Oct. 28, 1958 W. M. DWYER 2,857,862

TRASH BURNERS

Filed Jan. 31, 1956 2 Sheets-Sheet 1

Fig. 1.

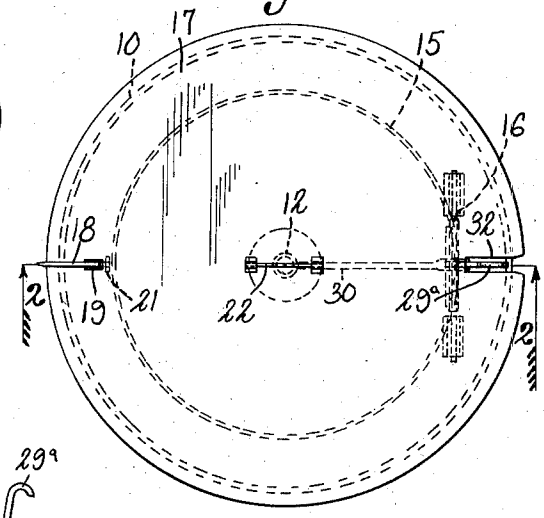


Fig. 3.

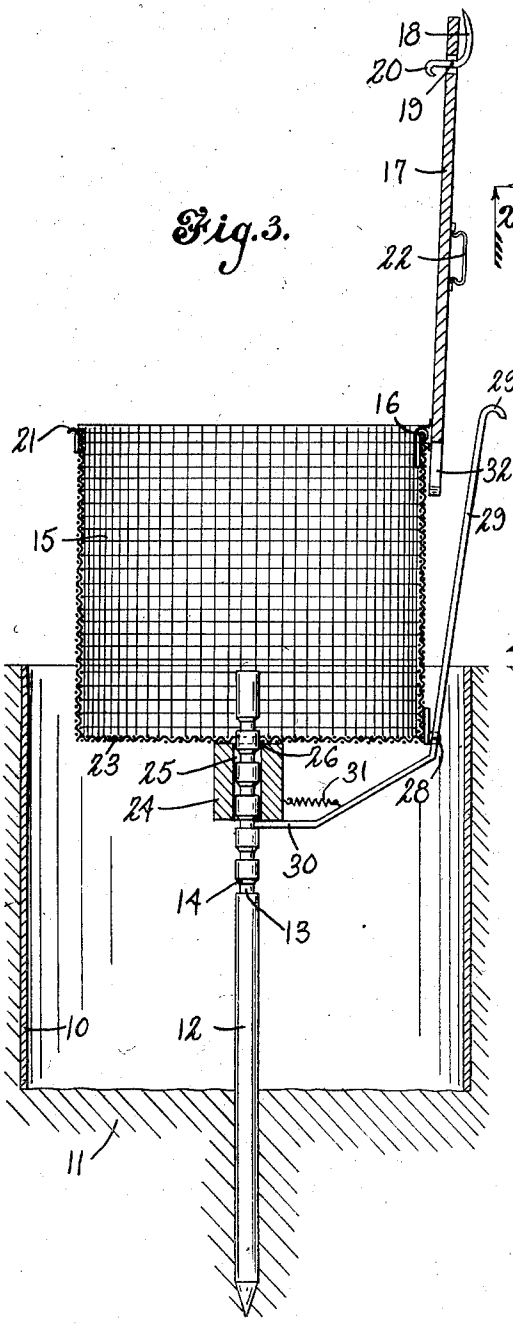
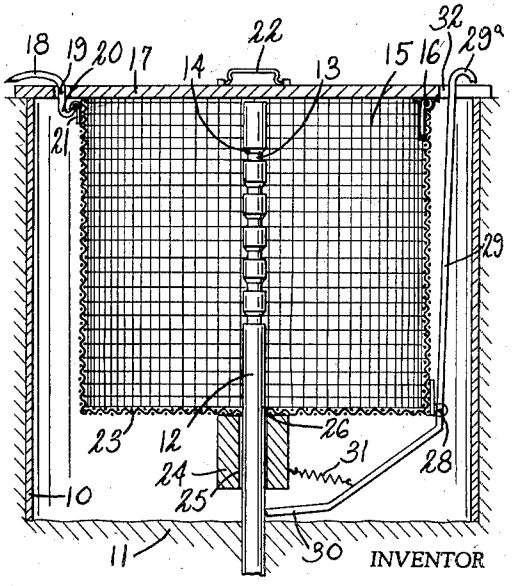


Fig. 2.



