A wood-burning fire pit apparatus includes a bowl and an air flow member. The bowl defines an air flow opening and a wood-receiving opening adapted to support wood received in the wood-receiving opening. The air flow member extends from a lower region of a top surface of the bowl and toward an upper region of the top surface of the bowl. The air flow member defines a central bore in fluid communication with the air flow opening of the bowl. The air flow member defines one or more apertures therethrough in fluid communication with the central bore to enable air to travel into the air flow opening of the bowl and out of the one or more apertures of the air flow member into the wood-receiving opening of the bowl to facilitate burning of the wood received in the wood-receiving opening.
WOOD-BURNING FIRE PIT APPARATUS WITH AIR FLOW MEMBER

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of U.S. Provisional Application Ser. No. 61/869,293, filed Mar. 24, 2014, the entirety of which is hereby incorporated by reference herein.

TECHNICAL FIELD

[0002] The present disclosure generally relates to fire pit apparatuses, and more particularly, to wood-burning fire pit apparatuses.

BACKGROUND

[0003] Fire pits have been around for many years and are designed to contain a fire and prevent it from spreading. Fire pits can be physically dug in the ground or may be prefabricated from materials such as stone, brick, and/or metal. In general, fire pits provide warmth and ambience to an outdoor venue such as a patio area and are typically designed to be fueled by either wood or propane cylinders. More specifically, wood-burning fire pit apparatuses include separate wood-supporting grates that are positioned on a bowl of the wood-burning fire pit apparatus a few inches above the base of the bowl to enable wood to be ignited and burned within the bowl. Due to the ability to remove the wood-supporting grates from the bowl, the grates are susceptible to being lost and/or misplaced. In addition, over time these wood-supporting grates can rust and/or otherwise become unusable from wear and tear requiring a user to buy replacement wood-supporting grates. The presently disclosed wood-burning fire pit apparatuses remedy some of the disadvantages of wood-burning fire pit apparatuses with wood-supporting grates.

SUMMARY

[0004] According to one aspect, a wood-burning fire pit apparatus includes a bowl and an air flow member coupled to the bowl to enable air to travel into the bowl through the air flow member to burn wood received in the bowl. The air flow member may be integrally formed with the bowl. In some embodiments, the air flow member is welded, or adapted to be welded, to the bowl. In certain embodiments, the air flow member is fastened, or adapted to be fastened, to the bowl.

[0005] The bowl has a top surface and a bottom surface. The top surface includes an upper region and a lower region and includes an inner portion that extends between the upper and lower regions of the top surface. The inner portion defines a wood-receiving opening and is adapted to support wood received in the wood-receiving opening. An air flow opening is defined between the lower region of the top surface of the bowl and the bottom surface of the bowl.

[0006] The air flow member extends from the lower region of the top surface of the bowl and toward the upper region of the top surface of the bowl. The air flow member defines a central bore in fluid communication with the air flow opening of the bowl. The air flow member defines at least one aperture therethrough. The at least one aperture is in fluid communication with the central bore to enable air to travel into the air flow opening of the bowl and out of the at least one aperture of the air flow member into the wood-receiving opening of the bowl to facilitate burning of the wood received in the wood-receiving opening.

[0007] In some embodiments, the at least one aperture of the air flow member is defined through the top wall. In embodiments, the at least one aperture of the air flow member is defined through the least one sidewall. The air flow member can include a plurality of apertures. In some embodiments, at least one of the plurality of apertures is defined through the top wall of the air flow member and at least one of the plurality of apertures is defined through the at least one sidewall of the air flow member. The at least one aperture can extend through an upper terminal end of the air flow member.

[0008] The air flow member includes a top wall and at least one sidewall. The at least one sidewall includes an upper portion and a lower portion. The top wall is secured to the upper portion of the at least one sidewall and is disposed transverse to the at least one sidewall so that the top member and the at least one sidewall define the central bore. The lower portion of the at least one sidewall is secured to the lower region of the top surface of the bowl.

