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E. PELLETIER

3,485,190

INCINERATOR

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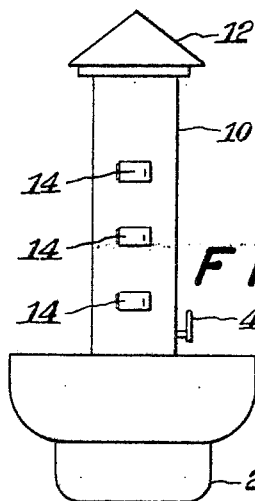


FIG. 1

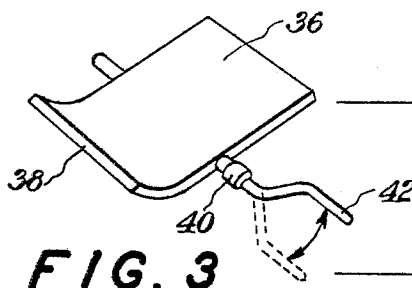


FIG. 3

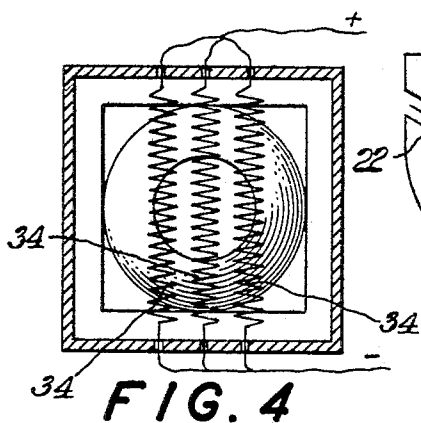


FIG. 4

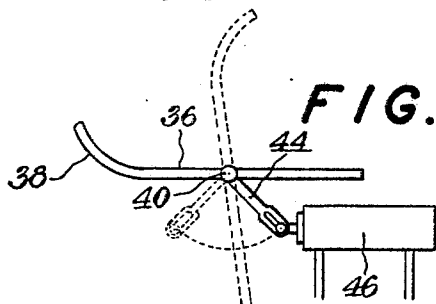


FIG. 5

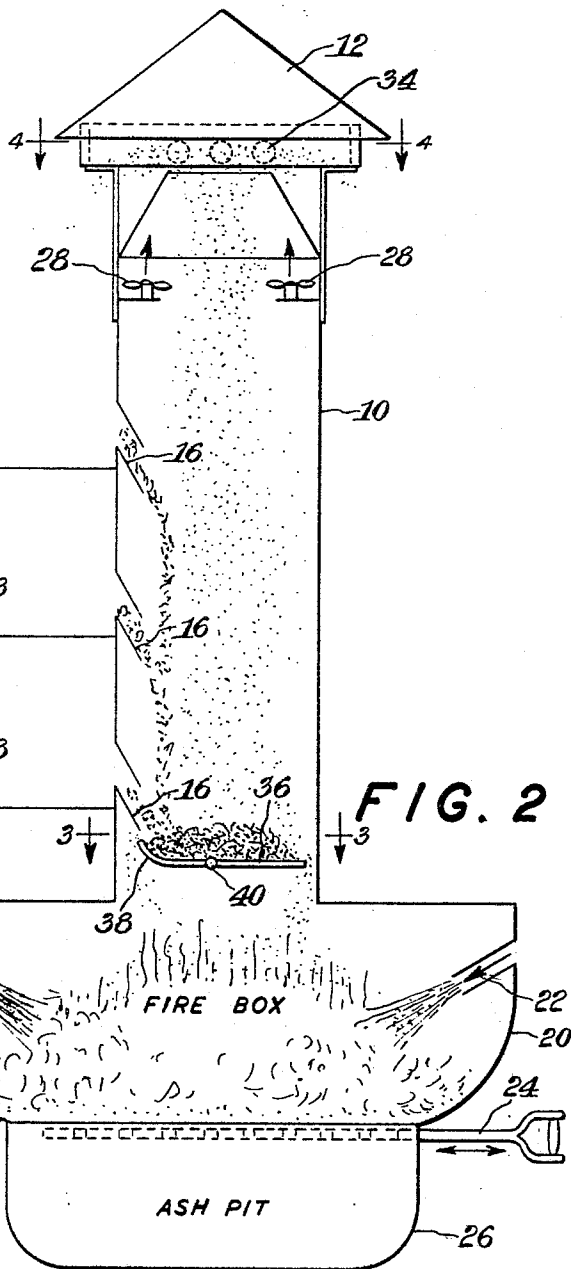


FIG. 2

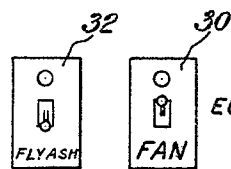


FIG. 6

INVENTOR.
EUGENE PELLETIER

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3,485,190

INCINERATOR

Eugene Pelletier, New York, N.Y., assignor of ten percent to The Raymond Lee Organization, Inc., New York, N.Y., a corporation of New York

