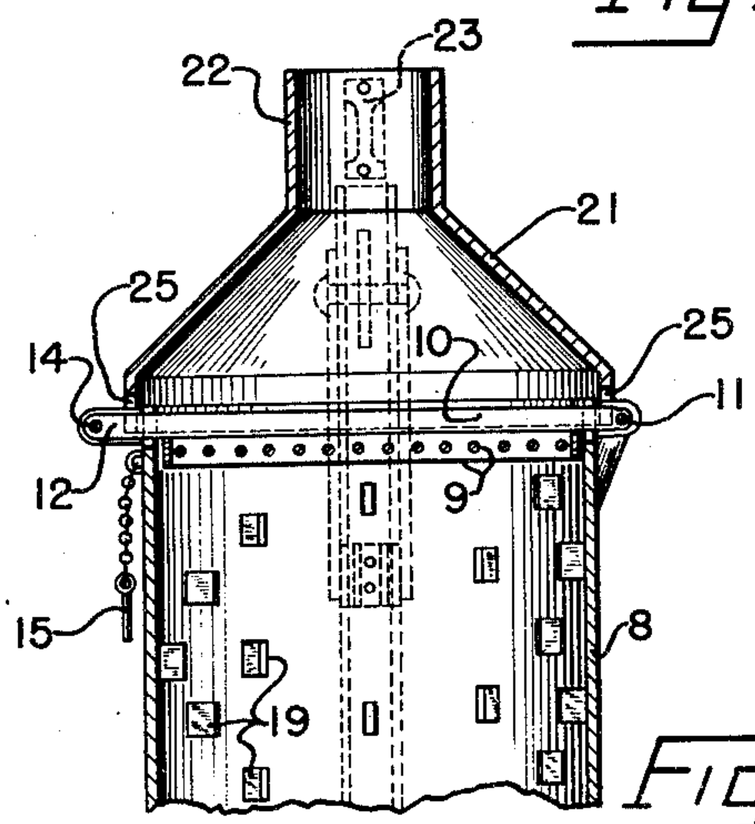

Fig. 2.

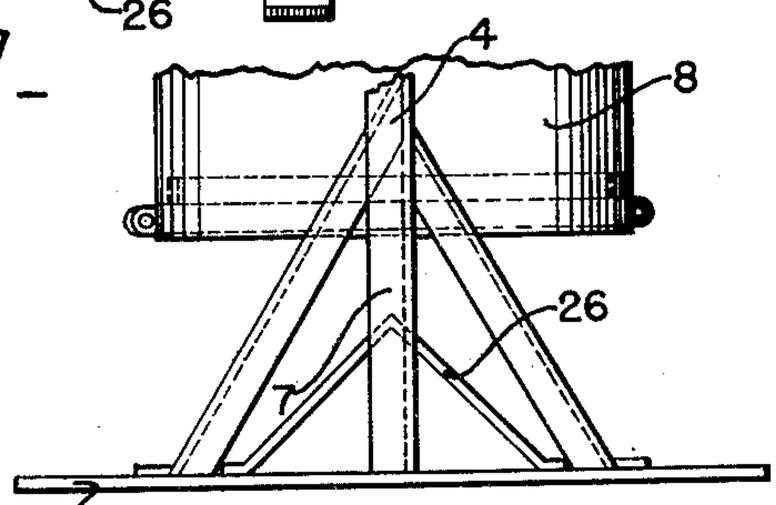

Fig. 3.

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REVERSIBLE TRASH INCINERATOR

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6 Claims. (Cl. 110—18)

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The invention consists of a trash incinerator an object of which is the expeditious and consummate burning of trash with a minimum dispersal of residua and sparks.

It is well known that metal trash burners are unsatisfactory for many reasons but particularly because their usefulness is short-lived. With the present invention I have found that a burner body may be used, constructed of a durable lasting material, the body being mounted in a manner to effect extremely rapid and complete burning of the trash; the body is constantly maintained spaced from the ground and is rotatably mounted especially to permit the trash to be initially ignited at the top of the incinerator body preparatory to inversion of the body for effecting burning of the trash from the bottom of the body.

It is also an object of this invention to provide an imperforate cylinder, each end of which is equipped with a movable grate, the cylinder being rotatably mounted on a supporting structure and adapted for reception on either end with a hood through the top of which smoke from the burning trash is exhausted, means being carried by the hood for engaging the same with and disengaging the hood from the body, the means also being operable into engagement with the body to lock the latter from movement. Other objects of the invention will be apparent from the following description of the present preferred form of the invention taken in connection with the accompanying drawings wherein:

Figure 1 is a perspective view of a trash incinerator constructed in accordance with the present invention showing the hood in partly opened position, a portion of the body of the incinerator being broken away to disclose details.

Figure 2 is a detail fragmentary vertical sectional view of the incinerator body showing the hood in a closed position; and

Figure 3 is a detail fragmentary side elevational view of the incinerator showing the lower portion of the incinerator body, the air deflector and the base of the frame.

The device of the present invention ilncludes a frame generally designated **4** which consists of a base **5** with vertical uprights **6** and **7** arranged in parallel relation, upright **7** projecting upwardly in a plane beyond the top of upright **6**.