INVENTOR

Walter M. Dwyer

BY Rockwell & Barthelow

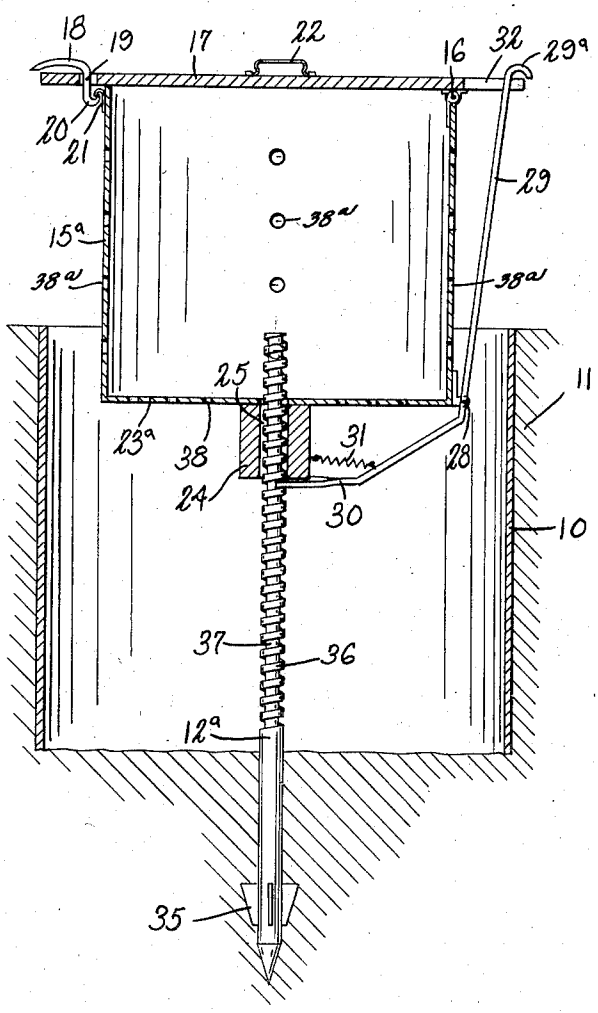
ATTORNEYS

Oct. 28, 1958 W. M. DWYER 2,857,862

TRASH BURNERS

Filed Jan. 31, 1956 2 Sheets-Sheet 2

Fig. 4.



INVENTOR

Walter M. Dwyer

BY Rochlin & Berthelot

ATTORNEYS

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TRASH BURNERS

Walter M. Dwyer, Hamden, Conn.

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7 Claims. (Cl. 110—18)

This invention relates to trash burners and more particularly to a concealed type of trash burner, the construction being such that the container for holding the trash to be burned may be concealed in a casing buried in the ground so that the container will be out of sight.

Trash burners are usually provided in the form of covered receptacles of wire or open work formation so that air will be admitted to the trash or other material placed within the container to be burned therein. Such receptacles are usually set on the surface of the ground and are of unsightly appearance.

It is contemplated by the present invention to provide a casing which may be sunk into the ground, the casing being of such size as to provide space for the burner receptacle to be lowered therein in a concealed position. Provision is made for raising the burner from the casing or pit within the ground to an exposed position for use, and means are provided to hold the receptacle in its raised or operative position so that the trash may be placed therein and burned with the receptacle in this position. Thereafter the receptacle may be readily lowered so as to be concealed.

The receptacle is provided with a cover which in this instance is hinged to the receptacle, the cover being of such dimension that it will project beyond the edges of the receptacle and rest against the upper edge of the casing when the receptacle is in its lowermost position to support the latter from the casing. Also the cover is provided with means by which it may be secured in closed position and also provided with a handle so that by grasping the handle the cover may be raised to its elevated or operative position.

One object of the present invention is to provide a trash burner which may normally be concealed within a pit or casing sunk into the ground and elevated and held in its raised position for use.

Still another object of the invention is to provide a trash burner of the character described above which shall be of very simple construction and economical to manufacture.

Still another object of the invention is to provide a trash burner consisting of a casing adapted to be sunk into the ground and a trash-holding receptacle adapted to be concealed below the ground within the casing and also adapted to be raised to, and held in, elevated position for use.

Still another object of the invention is to provide a trash burner of the character described wherein the receptacle is provided with a cover, in this instance hinged to the receptacle, the cover being securable to the receptacle so that the latter may be raised by the cover.

To these and other ends the invention consists in the novel features and combinations of parts to be hereinafter described and claimed.

