ABSTRACT

A modular fire pit insert for placement within a pre-constructed structure. The modular fire pit includes a vertical column defining a central aperture with the vertical column including a plurality of slots for receipt of slats. The vertical column top side being attached to a horizontal flange sized to provide resting support for the fire pit within the structure. The horizontal flange include a plurality of apertures to receive accessories.
MODULAR FIRE PIT AND METHOD FOR USE

CROSS REFERENCE TO RELATED APPLICATIONS

[0001] Not Applicable

FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT

[0002] Not Applicable

SEQUENCE LISTING, A TABLE, OR A COMPUTER PROGRAM

[0003] Not Applicable

FIELD OF THE INVENTION

[0004] The present invention relates to a fire pit insert for containing a fire.

BACKGROUND OF THE INVENTION

[0005] A fire pit has long been a gathering place for families and friends to enjoy each other’s company and the outdoors. Typically, a fire pit is placed onto the ground within a ring, placed within a stand-alone fireplace, or constructed directly into or on a patio or other outdoor structure.

[0006] Often when a fire pit is built within a permanent or semi-permanent structure a stone block or brick is used to form the exterior of the fire pit. In the construction of these pits, the blocks are stacked to form a vertical structure surrounding an open aperture where the fire is placed. These vertical structures are often formed in a circular, rectangular, or square shape.

[0007] To construct a fire pit of this type, a user will select the type and shape of block to be used. If a circular fire pit is desired, a curved block is used. After the block is selected, the blocks are stacked to form the fire pit to the desired size and shape. The blocks can be secured to each other using a concrete adhesive, mortar, or other securing elements. Upon completion of the structure, users will sometimes place a fire pit insert within this structure. These inserts are typically constructed out of steel and are sized to be received within the structure. The inserts provide protection to the structure from fire damage and provide added structural support.

[0008] Although the traditional fire pit insert provides protection and stability, it offers little in the way of customization and adaptability for multiple uses. Therefore there is a need for a fire pit insert that offers the ability to customize the use of the fire pit to accommodate various uses such as cooking. Preferably, this fire pit is provided in universal sizes and shapes to allow for ease of manufacture and allow for the construction of the fire pit structure with standard sized landscape blocks.

SUMMARY OF THE INVENTION

[0009] A modular fire pit insert is provided that allows for adaptability and customization to maximize a user’s fire pit experience. The modular fire pit insert is designed for placement within a pre-constructed structure having a pre-determined size. The modular fire pit insert includes two main structural elements; a vertical column defining a central aperture and a horizontal flange. The vertical column extends a height of the modular fire pit and forms a continuous sidewall of the modular fire pit with the vertical column having a top edge, a bottom edge, an exterior side, and an interior side opposite the exterior side, wherein the interior side is adjacent to the central aperture.

[0010] The vertical column includes a plurality of slots throughout the sidewall extending from the interior side to the exterior side of the vertical column. The slots are arranged in a grid pattern and in alignment on opposed sides of the vertical column. The slots are sized and shaped to receive a rail. The rail having a width and a pair of ends defining a length of the rail. The rail ends sized to be removably received within the slot. The length of the rail corresponding to a distance between opposed slots of the vertical column, wherein the rail extends across the central aperture. The rail provides a removable horizontal structure to the modular fire pit and when more than one rail is used the combination of multiple rails provides additional structure for the placement of accessories and objects.

[0011] The horizontal flange is in communication with top edge and extends perpendicular and outward from the vertical column opposite the central aperture, wherein the horizontal flange is in contact with a top of the pre-constructed structure and provides resting support for the modular fire pit when the modular fire pit is placed within the pre-constructed structure.

[0012] The horizontal flange includes a plurality of accessory apertures. The accessory apertures extend through the horizontal flange and are spaced around a perimeter of the horizontal flange adjacent to the central aperture. The accessory apertures provide access to a cavity between the modular fire pit and the pre-constructed structure when the modular fire pit is placed within the structure. This cavity and the accessory apertures allow for the placement of a variety of accessories for use with the modular fire pit into the accessory aperture.

[0013] In the preferred embodiment of the present invention, the accessory apertures are circular and sized to receive accessories having a cylindrical post for placement within this circular sized aperture. Preferably, to further support the placement of accessories, an accessory bracket is provided. The accessory bracket is removably affixed to the exterior side of the vertical column in alignment with an individual accessory aperture. Although several types and styles of accessories may be used with the modular fire pit these accessories may include, but not be limited to; grills, tables, rotisseries, or other similar accessories.

[0014] In the preferred embodiment of the present invention, the modular fire pit is provided in a plurality of separate pieces and assembled into the final complete structure. The separate pieces are included with a multitude of fastening apertures to receive a fastener for assembly. Preferably, these fastening apertures are square shaped and located adjacent to an edge of the piece to receive a similar shaped shank on the fastener to aid in assembly of the complete structure.

