Feb. 20, 1951 F. W. GARDNER 2,542,920

TRASH BURNER

Filed Sept. 2, 1948

FIG. 1.

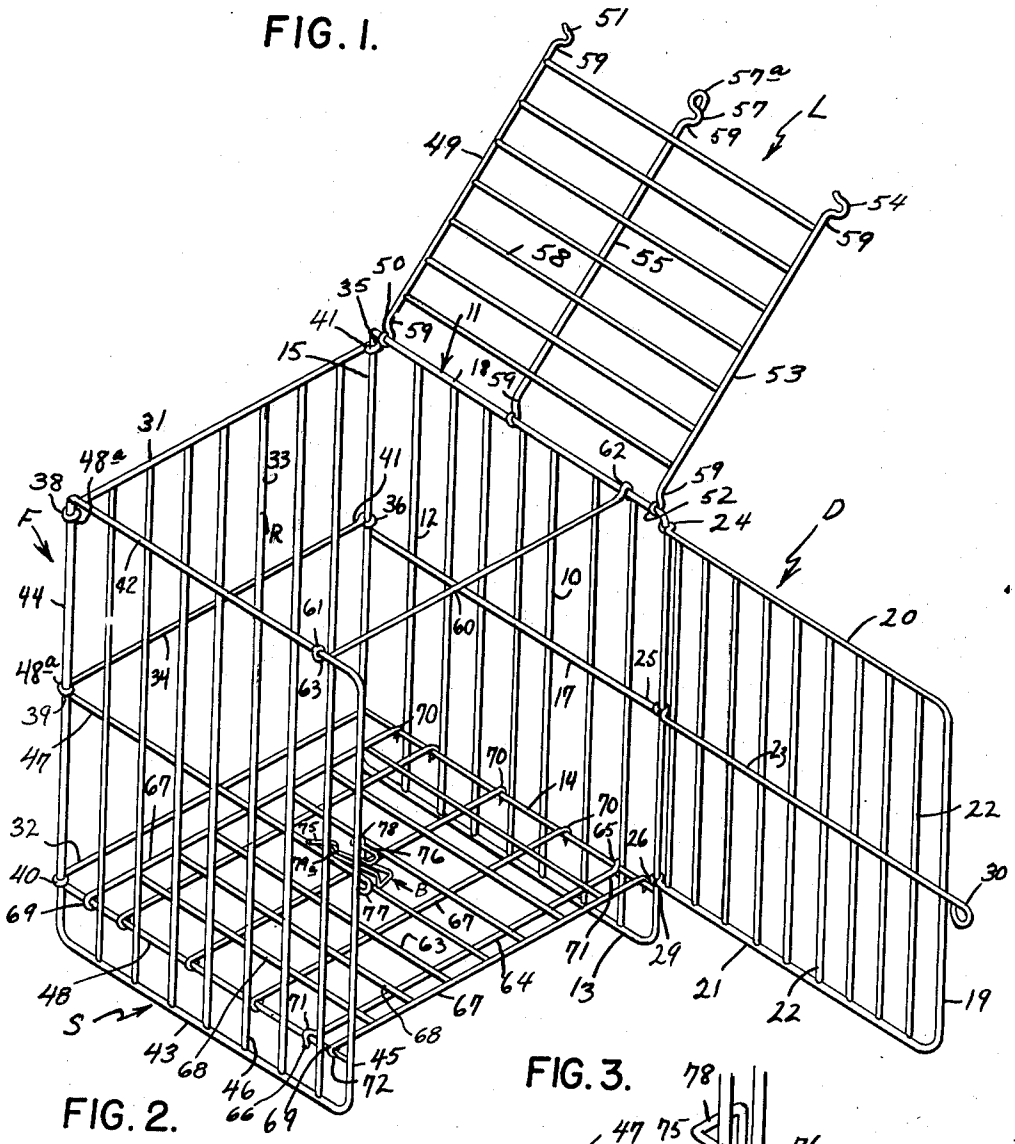


FIG. 2.