[0009] In embodiments, the lower portion of the at least one sidewall of the air flow member includes at least one flange extending outwardly from the at least one sidewall in a direction transverse to the at least one sidewall. The wood-burning fire pit can include at least one fastener. The at least one flange of the air flow member can define at least one first fastener opening thereof. The bowl may define at least one second fastener opening. The at least one first fastener opening and the at least one second fastener opening are adapted to receive the at least one fastener to secure the air flow member to the bowl. In embodiments, the at least one fastener can be received in the at least one first fastener opening and the at least one second fastener opening to secure the air flow member to the bowl.

[0010] The bowl defines a longitudinal axis that extends through the top and bottom surfaces of the bowl. The air flow opening may be aligned with the longitudinal axis of the bowl. In embodiments, the air flow opening is centrally located on the bowl.

[0011] According to another aspect, the present disclosure relates to a wood-burning fire pit system including the bowl and the air flow member. The air flow member is adapted to secure to the lower region of the top surface of the bowl and has at least one sidewall and a top wall secured to the at least one side wall. The at least one sidewall and the top wall define a central bore. At least one of the top wall and the at least one sidewall define at least one aperture therethrough in fluid communication with the central bore, wherein securement of the air flow member to the bowl enables air to travel into the air flow opening of the bowl and out of the at least one aperture of the air flow member into the wood-receiving opening of the bowl to facilitate burning of the wood received in the wood-receiving opening.

[0012] According to yet another aspect, the present disclosure relates to a method for burning wood in a fire pit apparatus. The method includes positioning wood on a bowl of the fire pit apparatus about an air flow member extending from a top surface of the bowl into a wood-receiving opening of the bowl so that air can flow into the wood-receiving opening of the bowl through an upper terminal end of the air flow member and beneath the wood, and igniting a fire in the wood-receiving opening of the bowl to burn the wood directly on the top surface of the bowl. When positioning the wood on the bowl,
the method can involve arranging the wood to enable air to flow into the bowl through at least one sidewall of the air flow member.

[0013] Further details and aspects of exemplary embodiments of the present disclosure are described in more detail below with reference to the appended figures.

BRIEF DESCRIPTION OF THE DRAWINGS

[0014] The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate embodiments of the present disclosure and, together with a general description of the present disclosure given above, and the detailed description of the embodiment(s) given below, serve to explain the principles of the present disclosure, wherein:

[0015] FIG. 1 is a top, perspective view of an exemplary wood-burning fire pit apparatus with a wood-supporting grate;

[0016] FIG. 2 is a perspective view of one embodiment of a wood-burning fire pit apparatus in accordance with the principles of the present disclosure;

[0017] FIG. 3A is an enlarged, top perspective view of a portion of the wood-burning fire pit apparatus of FIG. 2;

[0018] FIG. 3B is an enlarged, bottom perspective view of a portion of the wood-burning fire pit apparatus of FIG. 2;

[0019] FIG. 4A is a top perspective view of a portion of another embodiment of a wood-burning fire pit apparatus of the present disclosure;

[0020] FIG. 4B is a bottom perspective view of a portion of the wood-burning fire pit apparatus of FIG. 4A;

[0021] FIG. 5 shows a perspective view of an embodiment of a bowl of a wood-burning fire pit apparatus of the present disclosure;

[0022] FIGS. 6-10 illustrate different embodiments of air flow members of wood-burning fire pit apparatuses of the present disclosure;

[0023] FIG. 11A is a perspective view of another embodiment of a wood-burning fire pit apparatus of the present disclosure;

[0024] FIG. 11B is a perspective view of still another embodiment of a wood-burning fire pit apparatus of the present disclosure;

[0025] FIG. 12A is an enlarged, top perspective view of a portion of the wood-burning fire pit apparatus of FIG. 11A;

[0026] FIG. 12B is an enlarged, bottom perspective view of a portion of the wood-burning fire pit apparatus of FIG. 11A;

[0027] FIG. 13A is an enlarged, top perspective view of a portion of the wood-burning fire pit apparatus of FIG. 11A;

[0028] FIG. 13B is an enlarged, bottom perspective view of a portion of the wood-burning fire pit apparatus of FIG. 11B; and

[0029] FIG. 14 shows a perspective view of another embodiment of a bowl of a wood-burning fire pit apparatus of the present disclosure.