Supported by the uprights **6** and **7** is an imperforate cylinder or trash receiving body **8** made of metal or like material having open ends in each of which is mounted a grate **9**. Each grate consists of a ring with a recticulate body, the

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diameter of the ring being such as to fit snugly within the body **8**. Each of the grates carry a bar **10**, one end of which is pivotally engaged, as indicated at **11**, to the outer periphery of the cylinder **8**, at a point adjacent its terminal. The opposite end **12** of each bar extends beyond the body and serves in a dual capacity of a handle for manipulating the grate and a means for securing the grate from casual displacement. The free end of the bar is provided with a perforation **14** which complements openings formed in ears **13**, the openings in the ears and the perforation in the bar being adapted for the reception of a body carried pin **15**. The body **8** is rotatably mounted in the frame **4** through the instrumentality of shafts **16**, one end of each shaft being secured to a plate **17** carried by the body **8** while the other end of each shaft is journalled in one of the vertical uprights. To facilitate rotation of the cylinder on the shaft **16** handles **18** are provided, as advantageously illustrated in Figure 1. The inner periphery of the body **8** is fluted in a suitable manner in order to prevent the adherence of the waste material to the inner wall of the body. In the present instance I provide staggered ribs **19** which preferably extend completely around the inner wall of the body **8** from the opposite ends of the latter. The elongated upper end of the upright **7** has pivotally engaged thereto an arm **20** one end of which is secured to a hood **21**. The hood is adapted for sliding engagement over either end of the body or cylinder **8**.

The hood **21** is preferably of truncated cone shape, the upper end thereof issuing into a flue **22** upon which a handle **23** is mounted. If desired, the handle may be insulated. Manipulation of the hood **21** through the handle **23** causes the arm **20** to be moved in an arc as described by the arrow in Figure 1. When the hood **21** is moved into an extreme open position the free end of the arm **20** will flex into either one of a pair of resilient clamps **24**, the U-shaped clamps being arranged in vertical alignment on the outer wall of the body **8** as shown in Figure 1. It will be noted, upon reference to Figures 1 and 2, that the base of the hood is annular and provided with parallel recesses **25** in which either one of the bars **10** is adapted to lie when the hood is in a completely closed position as shown in Figure 2.

The invention also includes an air deflector **26** which is carried by and extends upwardly from the base **5** of the frame immediately beneath the body or cylinder **8**. Preferably the deflector **26**

is of inverted V shape in cross section and secured to the base as shown to advantage in Figure 3.

In use of this device the body or cylinder 8 is positioned vertically as shown in Figure 1 after which the hood 21 is moved by the arm 20 until the free end of the latter engages one of the clamps 24 thereby locking the body from movement on the shafts 16. After this, the pin 15 having been removed from engagement with the ears 13 and the bar 10 the free end of the latter is moved upwardly carrying with it its grate, leaving the upper end of the body open for the reception of trash. After the trash has been deposited in the body 8 and ignited from the top, the bar 10 is moved until the grate is engaged with the top of the body following which the pin 15 is inserted through the openings in the ears 13 and the free end of the bar. The arm 20 is then disengaged from its clamp 24 and the body 8 is rotated on the shafts 16 until the body is inverted. In this way the burning trash is positioned at the bottom of the body or cylinder and the hood 21 is engaged with the top of the body in an obvious manner. The air deflector 26 tends to spread air at the bottom of the body to effect a controlled draft through the latter for complete burning of the contents of the body. At the same time the smoke is permitted to pass through the flue 22 and residua are arrested in an apparent manner.

Various changes may be made in this invention within the scope of the claims appended hereto.

What I claim is:

1. A trash incinerator including a frame, a trash receiving body, reversibly mounted on the frame, a movable grate on each end of the body, a hood carried by the frame and engageable with and over either end of the body, and means for moving the hood into engagement with and out of engagement from the body, said means being operable into engagement with the body to secure the latter from movement.

2. A trash incinerator including a frame, a trash receiving body reversibly mounted on the frame, a grate hingedly mounted on each end of the body, a hood carried by the frame and engageable over either end of the body, and means carried by the hood and movable into engagement with the body to secure the latter from movement.

3. A trash incinerator including a frame, a trash receiving body reversibly mounted on the frame, a grate hingedly mounted on each end of the body, a hood carried by the frame and engageable over either end of the body, means carried by the hood and movable into engagement with the body to secure the latter from movement, and means mounted on the frame in close proximity to the lower end of the body for deflecting air passing into the body.

4. A trash incinerator, including a frame, a trash receiving body reversibly mounted on the frame, a grate hingedly mounted on each end of the body, a hood carried by the frame and engageable over either end of the body, an arm connecting said hood to the frame, and clamps on the body and engageable with said arm to hold the hood in an open position.

5. A trash incinerator, including a frame, a trash receiving body reversibly mounted on the frame, a grate hingedly mounted on each end of the body, each grate being provided with an extension, a hood carried by the frame and engageable over either end of the body, said hood being provided with a recess adapted for the reception of the extension of the uppermost grate, ears mounted on the body and adapted to receive therebetween said grate extension, a pin extending through said grate extension and ears, the grate extension and ears lying in the recess of the hood when the hood is in a closed position.

6. A trash incinerator, including a frame, a trash receiving body reversibly mounted on the frame, a grate hingedly mounted at each end of the body, a hood carried by the frame and engageable over either end of the body, and a deflection plate of inverted V-shape mounted on the frame immediately below the trash receiving body to spread the air at the bottom of the body.

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