OVEN RACK STORAGE

ABSTRACT

An oven range appliance is provided including a cabinet extending along a transverse direction between a front side and a rear side. The cabinet defines a cooking chamber, a bottom chamber positioned below the cooking chamber, and a bottom chamber opening defined at the front side of the cabinet. A drawer is positioned at least partially in the bottom chamber, the drawer defining a compartment for the storage of, e.g., cooking utensils. Additionally, a means for storing one or more oven racks in the bottom chamber above the drawer may be provided such that the compartment of the drawer is accessible when one or more oven racks are stored.
FIG. 27

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MOVING A STORAGE DRAWER OUTWARDLY

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MOVING ONE OR MORE RACKS INTO A STORED POSITION
OVEN RACK STORAGE

FIELD OF THE INVENTION

[0001] The present subject matter relates generally to oven range appliances and storage chambers for the same.

BACKGROUND OF THE INVENTION

[0002] Oven range appliances generally include a cabinet that defines a cooking chamber for baking or broiling food items therein, as well as a cooktop positioned at a top portion of the cabinet for grilling, boiling, or frying food items thereon. To heat the cooking chamber, oven range appliances include heating elements, such as a bake heating element positioned at a bottom portion of the cooking chamber and/or a broil heating element positioned at a top portion of the cooking chamber. Oven range appliances additionally include a plurality of mounting features that may extend into the cooking chamber for receiving and holding one or more oven racks during cooking operations. The oven racks can hold food items or cooking utensils within the cooking chamber.

[0003] The cabinet can also define a bottom chamber with a drawer positioned therein. The drawer can, in turn, define a compartment that may be used to store one or more cooking utensils or other cooking accessories for the oven range appliance. Additionally, the one or more oven racks may be stored in the compartment of the drawer. Accordingly, when the user only needs one of the oven racks, or when the user does not need any of the oven racks, such as, for example, when the oven is operated in a cleaning mode, the user may put such oven rack(s) in the storage compartment of the drawer.

[0004] However, when the oven racks are positioned in the storage compartment of the drawer, the oven racks and/or cooking utensils may be exposed to unnecessary wear. For example, the oven racks may hit or scrape the one or more cooking utensils positioned in the compartment of the drawer. Additionally, the one or more oven racks may block access to other items positioned in the compartment of the drawer.

[0005] Accordingly, an oven appliance with one or more features for storing the one or more oven racks in the bottom chamber of the cabinet above the drawer would be beneficial. More particularly, an oven appliance with one or more features for storing the one or more oven racks in the bottom chamber of the cabinet above the drawer such that the compartment of the drawer remains accessible would be particularly useful.

BRIEF DESCRIPTION OF THE INVENTION

[0006] Aspects and advantages of the invention are set forth below in the following description, or may be obvious from the description, or may be learned through practice of the invention.

[0007] In one exemplary embodiment of the present disclosure, an oven range appliance is provided that defines a vertical direction and a transverse direction. The vertical and transverse directions are perpendicular. The oven range appliance includes a cabinet extending along the transverse direction between a front side and a rear side. The cabinet defines a cooking chamber, a bottom chamber positioned below the cooking chamber along the vertical direction, and a bottom chamber opening defined at the front side of the cabinet. Additionally, the oven range appliance includes a drawer positioned at least partially in the bottom chamber and defining a compartment. The drawer is moveable along the transverse direction between an open position and a closed position, at least a portion of the drawer extended outwardly through the bottom chamber opening in the open position. Moreover, the oven range appliance includes means for storing one or more oven racks in the bottom chamber above the drawer such that the compartment of the drawer is accessible when the drawer is in the open position.

