(54) Title: PORTABLE COOKING SYSTEM

(57) Abstract: A portable cooking assembly is provided having a plurality of removable cooking surfaces. The cooking surfaces can each be positioned and locked within the cooking assembly for cooking of foods thereon. Additionally, the cooking surfaces are stackable within the cooking assembly allowing for ease of storage and transport.

Fig. 2
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PORTABLE COOKING SYSTEM

FIELD OF THE INVENTION

[0001] The present disclosure relates to portable cooking devices.

BACKGROUND OF THE INVENTION

[0002] Portable cooking appliances have grown in popularity in recent years. There are a number of types of portable cooking appliances commonly used: gas cooking appliances and electric cooking appliances, and solid fuel cooking appliances. Gas cooking appliances employ at least one gas burner to cook food that is supported on a grate above the burner(s). The fuel source for gas grills is typically liquid propane or natural gas. Electric cooking appliances can utilize an electrical heating element integrated into the cooking surface. A power supply is connected to the cooking appliance to provide power to the heating element. Regardless of the type, the cooking appliance has a cooking chamber that includes a cover and a cooking surface. By movement of the cover, the cooking chamber is movable between an open position and a closed position. The cooking chamber may be in the closed position when the food is being cooked by the cooking appliance. Preferably, the cover is in the closed position when the cooking appliance is not in use, and instead is stored between uses.

BRIEF DESCRIPTION OF THE DRAWINGS

[0003] A more complete understanding of the present invention, and the attendant advantages and features thereof, will be more readily understood by reference to the following detailed description when considered in conjunction with the accompanying drawings wherein:
FIG. 1 depicts a front perspective view of a portable cooking assembly of the present disclosure including a removable grill cooking surface;

FIG. 2 depicts a front perspective sectional view of the portable cooking assembly;

FIG. 3 depicts a front perspective view of the portable cooking assembly without the grill cooking surface;

FIG. 4 depicts a front perspective view of a grill cooking surface for use with the portable cooking assembly of FIG. 1;

FIG. 5 depicts a front perspective view of the portable cooking assembly of the present disclosure including a removable griddle cooking surface;

FIG. 6 depicts a front perspective view of a griddle cooking surface for use with the portable cooking assembly of FIG. 1;

FIG. 7 depicts a front perspective view of the portable cooking assembly including stackable grill and griddle surfaces; and

FIG. 8 depicts a front perspective sectional view of the portable cooking assembly including a stacked grill and griddle.

DETAILED DESCRIPTION OF THE INVENTION

The present disclosure provides a portable cooking assembly having a plurality of interchangeable cooking surfaces. The cooking surfaces can include a grill surface, griddle surface, and the like, each of which can be removably connected to a bottom portion of the cooking assembly. Alternatively, a cooking container, such as a cooking pot can be removably positioned on the bottom portion.
Referring now to the drawing figures in which like reference designators refer to like elements, there is shown in Fig. 1 and 2 a portable cooking assembly 10 of the present disclosure. The portable cooking assembly 10 generally includes a bottom portion 12 defining a cooking chamber 14, where the bottom portion 12 includes a support structure (legs) 16 for supporting the cooking assembly 10 on a level surface. A cover (lid) 18 is hingedly connected to the bottom portion 12, where the cover 18 is rotatably positionable between an open and a closed position. A cover locking mechanism 22 is positioned on the bottom portion 12, and can releasably engage the cover 18 in the closed position, locking the cover 18 to bottom portion 12 in the closed position.

Referring also to Fig. 3, the cooking chamber 14 includes a drip pan 24 positioned therein. A burner 26 is centrally positioned in the cooking chamber 14, protruding through a central aperture 28 in the drip pan 24. The burner 26 is fluidly connected to a low pressure regulator 30, where a removable fuel source, for example a propane fuel canister, can be removable connected to the low pressure regulator 30 at a connection port 31, opposite the burner 26. The low pressure regulator 30 can control the amount of fuel provided to the burner 26.