In the accompanying drawings:

Fig. 1 is a top plan view of a trash burner embodying my invention;

Fig. 2 is a sectional view on line 2—2 of Fig. 1 showing the receptacle in its concealed position;

Fig. 3 is a view similar to Fig. 2 but showing the receptacle in raised position and the cover in open position; and

Fig. 4 is a sectional view of a trash burner of slightly modified form.

To illustrate one embodiment of the invention, there

is shown in the drawings a hollow casing 10 which may be of cylindrical or other desired shape in cross section, this casing being shown as being mounted within a hole or pit within the ground 11 so that its upper edge is substantially flush with the upper surface of the ground. This casing, as shown, is open at both upper and lower ends although it may be provided with a closed bottom if desired.

A peg or pin 12 is driven into the ground substantially centrally of the casing 10, this pin extending upwardly to a point substantially flush with the upper end of the casing. The pin, as shown in Figs. 2 and 3, is provided with a plurality of annular recesses or grooves 13 and with beveled or upwardly flaring or tapering portions 14 above these grooves. The purpose of the grooves will be hereinafter described.

The trash receptacle is shown at 15. This receptacle may be of any desired form but is shown as a wire receptacle or basket so as to admit air through its wall.

The receptacle will usually be of the same cross sectional shape as the casing 10 but will be somewhat smaller in dimensions, both as to height and width or diameter, so that it may be received within the casing, as shown in Fig. 2, and a certain amount of space provided between the receptacle and the casing for mechanism to be later described.

To the receptacle 15 is hinged at 16 a cover 17, the latter being of material of such thickness as to be fairly rigid. At the side of the cover opposite the hinge there is provided a latch member 18 pivoted at 19 and having a hook or catch 20 engageable with an abutment 21 secured on the receptacle so that the cover 17 may be latched in closed position, as shown in Fig. 2, as well as being movable to open position about the hinge 16, as shown in Fig. 3.

The diameter of the cover is somewhat larger than that of the receptacle and is also as large or slightly larger than the casing 10 so that when the cover is latched to the receptacle and the latter lowered into the casing, as shown in Fig. 2, the outer edge of the cover will rest upon the upper edge of the casing 10 and support the receptacle in this position. The cover may be provided with a handle 22 by which the receptacle may be raised.

The receptacle is provided with a bottom wall 23 as well as side walls and secured to the bottom wall is a collar 24 having a through opening 25 snugly but slidably receiving the pin 12. The bottom 23 of the receptacle will also have an opening 26 registering with the opening 25 in the collar 24 so that the upper end of the pin may be received within the receptacle when the latter is in its concealed position.

Pivoted at 28 to the lower portion of the receptacle is a bent lever having a handle portion 29 and a latching portion 30. The end of the portion 30 is adapted to be received in any one of the annular grooves or recesses 13 of the pin 12 to hold the receptacle in an elevated position to which it may be raised. A spring 31 secured at one end to the collar 24 and at the other end to the lever normally urges the latching portion 30 toward the pin 12 so that it will spring into one of the grooves 13 when it is in registration therewith. The cover 17 is provided with a notch or recess 32 to receive the upper end of the handle 29 when the cover is in closed position, as shown in Figs. 1 and 2.

In use the receptacle will normally be in the concealed position within the casing 10, as shown in Fig. 2, with the cover 17 latched to the receptacle and supporting the latter from the casing. The spring 31 is somewhat extended due to the fact that the lower end 30 of the latching lever is opposite a portion of the pin of full diameter.

When it is desired to use the burner, the handle 22

may be grasped and the receptacle raised by a direct upward pull to an elevated position. During this operation the latch member **30** will spring successively into the grooves **13** under urging of the spring **31** but will ride upwardly into the next groove depending upon the position to which the receptacle is elevated due to the beveled or tapered portions **14**. When the receptacle has been raised to the desired position, the latching end **30** of the lever will hold it in this position, as shown in Fig. 3.

The cover may now be unlatched by turning the latch member **18** about its pivot and the cover raised to the position shown in Fig. 3. The receptacle may then be filled with the trash to be burned, the cover lowered, and the trash burned. At the end of this operation the operator may grasp the hooked end **29a** of the handle **29** and lift the receptacle slightly while moving the handle inwardly toward the receptacle from the position shown in Fig. 3 to release the end **30** from the groove **13** in which it is engaged and the receptacle will drop downwardly by gravity to its concealed position shown in Fig. 2, wherein the cover **17** will rest upon the upper edge of the casing **10**. It will also be noted that if desired the receptacle may be completely removed from the casing by an upward pull thereon so that the ashes or other material remaining after the burning of the trash may be emptied, although it will not be necessary to do this often.