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5 Claims

ABSTRACT OF THE DISCLOSURE

An incinerator in which garbage and other waste is burned under forced draft in a firebox disposed at the base of a chimney, said firebox having rounded bottom edges and a plurality of downwardly inclined flame jets extending inwardly toward the center of the firebox and the incomplete products of combustion such as flyash are passed through a subsequent heating zone for complete burning prior to discharge to the atmosphere.

Summary of the invention

In my invention a vertical chimney passes upward through a multistory building, each floor having an access door through which waste can be thrown downward, into the chimney. A firebox with an ash pit disposed therebelow is disposed at the base of the chimney and has jets of flame injected inclinedly downwards therein.

The waste as it falls downward is caught by dampers disposed above the jets and automatically or manually operated to feed the waste to the flames for burning. Fans disposed in the chimney above the highest story create a forced upward draft. Electrical heating elements disposed above the fans are energized to completely burn the incomplete products of combustion drawn upward from the jets to insure complete burning prior to discharge to the atmosphere.

Brief description of the drawings

In the drawings:

FIG. 1 is a side view of my invention;

FIG. 2 is a cross sectional side view thereof;

FIG. 3 is a detail view of a damper used in my invention as taken through 3—3 in FIG. 2;

FIG. 4 is a cross sectional view through 4—4 in FIG. 2;

FIG. 5 is a detail view of a modification of my damper; and

FIG. 6 illustrates the control switches used in my invention.

Detailed description of preferred embodiments

Referring now to FIGS. 1—6, a vertical chimney 10 has a protective top cap 12 and a plurality of vertically displaced access doors 14 each communicating via a vertically inclined chute 16 downward into the interior of the chimney. These doors can be disposed along different floors 18 of an apartment house or other multistory building using my invention.

At the base of the chimney is an enlarged fire box 20 having rounded bottom edges to prevent build up of waste out of the path of the fire. Downwardly inclined gas jets 22 burn waste accumulated in the box, with the heavy ash falling downward through a horizontally slid-

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able damper 24 in the base of the box to an ash pit 26 disposed therebelow. Upwardly inclined exhaust fans 28 disposed in the chimney adjacent the cap and above the highest access door produce the desired forced draft. These fans are electrically operated under the control of switch 30. A second switch 32 controls the operation of a plurality of horizontal parallel electrical heating coils 34 disposed in the base of the cap and electrically connected in parallel. These coils provide for complete combustion as previously described.

A waste damper plate 36 is disposed in the chimney below the lowest chute 16 and above the box to collect the waste and can be opened or closed as desired to discharge the waste to the firebox. One end 38 of the plate is rounded upward to eliminate the accumulation of broken bottles, wire hangers and the like. This plate is pivotable about an axis 40 extending transversely thereacross to insure that the waste is forced to the center prior to dumping. The plate can be manually pivoted by handle 42 or can be controlled automatically via a linkage 44 from a motor 46 as shown in FIG. 5.

While I have described my invention with particular reference to the drawings, such is not to be considered as limiting its actual scope.

Having thus described this invention, what is asserted as new is:

1. An incinerator comprising:

a vertical chimney having a plurality of vertically spaced access doors and a like plurality of chutes, each chute extending inclinedly downwards from the corresponding door into the chimney;

a firebox disposed at the base of the chimney, said box having rounded bottom edges;

an ash pit disposed below said box; and

a plurality of downwardly inclined flame jets extending inward from the periphery of the box toward the center.

2. An incinerator as set forth in claim 1 wherein a plurality of electrical exhaust fans are disposed adjacent the top end of the chimney in the chimney to create a forced upward draft.

3. An incinerator as set forth in claim 2 including electrically operated heating coils disposed horizontally in the chimney above the fans to completely burn incomplete products of combustion carried upward from burning waste in the fire box.

4. An incinerator as set forth in claim 3 wherein a damper pivotable about its center is disposed in the chimney above the box and below the lowest chute.

5. An incinerator as set forth in claim 4 further including a second horizontally slidable damper disposed between the fire box and the ash pit.

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FREDRICK L. MATTESON, JR., Primary Examiner

R. A. DUA, Assistant Examiner