[0008] In another exemplary embodiment of the present disclosure, an oven range appliance is provided that defines a vertical direction and a transverse direction. The vertical and transverse directions are perpendicular. The oven range appliance includes a cabinet extending along the transverse direction between a front side and a rear side. The cabinet defines the cooking chamber and a bottom chamber positioned below the cooking chamber along the vertical direction. The oven range appliance additionally includes a drawer positioned at least partially in the bottom chamber and including a first side wall and a second and opposite side wall, each extending along the transverse direction. The drawer defines a compartment. The oven range appliance further includes a first ledge attached to or integral with a top portion of the first side wall, and a second ledge attached to or integral with a top portion of the second side wall. The first and second ledges are configured to support the one or more oven racks above the compartment along the vertical direction.

[0009] In an exemplary aspect of the present disclosure, a method is provided for storing one or more oven racks in a bottom chamber of an oven range appliance defining a vertical direction and a transverse direction. The method includes moving a drawer outwardly along the transverse direction to an open position, exposing the bottom chamber and a compartment of the drawer. The method also includes moving the one or more oven racks into a stored position within the bottom chamber above the drawer such that a compartment of the drawer remains accessible after the storage of the one or more oven racks in the bottom chamber.

[0010] These and other features, aspects and advantages of the present disclosure will become better understood with reference to the following description and appended claims. The accompanying drawings, which are incorporated in and constitute a part of this specification, illustrate embodiments of the disclosure and, together with the description, serve to explain the principles of the disclosure.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] A full and enabling disclosure of the present invention, including the best mode thereof to one skilled in the art, is set forth more particularly in the remainder of the specification, including reference to the accompanying figures, in which:

[0012] FIG. 1 provides a front view of an oven range appliance according to an exemplary embodiment of the present subject matter.

[0013] FIG. 2 provides a side, section view of the exemplary oven range appliance of FIG. 1 taken along Line 2-2 of FIG. 1.

[0014] FIG. 3 provides a perspective view of a bottom chamber of the exemplary oven range appliance of FIG. 1, with a side panel, a ceiling, and a door removed for clarity.

[0015] FIG. 3A provides a perspective close-up view of a support bracket included in the exemplary bottom chamber of FIG. 3.
[0016] FIG. 3B provides another perspective close-up view of a support bracket included in the exemplary bottom chamber of FIG. 3.

[0017] FIG. 4 provides a perspective view of a support bracket included in the exemplary bottom chamber of FIG. 3.

[0018] FIG. 5 provides a perspective view of a bottom chamber of an oven range appliance according to another exemplary embodiment of the present subject matter, with a side panel, a ceiling, and a door removed for clarity.

[0019] FIG. 6 provides a perspective view of features for storing one or more oven racks in the bottom chamber above the drawer according to an exemplary embodiment of the present subject matter.

[0020] FIG. 7 provides another perspective view of the exemplary features for storing one or more oven racks in the bottom chamber above the drawer of FIG. 6.

[0021] FIG. 8 provides a perspective view of a bottom chamber of an oven range appliance according to yet another exemplary embodiment of the present subject matter, with a side panel, a ceiling, and a door removed for clarity.

[0022] FIG. 9 provides a side view of the exemplary bottom chamber of the oven range appliance of FIG. 8, with the side panel removed for clarity.

[0023] FIG. 10 provides a perspective view of certain aspects of features for storing one or more oven racks in the bottom chamber above the drawer according to another exemplary embodiment of the present subject matter.

[0024] FIG. 11 provides a perspective view of certain aspects of features for storing one or more oven racks in the bottom chamber above drawer according to yet another exemplary embodiment of the present subject matter.

[0025] FIG. 12 provides a perspective view of certain aspects of features for storing one or more oven racks in the bottom chamber above the drawer according to another exemplary embodiment of the present subject matter.

[0026] FIG. 13 provides a perspective view of a bottom chamber of an oven range appliance according to another exemplary embodiment of the present subject matter, with a side panel, a ceiling, and a door removed for clarity.

[0027] FIG. 14 provides a perspective view of a bottom chamber of an oven range appliance according to yet another exemplary embodiment of the present subject matter, with a side panel, a ceiling, and a door removed for clarity.

[0028] FIG. 15 provides a perspective view of a tiered storage bracket in accordance with an exemplary embodiment of the present subject matter.