[0015] In the preferred embodiment of the present invention, the vertical column is provided in a shape to nest within the shape of the pre-constructed structure. These shapes include but are not limited to; circular, square, and rectangular. The shapes used correspond to the shape of the pre-constructed structure.

[0016] To use the device according to the present invention, a user will construct a structure corresponding to the shape of the modular fire pit purchased. Preferably, this structure will be created using a standard sized landscape block having a length of twelve (12) inches and a height of four (4) inches.
These blocks will then be stacked to the form the shape and height of the structure by forming an exterior wall defining an inner cavity. After the structure is completed, the modular fire pit insert will be placed within this structure with the vertical column received within the inner cavity and the horizontal flange resting along a top of the structure adjacent to the inner cavity.

BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING (S)

[0017] The accompanying drawings are included to provide a further understanding of the present invention and are incorporated in and constitute a part of this specification.

[0018] The drawings illustrate exemplary embodiments of the present invention and together with the description serve to further explain the principles of the invention. Other aspects of the invention and the advantages of the invention will be better appreciated as they become better understood by reference to the Detailed Description when considered in conjunction with accompanying drawings, and wherein:

[0019] FIG. 1 is an isometric view of the modular fire pit insert in use, according to the present invention;

[0020] FIG. 2 is an isometric view of a circular shaped embodiment of the device, according to the present invention;

[0021] FIG. 3 is an exploded view of the device, according to the present invention;

[0022] FIG. 4 is an exploded isometric view of the accessories of the device, according to the present invention;

[0023] FIG. 5 is an isometric view of the device with rails, according to the present invention; and

[0024] FIG. 6 is an isometric view of a rotisserie accessory of the device in use, according to the present invention.

DETAILED DESCRIPTION OF THE INVENTION

[0025] Referring now to FIG. 1-6, a modular fire pit insert 10 is provided that allows for adaptability and customization to maximize a user’s fire pit experience. The modular fire pit insert 10 is designed for placement within a pre-constructed structure 20 having a pre-determined size. The modular fire pit insert 10 includes two main structural elements: a vertical column 100 defining a central aperture and a horizontal flange 200. The vertical column 100 extends a height of the modular fire pit 10 and forms a continuous sidewall of the modular fire pit 10 with the vertical column having a top edge 101, a bottom edge 102, an exterior side 103, and an interior side 104 opposite the exterior side 103, wherein the interior side 104 is adjacent to the central aperture.

[0026] The vertical column 100 includes a plurality of slots 110 thorough the sidewall extending from the interior side 104 to the exterior side 103 of the vertical column 100. The slots 110 are arranged in a grid pattern and in alignment on opposed sides of the vertical column 100. The slots 110 are sized and shaped to receive a rail 120. The rail 120 having a width and a pair of ends 121 defining a length of the rail 120. The rail ends 121 sized to be removably received within the slot 110. The length of the rail 120 corresponding to a distance between opposed slots 110 of the vertical column 100, wherein the rail 120 extends across the central aperture. The rail 120 provides a removable horizontal structure to the modular fire pit 10 and when more than one rail 120 is used the combination of multiple rails 120 provides additional structure for the placement of accessories and objects, such as a grill 121.

[0027] The horizontal flange 200 is in communication with top edge 101 and extends perpendicular and outward from the vertical column 100 opposite the central aperture, wherein the horizontal flange 200 is in contact with a top of the pre-constructed structure 30 and provides resting support for the modular fire pit 10 when the modular fire pit 10 is placed within the pre-constructed structure 30.

[0028] The horizontal flange 200 includes a plurality of accessory apertures 201. The accessory apertures 201 extend through the horizontal flange 200 and are spaced around a perimeter of the horizontal flange 200 adjacent to the central aperture. The accessory apertures 201 provide access to a cavity between the modular fire pit 10 and the pre-constructed structure 30 when the modular fire pit 10 is placed within the structure 30. This cavity and the accessory apertures 201 allow for the placement of a variety of accessories 40 for use with the modular fire pit into the accessory aperture 201.

[0029] In the preferred embodiment of the present invention, the accessory apertures 201 are circular and sized to receive accessories 40 having a cylindrical post for placement within this circular sized aperture 201. Preferably, to further support the placement of accessories 40, an accessory bracket 210 is provided. The accessory bracket 210 is removably affixed to the exterior side 103 of the vertical column 100 in alignment with an individual accessory aperture 201. Although several types and styles of accessories 40 may be used with the modular fire pit 10 these accessories may include, but not be limited to: grills 401, tables 402, rotisseries 403, or other similar accessories.

