

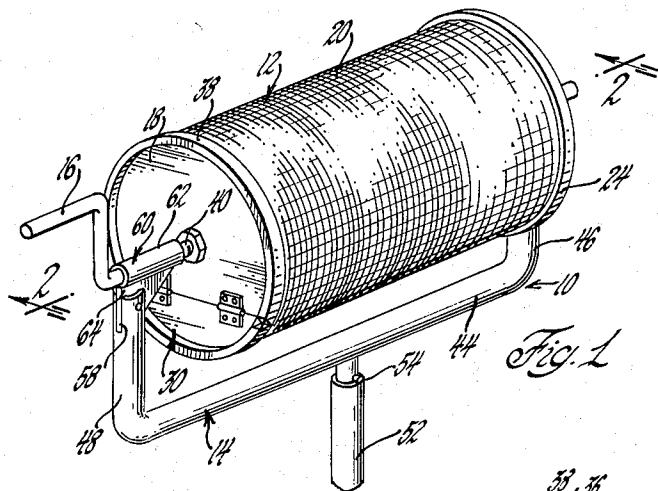
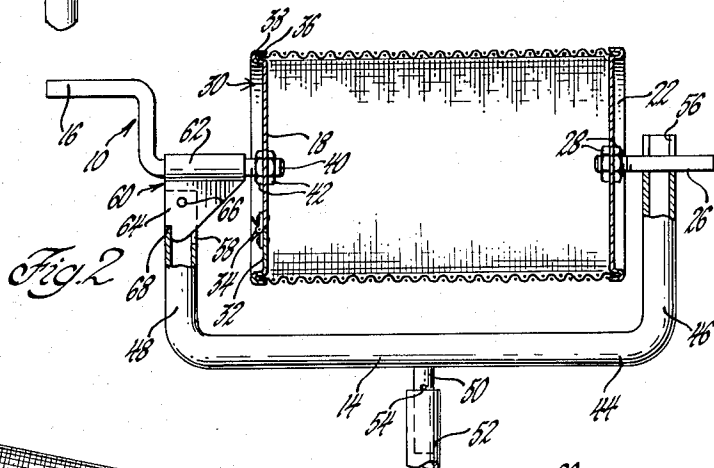
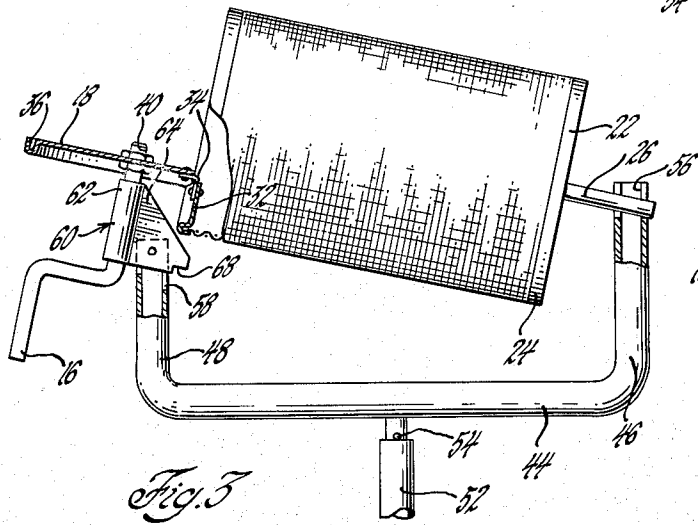
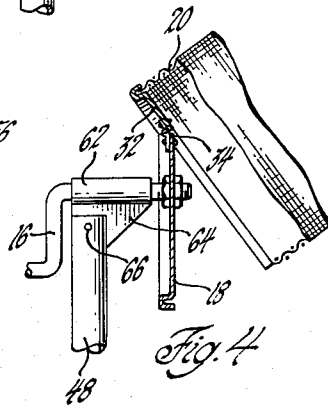
July 5, 1966

O. E. CAMPBELL

3,259,085

TRASH BURNER

Filed Aug. 2, 1963



INVENTOR.