[0029] FIG. 16 provides a perspective view of a rear bracket in accordance with an exemplary embodiment of the present subject matter.

[0030] FIG. 17 provides a perspective view of a storage bracket in accordance with yet another exemplary embodiment of the present subject matter.

[0031] FIG. 18 provides a front view of a bottom chamber of an oven range appliance according to another exemplary embodiment of the present subject matter, with a door removed for clarity.

[0032] FIG. 19 provides a side view of the bottom chamber of the exemplary oven range appliance of FIG. 18, with a side panel removed for clarity.

[0033] FIG. 20 provides a front view of a storage bracket in accordance with an exemplary embodiment of the present subject matter.

[0034] FIG. 21 provides a side view of a bottom chamber of an oven range appliance according to yet another exemplary embodiment of the present subject matter, with a side panel removed for clarity.

[0035] FIG. 22 provides a perspective view of a drawer from the exemplary bottom chamber of FIG. 21.

[0036] FIG. 23 provides a side view of a hook in accordance with an exemplary embodiment of the present subject matter.

[0037] FIG. 24 provides a front view of a bracket in accordance with an exemplary embodiment of the present subject matter.

[0038] FIG. 25 provides a front view of a bottom chamber of an oven range appliance according to still another exemplary embodiment of the present subject matter, with a door removed for clarity.

[0039] FIG. 26 provides a perspective view of a drawer from the exemplary bottom chamber of FIG. 24.

[0040] FIG. 27 provides a flow diagram of an exemplary method for storing one or more oven racks and a bottom chamber of an oven range appliance in accordance with an exemplary aspect of the present subject matter.

DETAILED DESCRIPTION OF THE INVENTION

[0041] Reference now will be made in detail to embodiments of the invention, one or more examples of which are illustrated in the drawings. Each example is provided by way of explanation of the invention, not limitation of the invention. In fact, it will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the scope or spirit of the invention. For instance, features illustrated or described as part of one embodiment can be used with another embodiment to yield a still further embodiment. Thus, it is intended that the present invention covers such modifications and variations as come within the scope of the appended claims and their equivalents.

[0042] FIG. 1 provides a front view of an oven range appliance 10 according to an exemplary embodiment of the present subject matter. FIG. 2 provides a side, section view of oven range appliance 10 taken along Line 2-2 of FIG. 1 (e.g., taken in a plane that is perpendicular to a lateral direction L). It should be understood that oven range appliance 10 is provided by way of example only and is not intended to limit the present subject matter in any aspect. Thus, the present subject matter may be used with other oven range appliance configurations, e.g., that define multiple cooking chambers for the receipt of food and/or having different pan or oven rack arrangements than what is shown in FIGS. 1 and 2.

[0043] As may be seen in FIGS. 1 and 2, oven range appliance 10 defines a vertical direction V, a lateral direction L, and a transverse direction T. The vertical, lateral and transverse directions V, L, and T are mutually perpendicular and form an orthogonal direction system. Oven range appliance 10 includes a cabinet 12. Cabinet 12 extends between a top portion 30 and a bottom portion 31, e.g., along the vertical direction V. Cabinet 12 also extends between a first side portion 32 and a second side portion 33, e.g., along the lateral direction L. Cabinet 12 further extends between a front side portion 34 and a back side portion 35, e.g., along the transverse direction T.

[0044] Cabinet 12 defines an interior cooking chamber 14 and a cooking chamber opening 17. Cooking chamber 14 is defined by an interior surface 15 of cabinet 12 and is configured for the receipt of one or more food items to be cooked.
Cooking chamber opening 17 is positioned at front side portion 34 of cabinet 12 and permits access to cooking chamber 14 of cabinet 12. Oven range appliance 10 also includes a cooking chamber door 16 rotatably mounted to cabinet 12, e.g., with a hinge (not shown). Cooking chamber door 16 of the cooking chamber 14 is positioned at or adjacent to opening 17 of cabinet 12 and is selectively moveable between an open position (not shown) and a closed position (FIGS. 1 and 2). With cooking chamber door 16 in the open position, a user can access cooking chamber 14 of cabinet 12 through opening 17 of cabinet 12. Conversely, cooking chamber door 16 hinders or prevents access to cooking chamber 14 of cabinet 12 through opening 17 of cabinet 12 when cooking chamber door 16 is in the closed position. A handle 18 is mounted to cooking chamber door 16 and assists a user with shifting cooking chamber door 16 between the open and closed positions in order to access cooking chamber 14. For example, a user can pull on handle 18 to adjust cooking chamber door 16 from the closed position to the open position and access cooking chamber 14.