In Fig. 4 of the drawings, I have shown a somewhat modified form of my invention, which modification principally resides in the construction of the pin for holding the receptacle in raised position. In this form of my invention a pin **12a** is provided having the same function as the pin **12** previously described. This pin is likewise driven into the ground substantially centrally of the casing **10**, and at its lower end may be provided with vanes or wings **35** to prevent any tendency of the pin to turn after it has been driven into place.

The pin **12a** is provided with a relatively coarse screw thread **36** and a relatively deep groove **37**, and the end **30** of the latching lever (this lever being similar to the one shown in Figs. 1 and 3) is shaped to engage within the groove **37** to act as a nut.

In case the receptacle is fairly heavy, it may be desirable to elevate it by the mechanism shown in Fig. 4 rather than by a direct pull. When the receptacle shown in Fig. 4 is in its lowermost position, the cover **17** of the receptacle rests upon the upper edge of the casing **10** as before and the end **30** of the latching lever is within the lower end of the groove **37** of the threaded pin. By grasping the handle **22**, the receptacle may be rotated and thus drawn up to its elevated position shown in Fig. 4. It will be held by friction in this position by the member **30** so that the trash may be burned while the receptacle is elevated.

When the burning operation has been completed, the lever handle **29** may be moved inwardly toward the receptacle, and the end **30** of the lever will be withdrawn from the groove **37** to permit the receptacle to drop by gravity to its lowermost position.

As illustrated although not of essence to the invention, the receptacle **15a** in Fig. 4 may be of sheet metal construction instead of open-work construction as shown in Figs. 1 to 3 of the drawings, and the bottom **23a** of the receptacle may be provided with openings **38** for the admission of air to support combustion. Similar openings **38a** may, of course, be provided in the side wall of the receptacle if desired. Except in the respects noted, the construction shown in Fig. 4 is like that shown in Figs. 1 to 3.

While I have shown and described some preferred embodiments of my invention, it will be understood that it is not to be limited to all of the details shown, but is capable of modification and variation within the spirit of the invention and within the scope of the claims.

What I claim is:

1. A trash burner comprising a casing, open at its upper end, adapted to be set into the ground, a container having a perforate side wall structure and a bottom telescopically received in said casing, a vertical pin adapted to be fixed in the ground substantially centrally of the casing and extending slidably into the container through an opening in its bottom, and cooperating means on said pin and container to hold the latter in an elevated position with respect to the casing, said means comprising a groove in said pin, and a latch member pivoted adjacent the lower end of the container and adapted to engage in said groove, said latch member having an operating portion extending upwardly along the container wall for manual engagement.

2. A trash burner comprising a casing, open at its upper end, adapted to be set into the ground, a container having a perforate side wall structure and a bottom telescopically received in said casing, a vertical pin fixed substantially centrally of the casing and extending into the container through an opening in its bottom, cooperating means on said pin and container to hold the latter in an elevated position with respect to the casing, said means comprising a groove in said pin, and a lever pivotally secured to the container adjacent the lower end thereof, said lever having a latching member adapted to engage in said groove, and a handle portion extending upwardly from its pivot along the container wall for manual engagement.

3. A trash burner comprising a casing, open at its upper end, adapted to be set into the ground, a container having a perforate side wall structure and a bottom telescopically received in said casing, a vertical pin adapted to be fixed in the ground substantially centrally of the casing and extending into the container through an opening in its bottom, cooperating means on said pin and container to hold the latter in an elevated position with respect to the casing, said means comprising a plurality of vertically spaced annular grooves on said pin and a lever pivoted to the container adjacent the lower end thereof, said lever having a latching end below its pivot to engage in a selected one of said grooves and a handle portion extending upwardly from its pivot to a point without the casing for manual engagement.

4. A trash burner as in claim 1 wherein the container is provided with a hinged cover, and the edges of said cover projecting beyond the container to rest upon the upper edge of the casing and support the container in concealed position within the casing.

5. A trash burner as in claim 1 wherein the container is provided with a hinged cover, the edges of said cover projecting beyond the container to rest upon the upper edge of the casing and support the container in concealed position within the casing, and latching means for securing said cover in closed position whereby the container may be elevated by an upward pull upon the cover.

6. A trash burner as in claim 2 wherein the casing is provided with a hinged cover, said cover projecting laterally beyond the container so as to rest upon the casing wall when the container is in concealed position within the casing, and the projecting portion of said cover being provided with a slot through which the lever handle extends.

7. A trash burner as in claim 1 wherein the container is provided with a hinged cover extending laterally beyond the wall of the container to rest upon the upper edge of the casing when the container is received therein and support the latter in concealed position.

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