[0030] In the preferred embodiment of the present invention, the modular fire pit 10 is provided in a plurality of separate pieces 130 and assembled into the final complete structure. The separate pieces 130 are included with a multitude of fastening apertures 131 to receive a fastener 132 for assembly. Preferably, these fastening apertures 131 are square shaped and located adjacent to an edge of the piece 130 to receive a similar shaped shank on the fastener 132 to aid in assembly of the complete structure.

[0031] The separate pieces 130 comprise components of both the vertical column 100 and the horizontal flange 200 within one singular piece of material. These pieces 130 are then assembled with the fasteners 132 and fastening apertures 130. When the modular fire pit 10 is constructed in a square or a rectangular shape a corner flange piece 203 and a corner brace 105 are used to complete the structure. As a rectangular or square shape has four corners, a total of four corner flange pieces 203 and four corner braces 105 are used. The corner flange piece 203 and corner brace 105 include fastening apertures 131 to receive fasteners 132. Preferably, the fastening apertures 131 and fasteners 132 are sized the same throughout the modular fire pit 10 to aid in assembly and production.

[0032] In the preferred embodiment of the present invention, the vertical column 100 is provided in a shape to nest within the shape of the pre-constructed structure 30. These shapes include but are not limited to: circular, square, and rectangular. The shapes used correspond to the shape of the pre-constructed structure.

[0033] To use the modular fire pit 10 according to the present invention, a user will construct a structure corresponding to the shape of the modular fire pit 10 purchased. Preferably, this structure will be created using a standard sized landscape block having a length of twelve (12) inches and a height of four (4) inches. These blocks will then be stacked to form the shape and height of the structure 30 by...
forming an exterior wall defining an inner cavity. After the structure is completed, the modular fire pit insert 10 will be placed within this structure 30 with the vertical column 100 received within the inner cavity and the horizontal flange 200 resting along a top of the structure 30 adjacent to the inner cavity.

[0034] In the preferred embodiment, the modular fire pit 10 is constructed out of steel due to its durability and fire resistance. Although steel is the preferred material, other heat resistant materials may be used.

[0035] While the invention has been described with reference to an exemplary embodiment(s), it will be understood by those skilled in the art that various changes may be made and equivalents may be substituted for elements thereof without departing from the scope of the invention. In addition, many modifications may be made to adapt a particular situation or material to the teachings of the invention without departing from the essential scope thereof. Therefore, it is intended that the invention not be limited to the particular embodiment(s) but that the invention will include all embodiments falling within the scope of the appended claims.

What is claimed is:
1. A fire pit insert for placement into a pre constructed structure, the fire pit insert comprising:
   a vertical column, the vertical column defining a central aperture, the vertical column having a top edge, a bottom edge opposite the top edge, and a plurality of slots; and a horizontal flange, the horizontal flange in communication with the top edge and extending perpendicular and opposite the central cavity, the horizontal flange including a plurality of accessory apertures.
2. A device as in claim 1, wherein the accessory apertures are evenly spaced around a perimeter of the horizontal flange.
3. A device as in claim 1, wherein the slots are in alignment on opposed sides of the central aperture and sized to receive a rail, the rail extending across the central aperture to provide support.
4. A device as in claim 1, wherein the central aperture is circular in shape.
5. A device as in claim 1, wherein the central aperture is square in shape.
6. A device as in claim 1, wherein the central aperture is rectangular in shape.
7. A device as in claim 1, wherein the modular fire pit is assembled from multiple pieces.
8. A device as in claim 2, wherein the accessory apertures are sized to receive co-operating accessories.
9. A fire pit insert for placement into a pre constructed structure, the fire pit insert comprising:
   a vertical column, the vertical column defining a central aperture, the vertical column having a top edge, a bottom edge opposite the top edge, and a plurality of slots, the slots aligned in a grid pattern around the central aperture and sized to receive a rail; and
   a horizontal flange, the horizontal flange in communication with the top edge and extending perpendicular and opposite the central cavity, the horizontal flange including a plurality of accessory apertures, the accessory apertures spaced around the horizontal flange adjacent to the vertical column, the accessory apertures providing access to the space between the fire pit insert and the pre-constructed structure.
10. A device as in claim 9, wherein the accessory apertures are evenly spaced around a perimeter of the horizontal flange.
11. A device as in claim 9, wherein the slots are in alignment on opposed sides of the central aperture, the rail extending across the central aperture to provide support.
12. A device as in claim 9, wherein the central aperture is circular in shape.
13. A device as in claim 9, wherein the central aperture is square in shape.
14. A device as in claim 9, wherein the modular fire pit is assembled from multiple pieces.
15. A device as in claim 9, wherein the accessory apertures are sized to receive co-operating accessories.