Orville E. Campbell

BY

Dale A. Winnie

ATTORNEY

1

3,259,085

TRASH BURNER

Orville E. Campbell, 2184 St. Joseph, Pontiac, Mich.
Filed Aug. 2, 1963, Ser. No. 299,554
5 Claims. (Cl. 110—18)

This invention relates to trash burners in general and more particularly to a device for household or commercial use in the burning and disposal of combustible refuse.

Although the conveniences of city living usually include at least weekly removal of trash and refuse by public works employees, there is invariably some papers, leaves, garden clippings or other refuse that one would like to burn and get out of the way. Country dwellers, suburbanites, farmers, and owners of small stores, manufacturing facilities, and the like have even more occasion for wanting to dispose of some combustible matter and usually resort to wire basket burners, steel drums converted for burning purposes or small incinerators of one kind or another.

Open fires are obviously objectionable because of the danger of flying ashes and sparks and it has become customary to have some form of container in which trash can be burnt without these hazards.

Unfortunately, most trash burners have poor circulation for good combustion and require one to prod and lift half-burnt rags and papers to assure good and complete burning. Furthermore, such depositories usually sit on the ground and are outside where they collect rain water or at least dampness which seriously inhibits burning. These and numerous other factors make presently known trash burners unacceptable for their intended purpose.

In passing, it will also be appreciated that the conventionally known trash burners all require loading from the top, which only serves to pack the unburned refuse, and that emptying the burner involves turning the wire basket or drum upside down or using a shovel or the like if the incinerator is essentially immovable.

Although many small and commercial sized dehydrating incinerators have been developed and are available to the general public, it will be recognized that the cost of these burners, and of their use, is prohibitive as far as most of the general public is concerned. Furthermore, they still do not solve the problem of outdoor burning unless one wishes to drag wilted flowers, dry grass clippings, and leaves, or wind blown papers, or the like, back into the house.

It is an object of this invention to provide a relatively inexpensive trash burner which may be used by home owners or commercial establishments for disposing of unwanted combustible trash and refuse.

It is an object of this invention to provide a rotatable trash burner to avoid the necessity of prodding or stirring the fire to assure full and complete combustion.

It is an object of this invention to provide a wire form burner for better circulation of air needed for combustion and to have the wire form container rotatable about a horizontal axis for tumbling the refuse and assuring still better combustion.

It is also an object of this invention to provide means for easily and conveniently loading the rotatable trash burner of this invention and for unloading or dumping unburnable cans, foil wrappings and ashes when required.

Another object of this invention is to provide a trash burner which includes a very minimum of separate parts,

2

all of which are relatively inexpensive to make, simple in construction, easily assembled, and durable in use.

With particular reference to the embodiment of this invention hereinafter disclosed and described, it is an object of this invention to provide a wire form or basket type of trash burner including means of support for rotation thereof about a horizontal axis. The burner is readily separable from its means of support but need not be disengaged therefrom for receiving refuse or dumping ashes. It includes an end cover door which is so hinged as to cause the burner to be tilted upward to receive combustible matter and to open downwardly when uncombustible matter and ashes are to be dumped thereon.

These and other objects and advantages to be gained in the practice of this invention will be better understood and appreciated upon a reading of the following specifications in regard to a preferred embodiment of the invention and having reference to the accompanying drawings wherein:

FIGURE 1 is a perspective view of the trash burner of this invention as disposed for use.

FIGURE 2 is a partially cross-sectioned side view of the trash burner shown by FIGURE 1 as seen in the plane of line 2—2 and looking in the directions of the arrows thereon.

FIGURE 3 is a side view of the trash burner of FIGURE 1 as seen with the cover door open and the burner disposed to receive combustible matter therein.

FIGURE 4 is a fragmentary and partially cross-sectioned side view of the trash burner shown by the other drawing figures with the cover door open and the burner disposed to dump ashes and unburned refuse therefrom.