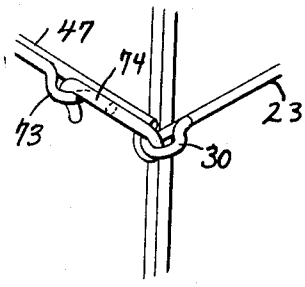


FIG. 3.

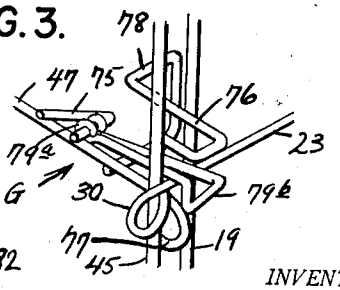
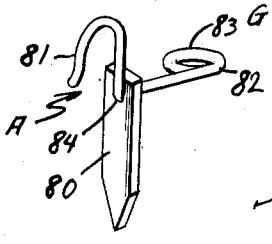


FIG. 4.



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TRASH BURNER

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7 Claims. (Cl. 220—6)

1

My invention relates to trash burners and more particularly to trash burners adapted to be used also for the purpose of supporting and retaining refuse cans or the like and it is an object of my invention to provide a trash burner which is constructed so that it may be folded together into a compact shape for storing or shipping purposes.

Another object of my invention is to provide a trash burner which will afford ease in cleaning and removal of loose debris or refuse cans through a side opening.

Another object of my invention is to provide a trash burner of the character indicated above, which is adapted to be secured in place in a back yard or the like by means of anchor stakes.

Other objects of my invention may appear in the following specification describing my invention with reference to the accompanying drawing illustrating a preferred embodiment of my invention.

In order that my invention may be better understood, I will now proceed to describe the same with reference to the accompanying drawings, wherein:

Figure 1 is a view in perspective of a trash burner constructed in accordance with an embodiment of the invention with certain of the members in open position;

Figure 2 is a fragmentary view in perspective illustrating a means for holding the door closed;

Figure 3 is a fragmentary view in perspective of another means for holding the door closed and as illustrated in Figure 1; and

Figure 4 is a fragmentary view in perspective of a detachable stake means for holding the burner in working position.

It is, however, to be understood that my invention is not to be limited or restricted to the exact construction and combination of parts described in the specification and shown in the drawing but that such changes and modifications may be made which fall within the scope of the claims appended hereto.

The trash burner forming the subject matter of my invention comprises a side wall 10 made from a substantially rectangular heavy wire frame 11, in which a plurality of evenly spaced vertical wire rods 12 is mounted, for instance, by welding. At a comparatively short distance above the lower transverse frame member 13, a horizontal transverse wire rod 14 is provided for a purpose to be described later and is secured to the vertical wire rods 12 and the vertical members 15 and 16 of the side wall frame 11. An intermediate

2

horizontal wire rod 17 is fastened to these vertical wire rods and side wall frame members approximately half way between the horizontal top frame member 18 and the horizontal transverse wire rod 14.

A door D consists of a U-shaped frame made from heavy wire and comprises a vertical end member 19, a horizontal top member 20 and a horizontal bottom member 21. A plurality of vertical evenly spaced wire rods 22 is secured to the top and bottom door frame members 20 and 21 and an intermediate horizontal wire rod 23 is secured to the vertical door end member 19 and the vertical wire door rods 22 approximately centrally between their ends. The free ends of the top door frame member 20, the bottom door frame member 21 and of the intermediate horizontal wire rod 23 are formed into hinge eyes 24, 25 and 26 respectively surrounding the vertical front member 16 of the side wall frame 11. The necks 27, 28 and 29 of the hinge eyes 24, 25 and 26 respectively are offset outwardly so that the door may be folded back against the outside of the side wall 10. The free end portion of the intermediate horizontal rod 23 of the door D extends beyond the vertical door end member 19 and a latch loop or handle 30 is formed on this end portion.

