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2,608,169

DRAFT HEAD FOR REFUSE BURNERS

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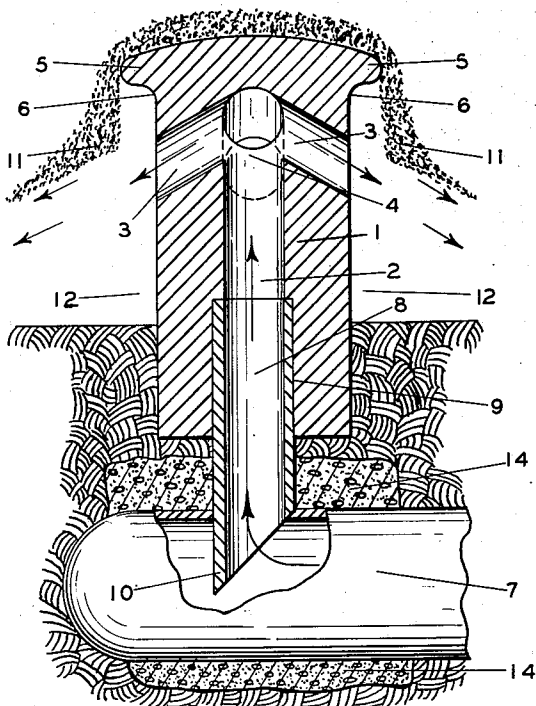


Fig 3

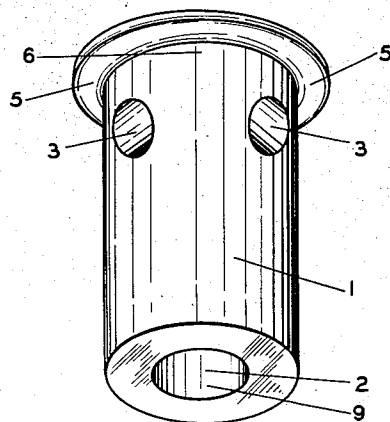


Fig 4

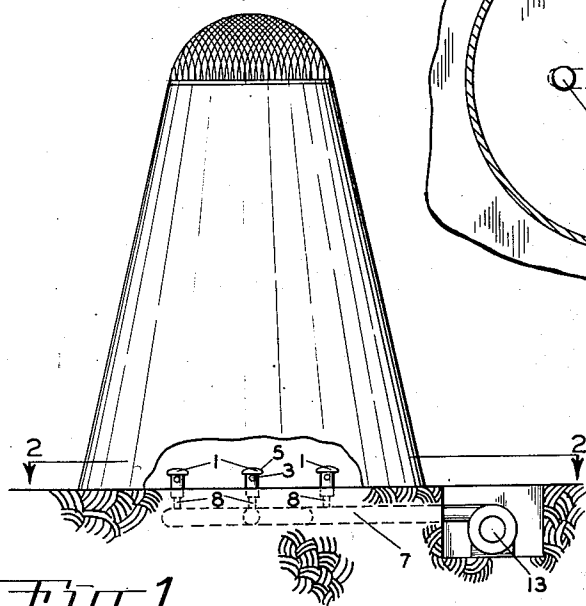


Fig 1

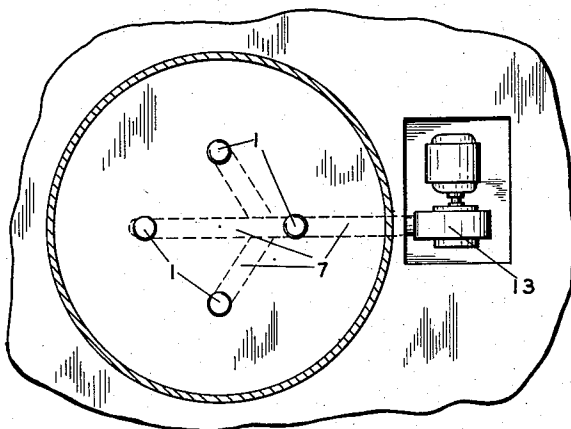


Fig 2

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DRAFT HEAD FOR REFUSE BURNERS

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2 Claims. (Cl. 110—182.5)

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This invention relates to improvements in draft heads and is particularly adapted to be used in connection with sawdust refuse burners.