The embodiment of this invention shown by the drawings comprises a trash burner 10 which is made up of a wire form basket or cylindrical drum 12 supported for rotation about a horizontal axis. The burner basket 12 is supported for rotation in a stand 14 and includes a crank handle 16 by which it can be turned as desired. One end of the burner basket is formed to include a cover door 18 which is opened to fill or empty the burner and it is suitably hinged to the support to enable tilting the burner basket when it is opened, as will be described later.

The burner basket 12, as mentioned, is preferably a wire form member 20 with a sufficiently close mesh to receive and retain reasonably small bits of paper and refuse but large enough to obtain reasonably good ventilation to assure good combustion. Since provision is made for rotating the burner basket it will also be appreciated that the mesh should not be sufficiently large to allow small bits of partly burned paper or ashes to escape the container. However, inasmuch as container rotation is not required, as will be later appreciated, a reasonably large and open mesh is acceptable within the limits mentioned.

The wire form member 20 is formed to a cylindrical shape and is closed at one end by an end cover 22.

The end cover 22 is circular in shape and formed to include a peripheral flange 24 bent back on itself and suitably formed for secure engagement with the wire form basket. A stub shaft 26 is secured to the end cover at its center by nut fasteners 28 or any other suitable means.

The other end of the wire form basket 20 is closed by a similar closure 30 but has only a small chordal part 32 actually crimped in secure engagement therewith. The other part forms the cover door 18 and is hinged to

3

the smaller part, as by hinges 34, or other hinge providing means, and merely receives the edge of the wire form basket 20 within the receptive groove 36 formed in its peripheral flange 38.

It will be appreciated that the cover door 18 is closed when the burner basket is in use and accordingly helps hold the cylindrical shape of the basket though not fixed thereto.

The cover door 18 has a stub shaft 40 secured thereto, centrally with respect to the end closure, and held by nut fasteners 42 or the like. The stub shafts 40 and 26 are aligned and accordingly provide the rotational axis about which the burner basket is rotatable. The stub shaft 40 is also formed to provide the crank handle 16 by means of which the basket can be turned.

In the present instance the support stand 14 includes a yoke member 44 which forms parallel spaced arms 46 and 48 receptive of the stub shafts 26 and 40 of the burner basket. It also includes a center part 50 which may be received in a tubular support 52 driven into the ground.

Although other support stands may be used, it will be appreciated that the one proposed is simple and enables the burner basket to be rotated about a vertical axis and into or out of a strong wind without any difficulty.

The center part 50 may also be provided with a series of holes and a pin 54 to afford some height adjustment if desired.

The support arm 46 is formed to include a simple slot 56 open at the upper end and readily receptive of the stub shaft 26 or journaled support therein.

The other support arm 48 is formed to include a similar slot 58 but is receptive instead of a bearing support member 60 therein.

The bearing support member 60 is a hinged bracket including a sleeve 62, through which the stub shaft 40 extends, and a flat plate 64 which is retained pivotally in the arm slot 58 by a pin 66. A shoulder 68 formed on the end of the plate acts as a stop with one side of the arm which is cut lower on one side than on the other.

Referring to FIGURES 1 and 2, it will be noted that the weight of the burner basket 12 keeps the support bracket 60 erect, in its shoulder stopped position, and the basket closed and disposed for rotation.

When it is desired to open the burner basket to receive anything, the basket is turned until the cover door 18 is disposed as shown in FIGURES 1 and 2. A slight downward pressure is then applied to the end of the crank handle 16 to pivot the support bracket 60 and open the cover door 18 as shown by FIGURE 3.

In the course of opening the cover door 18 the open end of the burner basket is elevated and is readily receptive of whatever is to be disposed therein. The other end of the basket simply fulcrums on the stub shaft 26 engaged in the slot 56 of the support arm 46.

When it is desirable to empty the burner basket, it is rotated until the cover door is disposed downwardly, as shown by FIGURE 4, and the stub shaft 26 is then raised out of its support to tilt the cover door end of the basket down. Since the weight of the basket keeps the support bracket 60 erect, the cover door remains vertically disposed and the basket pivots away from the cover to allow ashes and the like to be dumped.