A rear wall R consists of a horizontal top member 31, a horizontal bottom member 32, a horizontal intermediate member 34 and a plurality of vertical equally spaced wire rods 33. The vertical wire rods 33 are secured to the horizontal members 31, 32 and 34. The length of the rods 33 is equal to the length of the vertical rods 22 of the door D. The ends of the three horizontal rear wall members 31, 34 and 32 extend beyond the outermost vertical rear wall rods 33 and are shaped into hinge eyes 35, 36, 37, 38, 39 and 40 respectively. The hinge eyes 35, 36 and 37 surround the vertical rear frame member 15 of the side wall 10 and are offset forwardly or inwardly as shown at 41, so that the rear wall R can be folded forwardly against the inside of the side wall 10.

A second side wall S is constructed similar to the first named side wall 10 and comprises a frame F of the same size as the side wall frame 11 having a horizontal top member 42, a horizontal bottom member 43, a vertical rear member 44 and a vertical front member 45. A plurality of vertical equally spaced wire rods 46 are secured by welding to the top and bottom side wall frame members 42 and 43 respectively. A horizontal wire rod 48 is welded onto the vertical

side frame members 44 and 45 and the vertical wire rods 46 at the same level as the horizontal wire rod 14 on the first mentioned side wall 10. Approximately half way between the top side wall frame member 42 and the horizontal wire rod 48, an intermediate or latch rod 47 is welded onto the vertical side frame members 44 and 45 and to the vertical side wall rods 46. The hinge eyes 38, 39 and 40 on the rear wall R surround the vertical rear member 44 of the side wall frame F. These hinge eyes are offset rearwardly or outwardly as shown at 48a, so that the side wall S can be folded back against the outside of the rear wall R.

A lid L has a rear end rod 49, provided on one of its end portions with a hinge eye 50 and on its other end portion with a hook 51. The hinge eye 50 surrounds the top side frame member 18 adjacent its rear end, and a hinge eye 52 formed on one end of a forward end rod 53 surrounds the top side frame member 18 adjacent its forward end. The other of the forward end rods 53 is shaped into a hook 54. An intermediate hook rod 55 has on one of its ends a hinge eye 56 surrounding the top side frame member 18 intermediate its ends, and on the other end of the hook rod 55 a hook 57 and handle 57a is formed. The length of the three hook rods is such that the hooks thereon may engage the top frame member 42 of the side wall frame F, when the two side walls 10 and S are arranged to extend forwardly at right angles from the rear wall R. A plurality of equally spaced wire rods 58 are secured to the three hook rods, and the hinge eyes and hooks on said hook rods are offset as shown at 59 in upward direction when the lid L is closed and the hooks engage the side wall S. This permits the lid to be folded downwardly and outwardly to rest against the inside surface of the door D when the latter is folded back against the side wall 10.

An interlocking hook rod 60 is provided with a hinge eye 61 on one of its ends and with a hook 62 on its other end. The hinge eye surrounds the top side frame member 42 of the side wall S and the length of the interlocking hook rod 60 is such, that the hook 62 of said hook rod can engage the top member 18 of the side wall 10 when the two side walls are arranged to extend forwardly at right angles from the rear wall. The hinge eye 61 and the hook 62 on the interlocking rod 60 are offset upwardly as shown at 63 when said rod is arranged to interlock the two side walls S and 10, so that the lid L can extend over said interlocking rod when the lid is positioned to cover the trash burner according to my invention. In folded position the interlocking rod 60 folds outwardly over the top of the side wall S and R holding the outsides of S and R together.

Another interlocking rod 64 is hingedly mounted to the forward end portion of the horizontal wire rod 14 of the side wall 10 by means of a hinge eye 65 formed on one end of said interlocking rod, which is so long that a hook 66, formed on its other end, can engage the horizontal wire rod 47 of the side wall S.

The hinge eye 65 and the hook 66 on the interlocking rod 64 are offset upwardly as shown at 71. When said rod is arranged to interlock the two side walls S and 10, the bottom B can extend over said interlocking rod when the bottom is placed in working position as shown. In folded position the interlocking rod 64 folds upward and rests against the inside of the side wall 10 and is held in place between the side walls 10 and R.