DETAILED DESCRIPTION

[0030] Embodiments of the presently disclosed wood-burning fire pit apparatuses, systems, and methods are described in detail with reference to the drawings, in which like reference numerals designate identical or corresponding elements in each of the several views.

[0031] FIG. 1 depicts an exemplary wood-burning fire pit apparatus 10 having a bowl 12 and a wood-supporting grate 14 positioned within the bowl 12.

[0032] FIG. 2 illustrates a wood-burning fire pit system and/or apparatus in accordance with the principles of the present disclosure. Any of the presently described wood-burning fire pit apparatuses and/or systems can be mounted to any suitable support base such as support base "B".

[0033] With reference to FIGS. 2, 3A, and 3B, one embodiment of a wood-burning fire pit apparatus 100 includes a bowl 110 and an airflow member 120 secured to bowl 110. As can be appreciated, airflow member 120 can be secured to bowl 110 using any suitable known fastening technique such as welding, mechanical fasteners, etc. Bowl 110 includes a top surface 112 and a bottom surface 114. Top surface 112 includes an upper region 112a and a lower region 112b and an inner portion 112c that extends between upper and lower regions 112a and 112b. Inner portion 112c defines a wood-receiving opening 116 and is adapted to support wood received in the wood-receiving opening 116.

[0034] Airflow member 120 includes one or more sidewalls 120a and a top wall 120b secured to the sidewall 120a. Sidewall 120a extends from lower region 112b of top surface 112 of bowl 110 toward upper region 112a of top surface 112 of bowl 110. As depicted in FIG. 3B, airflow member 120 defines a central bore 122 in fluid communication with an airflow opening 118 of bowl 110 formed on an underside of bowl 110. As seen in FIG. 3A, sidewall 120a of airflow member 120 defines one or more apertures 124 therethrough that are in fluid communication with central bore 122 to enable airflow through the underside of bowl 110 into airflow opening 118 of bowl 110 and out of the one or more apertures 124 of airflow member 120 into wood-receiving opening 116 of the bowl 110 on a topside of bowl 110 to facilitate burning of wood received in wood-receiving opening 116.

[0035] Turning now to FIGS. 4A and 4B, one embodiment of a wood-burning fire pit apparatus is illustrated and generally referred to as wood-burning fire pit apparatus 200. Wood-burning fire pit apparatus 200 is similar to wood-burning fire pit apparatus 100. Wood-burning fire pit apparatus 200 (and other embodiments/components of other embodiments described herein) are only described herein to the extent necessary to describe the differences in construction and operation with respect to other embodiments described herein. Wood-burning fire pit apparatus 200 includes a bowl 210, an airflow member 220, and one or more fasteners 230. As can be appreciated, fastener 230 can include any suitable fastener arrangement such as a screw 232 and a nut 234. Bowl 210 includes a top surface 212 and a bottom surface 214. Fastener holes 216 and an airflow opening 218 are defined between top and bottom surface 212 and 214 of bowl 210. Fastener holes 216 are adapted to receive fasteners 230. Airflow member 220 includes one or more sidewalls 222, a top wall 224 secured to sidewall 222, and one or more flanges 226 extending from sidewall 222. Flange 226 defines one or more fastening apertures 226a adapted to receive fasteners 230. Sidewalls 222 define one or more apertures 222a therethrough to enable air to travel into airflow opening 218 of bowl 210 and out of apertures 222a of airflow member 220 into bowl 210 to facilitate burning of wood.

[0036] As seen in FIG. 5, another embodiment of a bowl 300, similar to bowl 200, defines one or more fastener holes 216 disposed around an airflow opening 218. As can be appreciated, any of the presently described bowls can define
any number of fastener holes 216 which can be arranged in any suitable configuration and can have any suitable shape and/or dimension.

[0037] As illustrated in the embodiments of FIGS. 6-10, namely, air flow members 420, 520, 620, 720, and 820 the presently described air flow members, can have any suitable shape, dimension, and/or configuration and may define any number or arrangement of fastener openings 226a and/or apertures 222a defined through any number of side and/or top walls thereof. As can be appreciated, the air flow openings and/or apertures can have any suitable shape, dimension, and/or configuration which can be arranged in any suitable configuration.