The primary object of the invention is to design a draft head that will not become clogged with slag and the like in its operation.

A further object of the invention is to design a draft head that is light of weight and that can be easily moved about on installation of the same without the use of hoisting devices and so forth.

A plurality of our new and improved draft heads are adapted to be used in parallel, thereby eliminating the use of one single draft head of the present construction.

The present draft head weighs considerably over a ton and is difficult to install, but with our new and improved draft head the weight is cut down, making it much easier to install the head.

These and other incidental objects will be apparent in the drawings, specification and claims.

Referring to the drawings:

Figure 1 is a side view of a refuse burner, partially broken away, illustrating our new and improved draft head installed therein.

Figure 2 is a plan sectional view taken on line 2—2 of Figure 1.

Figure 3 is an enlarged fragmentary view of the draft manifold showing the draft head in section.

Figure 4 is an underneath perspective view of the draft head removed from the draft manifold.

Referring more specifically to the drawings:

Our new and improved draft head consists of a single piece of cast metal 1, having a vertical core 2 running therethrough and communicating with the ports or nozzles 3 centrally of the head at 4. The ports or nozzles 3 slope downwardly from the central portion 4 as best illustrated in Figure 3, directing the air in the direction of the arrows to the surrounding area.

An overhanging ledge 5 surrounds the top of the head 1. The object of this ledge is to direct the slag from the refuse being burned away from the sides 6 of the draft head, while the refuse is being burned.

The heads 1 are connected to the air manifolds 7 by way of the nipples 8, which are welded or otherwise secured to the manifolds 7. These nipples fit into an enlarged cored out portion

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9 within the vertical core 2, as best illustrated in Figure 3. The nipples are brought down at 10 within the manifold 7 in order to catch the forced draft and direct it up into the draft head, as indicated by the arrows.

As the draft enters the ports 3 at 4, it is directed out in the direction of the arrows under the refuse 11 being burned, thereby any slag that is being created and is dripping over the ledge 5 is blown away from the draft head maintaining a relatively clean area around the draft head at 12.

The manifolds 7 receive their air supply from a suitable blower unit 13. It will be noted that there are a number of draft heads being operated from the blower by way of the manifolds 7 throughout the area within the refuse burner.

It is a simple matter to remove or install the draft heads on the nipples 8, as they merely drop over the ends of the nipples and are secured in place by concrete 14, binding the whole assembly together.

What we claim is:

1. A draft head for a grateless sawdust burner, comprising a cylindrical integral body portion having a central passage of uniform diameter opening through the bottom end and extending to a point short of the top end of said body portion, said body portion having a plurality of radially disposed downwardly inclined passages in communication at their inner ends with the upper end of said central passage and opening at their outer ends through the sides of said body portion, the top end of said body portion being slightly domed and having a radially extending flange protruding beyond the cylindrical sides of said body portion.

2. A draft head for a grateless sawdust burner, comprising a cylindrical integral body portion having a central passage of uniform diameter opening through the bottom end and extending to a point short of the top end of said body portion, said body portion having a plurality of radially disposed downwardly inclined passages in communication at their inner ends with the upper end of said central passage and opening at their outer ends through the sides of said body portion, the top end of said body portion being slightly domed and having a radially extending flange protruding beyond the cylindrical sides of

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said body portion, said body portion having a recess in its lower portion and surrounding said central passage, and a cylindrical nipple seated in said recess, said nipple having a central passage in communication and uniform with said body portion passage, the lower end of the nipple being cut at an angle to form a baffle on one side, whereby said lower nipple end may be inserted in a flue with the baffle disposed within the flue to intercept and direct air from the flue into said central passage.

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