A grill 32 is removably positioned generally within the cooking chamber 14, above the burner 26 and drip pan 24. The grill 32 defines a cooking surface upon which food is placed during operation of the portable cooking assembly 10. The grill 32 can be removably secured to the bottom portion 12 with a locking mechanism 34.

Referring also to Fig. 4, the grill 32 includes a top portion 36, defining the cooking surface, and sidewalls 38 extending downwardly from the top portion 36. When the grill 32 is positioned within the cooking chamber 14, the sidewalls 38 of the grill 32 are
supported by the drip pan 24. Opposite end portions 40 of the sidewalls 38 include locking slots 42 for engagement of the locking mechanisms 34.

[0017] A locking mechanism 34 is positioned on each of the end portions 44 of the bottom portion 12, and includes a locking arm 46 which is movable between a locked and unlocked position. The locking arm 46 is slidingly mounted within a support frame 48 affixed to the bottom portion 12, and includes a tab portion 50 for grasping and moving by a user. In the locked position, the locking arms 46 are positioned through the locking slots 42 in the grill sidewall 38, locking the grill 32 to the bottom portion 12. In the unlocked position, the locking arms 46 are removed from the locking slots 42 in the grill sidewall 38, unlocking and allowing the grill 32 to be removed from the bottom portion 12.

[0018] Referring to Fig. 5, the portable cooking assembly 10 can further include a griddle 52. Similar to the grill 32, the griddle 52 can be removably positioned generally within the cooking chamber 14, above the burner 26 and drip pan 24. The griddle 52 defines a cooking surface upon which food is placed during operation of the portable cooking assembly 10. The griddle 52 can be removably secured to the bottom portion 12 with the locking mechanism 34.

[0019] Referring also to Fig. 6, the griddle 52 includes a top portion 54, defining the cooking surface, and sidewalls 56 extending downwardly from the top portions 54. When the griddle 52 is positioned within the cooking chamber 14, the sidewall 56 of the griddle 52 is supported by the drip pan 24. Opposite end portions 58 of the sidewall 56 include locking slots 60 for engagement of the locking arms 46 of locking mechanisms 34. In the locked position, the locking arms 46 are positioned through the locking slots 60 in the griddle sidewall 56, locking the griddle 52 to the bottom portion 12. In the unlocked position, the
Sockings arms 46 are removed from the locking slots 60 in the griddle sidewalls 56, unlocking and allowing the griddle 52 to be removed from the bottom portion 12.

[0020] In a manner similar to that described above for the grill 32 and griddle 52, additional accessories (not shown) may be utilized with the cooking assembly 10 such as a wire cooking grid, a grate, a skillet, a double broiler, a warming dish, a slow cooker and the like. Each of these accessories may comprise locking slots which will accommodate the locking arms 46 to removably secure the accessory to the bottom portion 12 or the accessory may be set atop the grill 32, griddle 52 or the like. Additional cooking accessories may include a cooking container. In one example, the cooking container can take the form of a cooking pot, with lid, that is positionable on the bottom casing. To aid in the support of the cooking pot, a permanent or removable cooking rack can be positioned within the cooking chamber, being support within the drip pan. A permanent cooking rack can be an integral part of the drip pan. Alternatively, the cooking rack can be removably placed on the drip pan. The cooking pot can be supported on the cooking rack for cooking.

[0021] Referring to FiGS. 7 and 8, the grill 32 and the griddle 52 are stackable on the bottom portion 12 of the portable cooking assembly 10. In an embodiment, the griddle sidewalls 56 are configured such that the griddle 52 can be positioned over the grill 32, allowing the grill 32 to be nested under and within the griddle 52. In the nested position, the locking slots 42 and 60 on the grill 32 and the griddle 52 are aligned. In this manner, when both the grill 32 and griddle 52 are positioned within the bottom portion 12, the grill and griddle locking slots 42 and 60 are aligned with the locking mechanisms 34. The alignment of the locking slots 42 and 60 with the locking mechanism 34 allow for the positioning of the locking arms 46 through both the grill and griddle locking slots 42 and 60, securing the grill
32 and griddle 52 to the bottom portion 12. The cover 18 can be rotated closed and locked over the secured grill 32 and griddle 52, allowing for compact storage.