[0038] FIGS. 11A, 11B, 12A, 12B, 13A, and 13B provide further illustrative embodiments of wood-burning fire pit apparatuses and/or systems, namely wood-burning fire pit apparatus 900 and wood-burning fire pit apparatus 1000. Wood-burning fire pit apparatus 900 is similar to wood-burning fire pit apparatus 100 and wood-burning fire pit apparatus 1000 is similar to wood-burning fire pit apparatus 200; however, the bowls of fire pit apparatuses 900 and 1000 have a square shape, not a round shape like fire pit apparatuses 100 and 200.

[0039] Similarly, as seen in FIG. 14, another embodiment of a bowl 1100, similar to bowl 300, defines a plurality of fastener holes 216 disposed around an air flow opening 218. Like the bowls of wood-burning fire pit apparatuses 900 and 1000, bowl 1100 has a square shape. As can be appreciated, any of the presently described bowls can have any suitable shape, dimension and/or configuration.

[0040] In some embodiments, the air flow member and the bowl can be integrally formed by any suitable forming process such as stamping, casting, milling, etc.

[0041] Any of the components of the presently described wood-burning fire pit apparatuses and/or systems can be formed of any suitable material known in the art (e.g., brick, metal, ceramic, etc., and/or combinations thereof) using known forming techniques. Additionally and/or alternatively, securing of any of these components can be effectuated using known fastening techniques. Any of these components can include high-heat resistant powder or like material, which may be incorporated into, and/or coated on any suitable surface thereof. In embodiments, high-heat resistant power can be spray painted onto any surface of any of these components, for example, in a flat color.

[0042] Persons skilled in the art will understand that the structures and methods specifically described herein and shown in the accompanying figures are non-limiting exemplary embodiments, and that the description, disclosure, and figures should be construed merely as exemplary of particular embodiments. It is to be understood, therefore, that the present disclosure is not limited to the precise embodiments described, and that various other changes and modifications may be effected by one skilled in the art without departing from the scope or spirit of the disclosure. Additionally, the elements and features shown or described in connection with certain embodiments may be combined with the elements and features of other embodiments without departing from the scope of the present disclosure, and that such modifications and variations are also included within the scope of the present disclosure. Accordingly, the subject matter of the present disclosure is not limited by what has been particularly shown and described.

What is claimed is:
1. A wood-burning fire pit apparatus comprising: a bowl having a top surface and a bottom surface, the top surface including an upper region and a lower region, the top surface including an inner portion that extends between the upper and lower regions of the top surface, the inner portion defining a wood-receiving opening and adapted to support wood received in the wood-receiving opening; an air flow opening defined between the lower region of the top surface of the bowl and the bottom surface of the bowl; and an air flow member extending from the lower region of the top surface of the bowl and toward the upper region of the top surface of the bowl, the air flow member defining a central bore in fluid communication with the air flow opening of the bowl, the air flow member defining at least one aperture therethrough, the at least one aperture in fluid communication with the central bore to enable air to travel into the air flow opening of the bowl and out of the at least one aperture of the air flow member into the wood-receiving opening of the bowl to facilitate burning of the wood received in the wood-receiving opening.

2. The wood-burning fire pit apparatus of claim 1, wherein the air flow member includes a top wall and at least one sidewall, the at least one sidewall including an upper portion and a lower portion, the top wall secured to the upper portion of the at least one sidewall and disposed transverse to the at least one sidewall so that the top member and the at least one sidewall define the central bore, the lower portion of the at least one sidewall secured to the lower region of the top surface of the bowl.

3. The wood-burning fire pit apparatus of claim 2, wherein the at least one aperture of the air flow member is defined through the top wall.

4. The wood-burning fire pit apparatus of claim 2, wherein the at least one aperture of the air flow member is defined through the at least one sidewall.

5. The wood-burning fire pit apparatus of claim 2, wherein the air flow member includes a plurality of apertures.

6. The wood-burning fire pit apparatus of claim 2, wherein at least one of the plurality of apertures is defined through the top wall of the air flow member and at least one of the plurality of apertures is defined through the at least one sidewall of the air flow member.