From the foregoing description of a preferred embodiment of this invention it will be appreciated that a relatively simple and inexpensive trash burner can readily be provided and that it can be made in any given size to serve any intended purpose. Aside from the cover door which is necessary on all incinerators, there are essentially no moving parts subject to rust, wear, or malfunction adversely affecting the operation of the disclosed or like trash burners.

The device disclosed includes no complicated or expensive parts and is compact in assembly for use or storage. It is light weight and durable, readily cleaned, and

4

provides unquestionably better circulation of air for more complete combustion by enabling the trash and refuse being burned to be turned and tumbled as proves necessary.

Although a preferred embodiment of this invention has been shown and described in detail, it will be appreciated that certain modifications and improvements are within the scope of the teachings set forth. Accordingly, such of these improvements and modifications as are within the spirit of the invention and are not specifically excluded by the language of the hereinafter appended claims, are to be considered as inclusive thereunder.

I claim:

1. A trash burner, comprising:

a cylindrical trash receptive member having opposite ends thereof closed,

stub shaft members provided at opposite ends of said trash receptive member and axially aligned therethrough,

a support stand receptive of said stub shaft members and providing means for supporting said trash receptive member for rotation about a horizontal axis, a cover door provided in one end of said trash receptive member and hinged near a side edge thereof,

said cover door having one of said stub shaft members provided thereon,

a bracket member engaging said cover door stub shaft member and pivotally engaged to said support stand, and said cover door stub shaft extending beyond said bracket and being formed to provide crank handle for rotating said trash receptive member and for elevating the cover door end thereof and opening said cover door upon the application of downward pressure on the terminal end thereof with the hinged side of said cover door disposed downwardly.

2. A trash burner comprising a cylindrical trash receptive member having opposite ends thereof closed, stub shaft members provided at opposite ends of said trash receptive member and in axial alignment, a support stand receptive of said stub shaft members and providing means of supporting said trash receptive member for rotation about a horizontal axis, a hinged cover door provided in one end of said trash receptive member and hinged near a side edge thereof, the hinge having a lower position and an inverted upper position depending upon the rotational position of the trash receptive member, said hinged cover door having one of said stub shaft members provided thereon, a bracket member engaging said one stub shaft member and pivotally engaged with said bracket member and providing a crank handle for rotating said trash receptive member, for elevating the cover door end thereof, and for opening said cover door upon the application of downward pressure on the terminal end of said one stub shaft member when said hinge disposed in its lower position.

3. A trash burner as claimed in claim 2 in which the other stub shaft is removable from the support stand for elevating the end of the trash receptive member opposite said cover door end for dumping the burned refuse out said cover door.

4. A trash burner comprising a cylindrical drum having its opposite ends closed, a hinged cover at one end, one stub shaft mounted on the hinged cover and another stub shaft mounted on the other end of the drum, a stand rotatably supporting the stub shafts for rotation of the drum about a horizontal axis, a bracket pivotally mounted on the stand and engaging said one stub shaft so that the latter can be pulled to open said one drum end by disengaging the cover therefrom and to tilt said one drum end above the horizontal for filling the drum.

5. A trash burner as claimed in claim 4 in which said other stub shaft is removable from the stand so that it can be lifted to tilt said other drum end above the horizontal and to open said other drum end above the horizontal and

5

to open said one drum end by disengaging the same from the cover for dumping the drum of its contents.

References Cited by the Examiner

UNITED STATES PATENTS

256,718	4/1882	McCaffrey	34—130
602,555	4/1898	Davis et al.	263—34
836,222	11/1906	Smith	110—18

5

6

962,148	6/1910	Jackson	110—18
1,103,956	7/1914	Goeden	110—18
1,116,473	11/1914	Oberle.	
2,528,447	10/1950	Miles	110—18
2,938,450	5/1960	Carpenter	220—19 X

FREDERICK L. MATTESON, JR., *Primary Examiner.*

H. B. RAMEY, *Assistant Examiner.*