[0022] In the above embodiment, the griddle 52 is positioned over the grill 32. However it is contemplated that the grill 32 can be positioned over the griddle 52, nesting the griddle 52 under the grill 32. Similar to the above, in the nested position, the locking slots 42 and 60 on the grill 32 and the griddle 52 are aligned. In this manner, when both the grill 32 and griddle 52 are positioned within the bottom portion 12, the grill and griddle locking slots 42 and 60 are aligned with the locking mechanisms 34. The alignment of the locking slots 42 and 60 with the locking mechanism 34 allow for the positioning of the locking arms 46 through both the grill and griddle locking slots 42 and 60, securing the grill 32 and griddle 52 to the bottom portion 12. The cover 18 can be rotated closed and locked over the secured grill 32 and griddle 52, allowing for compact storage.

[0023] The stackable nature of the grill 32 and griddle 52 within the cover 18 and bottom portion 12 allows for a more compact storage, and an ease of transport. In a similar manner, additional cooking accessories, such as the wire cooking grid, grate, skillet, double broiler, warming dish, slow cooker and the like may be stacked within the cover 18 and bottom portion 12 for ease of storage and transport.

[0024] A soft or hard-sided carry case may also be provided for storage and transport of the cooking assembly 10 wherein the cooking assembly 10 and all related cooking accessories fits within the carry case using the stacking configuration. The carry case may provide a specific storage location for any fuel canisters which are necessary for operation of the cooking assembly 10.

[0025] All references cited herein are expressly incorporated by reference in their entirety.
It will be appreciated by persons skilled in the art that the present invention is not limited to what has been particularly shown and described herein above. In addition, unless mention was made above to the contrary, it should be noted that all of the accompanying drawings are not to scale. A variety of modifications and variations are possible in light of the above teachings without departing from the scope and spirit of the invention, which is limited only by the following claims.
What is claimed is:

1. A portable cooking assembly comprising:
   a bottom portion defining a cooking chamber;
   a cover hingedly attached to the bottom portion, wherein the cover is rotatable between
   and open and a closed position;
   a cooking surface removeably positionable within the cooking chamber; and
   a locking mechanism affixed to the bottom portion and actuateable between a locked
   position, engaging the cooking surface, and an unlocked position, disengaging the cooking
   surface.

2. A portable cooking assembly as set for in claim 1, further comprising a first
   cooking surface and a second cooking surface, wherein the first and second cooking surfaces are
   individually and independently positionable within the cooking chamber.

3. A portable cooking assembly as set forth in claim 2, wherein the first and second
   cooking surfaces are stackable within the cooking chamber.

4. A portable cooking assembly as set forth in claim 3, wherein the locking
   mechanism engages both the first and second cooking surface when stacked in the cooking
   chamber.

5. A portable cooking assembly as set forth in claim 1, wherein said locking
   mechanism is actuated using a sliding movement.

6. A portable cooking assembly as set forth in claim 1, wherein said locking
   mechanism comprises an actuating member, said actuating member movably positionable
   between a locked position and an unlocked position, said actuating member when in the locked
   position passing through an aperture in said cooking surface.
7. A portable cooking assembly as set forth in claim 2, further comprising at least a third cooking surface, wherein the first, second and third cooking surfaces are individually and independently positionable within the cooking chamber.

8. A portable cooking assembly as set forth in claim 7, wherein the first and third cooking surfaces are utilized cooperatively within the cooking chamber.

9. A portable cooking assembly as set forth in claim 7 or 8, wherein said first, second and third cooking surfaces are stackable within the cooking chamber.
FIG. 1
FIG. 3