7. The wood-burning fire pit apparatus of claim 2, wherein the lower portion of the at least one sidewall of the air flow member includes at least one flange extending outwardly from the at least one sidewall in a direction transverse to the at least one sidewall.

8. The wood-burning fire pit apparatus of claim 7, further including at least one fastener, the at least one flange of the air flow member defining at least one first fastener opening therethrough, the bowl defining at least one second fastener opening, the at least one fastener being received in the at least one first fastener opening and the at least one second fastener opening to secure the air flow member to the bowl.

9. The wood-burning fire pit apparatus of claim 1, wherein the air flow member is welded to the bowl.

10. The wood-burning fire pit apparatus of claim 1, wherein the bowl defines a longitudinal axis that extends through the top and bottom surfaces of the bowl, the air flow opening being aligned with the longitudinal axis of the bowl.
11. The wood-burning fire pit apparatus of claim 10, wherein the airflow opening is centrally located on the bowl.

12. The wood-burning fire pit apparatus of claim 1, wherein the airflow member is integrally formed with the bowl, the at least one aperture extending through an upper terminal end of the airflow member.

13. A wood-burning fire pit system comprising:
   a bowl having a top surface and a bottom surface, the top surface including an upper region and a lower region, the top surface including an inner portion that extends between the upper and lower regions of the top surface, the inner portion defining a wood-receiving opening and adapted to support wood received in the wood-receiving opening;
   an airflow opening defined between the lower region of the top surface of the bowl and the bottom surface of the bowl; and
   an airflow member adapted to secure to the lower region of the top surface of the bowl, the airflow member having at least one sidewall and a top wall secured to the at least one side wall, the at least one sidewall and the top wall defining a central bore, at least one of the top wall and the at least one sidewall defining at least one aperture therein, the at least one aperture in fluid communication with the central bore, wherein securing of the airflow member to the bowl enables air to travel into the airflow opening of the bowl and out of the at least one aperture of the airflow member into the wood-receiving opening of the bowl to facilitate burning of the wood received in the wood-receiving opening.

14. The wood-burning fire pit system of claim 13, wherein the at least one sidewall of the airflow member includes an upper portion and a lower portion, the top wall of the airflow member secured to the upper portion of the at least one sidewall and disposed transverse to the at least one sidewall.

15. The wood-burning fire pit system of claim 14, wherein the lower portion of the at least one sidewall of the airflow member includes at least one flange extending outwardly from the at least one sidewall in a direction transverse to the at least one sidewall.

16. The wood-burning fire pit system of claim 15, further including at least one fastener, the at least one flange of the airflow member defining at least one first fastener opening through, the bowl defining at least one second fastener opening, the at least one first fastener opening and the at least one second fastener opening adapted to receive the at least one fastener to secure the airflow member to the bowl.

17. The wood-burning fire pit system of claim 13, wherein the airflow member includes a plurality of apertures.

18. The wood-burning fire pit system of claim 17, wherein at least one of the plurality of apertures is defined through the top wall of the airflow member and at least one of the plurality of apertures is defined through the at least one sidewall of the airflow member.

19. The wood-burning fire pit system of claim 13, wherein the airflow member is adapted to be welded to the bowl.

20. The wood-burning fire pit system of claim 13, wherein the bowl defines a longitudinal axis that extends through the top and bottom surfaces of the bowl, the airflow opening being aligned with the longitudinal axis of the bowl.

21. The wood-burning fire pit system of claim 20, wherein the airflow opening is centrally located on the bowl.

22. A method for burning wood in a fire pit apparatus comprising:
   positioning wood on a bowl of the fire pit apparatus about an airflow member extending from a top surface of the bowl into a wood-receiving opening of the bowl so that air can flow into the wood-receiving opening of the bowl through an upper terminal end of the airflow member and beneath the wood; and
   igniting a fire in the wood-receiving opening of the bowl to burn the wood directly on the top surface of the bowl.

23. The method of claim 22, wherein positioning the wood on the bowl includes arranging the wood to enable air to flow into the bowl through at least one sidewall of the airflow member.

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