A bottom B consists of a plurality of hook rods 67 supporting a plurality of wire rods 68 spaced equally apart from each other and extending at right angles to the hook rods 67, to which they are secured by spot welding. Each of said hook rods 67 has on one of its end portions a hook 70. The hinge eye 69 surrounds the horizontal wire rod 48 of the side wall S and the length of the hook rods 67 is such that the hooks 70 can engage the horizontal wire rod 14 of the side wall 10 to support the bottom B in horizontal position when the trash burner is arranged in unfolded working position. The hinge eye 69 and the hooks 70 on the hook rods 67 are offset upwardly as shown at 72, so that the bottom B can be folded upwardly to rest against the inside of the side wall S.

The above described trash burner may be equipped with means for releasably securing the door D in closed position, when the trash burner is set up in working position. In Figure 2, a latch eye 73 is shown secured to the latch rod 47 of the side wall S and a common latch hook 74 is linked to the loop 30 on the door D so that it can engage the latch eye 73 to hold the door in closed position.

In Figures 1 and 3 a gravity type latch G is shown which comprises a pivot member 75 welded or otherwise secured to the latch rod 47. A top guide 76 is welded or otherwise secured at two points to the vertical member 45 and a bottom guide 77 is integrally formed on the latch rod 47. These guides are provided to guide the door latch rod 23 into locking position.

A gravity type latch G is formed from a wire rod having its two end portions formed into eyes 78 surrounding the pivot member 75. The other portion of the latch 79 is formed into a latch hook 79 which is raised by the rod 23 when closing the door D. When the rod 23 of the door D passes beyond the lower point of the latch hook 79 the latch member G falls over the rod 23, thus holding the door in closed position.

A top and bottom stop and side guide 80 for the latch 79 is formed as an integral part of the guide 76; the other end portion of the guide and stops 80 are welded or otherwise secured to the horizontal rod 47 of the side wall S.

Trash may be placed either loosely or piled in containers inside the above described burner and can be ignited. The grids forming the sides, the lid and bottom and the door of the burner will permit a thorough incineration of the trash and at the same time will prevent accidental damage to persons standing by. If desired, the trash burner may be secured in place by means of a plurality of anchor stakes A having pointed shanks 89 equipped at their upper ends with hooks 81. The shanks are driven into the ground so that the hooks 81 engage the horizontal rods 14 and 18 of the side walls 10 and S respectively.

The hooks 81 are made of heavy wire rods which pass through the stakes 89 and are pivotally supported as at 84. On the other end of the rod 81 a foot pedal 83 is formed. The hooks 81 may be released by depressing the pedals 83 or engaged by raising the pedals 83. In the released position the pedals 83 strike the edge of the stakes 89 at 82 thus forming a stop for the releasing motion.

The above description shows clearly that my trash burner can be folded together by pivoting the door D rearwardly against the side wall 10,

swinging of the lid L downwardly against the door D, releasing the interlocking hook rods 60 and 64 from the horizontal rods 18 and 48 respectively, pivoting the bottom B upwardly against the side wall S, swinging this side wall outwardly and rearwardly against the rear wall R and pivoting the rear wall forwardly against the side wall 10. When the trash burner is arranged in this position, it has the size of one of the side walls and the thickness of the six elements forming the burner so that it does require only a minimum of space for storing or shipping purposes.

I claim:

1. A trash burner including a side wall, a door hingedly secured to the front edge portion of said side wall, a lid hingedly secured to the top edge of said side wall, a rear wall hingedly mounted on the rear edge of the side wall, a second side wall hingedly connected with the rear wall and a bottom hingedly connected with the second side wall, the lower ends of said door and said rear wall terminating substantially in the plane of the said bottom and the like ends of said side walls extending an appreciable distance below the same to support the bottom above the ground and to allow access to the space beneath the latter from the front and rear of the burner structure.

2. A trash burner as set forth in claim 1, wherein the walls, the door, the lid and the bottom are formed in the shape of grids, the door consisting of a U-shaped frame having a vertical edge member, a horizontal top member and a horizontal bottom member, a plurality of vertical rods secured to the horizontal frame members and an intermediate horizontal member secured to the vertical frame member and the vertical rods, all horizontal elements being provided on one of their respective ends with a hinge eye hingedly surrounding the front member of a frame of the first mentioned side wall, said frame being made from a wire rod.

3. A trash burner as set forth in claim 1, wherein the walls, the door, the lid and the bottom are formed in the shape of grids, the door consisting of a U-shaped frame having a vertical edge member, a horizontal top member and a horizontal bottom member, a plurality of vertical rods secured to the horizontal frame members and an intermediate horizontal member secured to the vertical frame member and the vertical rods, all horizontal elements being provided on one of their respective ends with a hinge eye hingedly surrounding the front member of a frame of the first mentioned side wall, said frame being made from a wire rod, said hinge eyes being offset outwardly to permit the door to rest flatly onto the side wall.

4. A trash burner as set forth in claim 1, wherein the walls, the door, the lid and the bottom are formed in the shape of grids, the door consisting of a U-shaped frame having a vertical edge member, a horizontal top member and a horizontal bottom member, a plurality of vertical rods secured to the horizontal frame members and an intermediate horizontal member secured to the vertical frame member and the vertical rods, all horizontal elements being provided on one of their respective ends with a hinge eye hingedly surrounding the front member of a frame of the first mentioned side wall, said frame being made from a wire rod, said hinge eyes being offset outwardly to permit the door to rest flatly onto the side wall, the rear wall consisting of a horizontal top rod, a horizontal bottom rod, a horizontal intermediate rod and a plurality of vertical rods secured to the horizontal rods, each horizontal rod having on one of its ends a hinge eye offset forwardly relative to the corresponding rod and hingedly surrounding the rear vertical frame member of the first mentioned side wall.

5. A trash burner as set forth in claim 1, wherein the walls, the door, the lid and the bottom are formed in the shape of grids, the door consisting of a U-shaped frame having a vertical edge member, a horizontal top member and a horizontal bottom member, a plurality of vertical rods secured to the horizontal frame members and an intermediate horizontal member secured to the vertical frame member and the vertical rods, all horizontal elements being provided on one of their respective ends with a hinge eye hingedly surrounding the front member of a frame of the first mentioned side wall, said frame being made from a wire rod, said hinge eyes being offset outwardly to permit the door to rest flatly onto the side wall, the rear wall consisting of a horizontal top rod, a horizontal bottom rod, a horizontal intermediate rod and a plurality of vertical rods secured to the horizontal rods, each horizontal rod having on one of its ends a hinge eye offset forwardly relative to the corresponding rod and hingedly surrounding the rear vertical frame member of the first mentioned side wall, and on its other end a hinge eye offset rearwardly to the corresponding rod, the side walls consisting of a rectangular frame centrally located horizontal rod, a lower horizontal rod located adjacent the bottom frame member and a plurality of vertical rods secured to the horizontal members, the secondly named hinge eyes hingedly surrounding the rear vertical frame member of the second wall.

6. A trash burner as set forth in claim 1, wherein the lid consists of a front hook rod, a rear hook rod and an intermediate hook rod, and a plurality of straight rods secured to the hook rods and extending at right angles thereto, each hook rod having a hinge eye on one of its ends and hingedly surrounding the top frame member of the first named side wall, and a hook on the other end of each hook rod, adapted to engage the horizontal upper frame member of the second side wall, the hinge eyes and the hooks being offset upwardly to the relative hook rods.

7. A trash burner as set forth in claim 1, wherein the bottom consists of a plurality of hook rods and a plurality of straight rods secured to the hook rods and extending at right angles thereto, each hook rod having a hinge eye on one of its ends and a hook on its other end, the hinge eyes hingedly surrounding a lower horizontal rod on the second side wall and the hooks being adapted to engage a lower horizontal rod on the first named side wall.

FRED W. GARDNER.

REFERENCES CITED

The following references are of record in the file of this patent:

UNITED STATES PATENTS

Number	Name	Date
753,942	Wallace	Mar. 8, 1904
923,725	Sterrett	June 1, 1909
1,833,857	Reese	Nov. 24, 1931