As may be seen in FIG. 2, oven range appliance 10 also includes a seal or gasket 20 that extends between cooking chamber door 16 and cabinet 12, e.g., when cooking chamber door 16 is in the closed position. Gasket 20 assists with maintaining heat and cooking fumes within cooking chamber 14 when cooking chamber door 16 is in the closed position as shown in FIG. 2. Oven range appliance 10 additionally includes a plurality of mounting features for receiving one or more oven racks 22 (see, e.g., FIG. 3) within in cooking chamber. More particularly, the exemplary oven range appliance 10 includes embossed ribs or sliding rails 26 such that the one or more oven racks 22 may be conveniently moved into and out of cooking chamber 14 when cooking chamber door 16 is open. The one or more oven racks 22 may be used to hold or support one or more food items and/or cooking utensils when positioned on the sliding rails 26 within the cooking chamber 14.

A bake or bottom heating element 40 is positioned in cabinet 12, e.g., at a bottom end of the cooking chamber 14. Bottom heating element 40 is used to heat cooking chamber 14 for both cooking and cleaning of oven range appliance 10. The size and heat output of bottom heating element 40 can be selected based on the e.g., the size of oven range appliance 10. Bottom heating element 40 can be any suitable heating element. For example, bottom heating element 40 may be an electric resistance heating element, a gas burner, a microwave heating element, etc.

A broil or top heating element 42 is also positioned in cooking chamber 14 of cabinet 12, e.g., at a top end of the cooking chamber 14. Top heating element 42 is used to heat cooking chamber 14 for both cooking/broiling and cleaning of oven range appliance 10. Like bottom heating element 40, the size and heat output of top heating element 42 can be selected based on, e.g., the size of oven range appliance 10. Top heating element 42 can be any suitable heating element. For example, top heating element 42 may be an electric resistance heating element, a gas burner, a microwave heating element, etc.

The operation of oven range appliance 10, including top and bottom heating elements 40 and 42, is controlled by one or more processing devices (not shown) such as a microprocessor or other device that is in communication with such components. Such processing device (used herein to refer generally to single and/or multiple processing devices) is also in communication with a control panel 36 having a plurality of user inputs 37 and a temperature sensor 38 that is used to measure temperature inside cooking chamber 14. Control panel 36 provides visual information to a user and allows a user to select various options for the operation of oven range appliance 10 via user inputs 37. One or more of a variety of electrical, mechanical or electro-mechanical input devices including rotary dials, push buttons, toggle/rocker switches, and/or touch pads can also be used singularly or in combination as user inputs 37.

Oven range appliance 10 also includes a cooktop portion 44 positioned at top portion 30 of oven range appliance 10. Cooktop portion 44 includes a plurality of heating assemblies 46 positioned below grates 48. Heating assemblies 46 are positioned above cooking chamber 14 of cabinet 12, e.g., along the vertical direction V. Cooking utensils, such as pots, pans, griddles, etc., may be placed on grates 48 and heated with heating assemblies 46 during operation of oven range appliance 10. In FIGS. 1 and 2, heating assemblies 46 are shown as gas burners. However, in alternative exemplary embodiments, heating assemblies 46 may be any suitable heating assembly, such as electric resistance heating elements or induction heating elements.

Referring still to FIGS. 1 and 2, the cabinet 12 further defines a bottom chamber 50 positioned below the cooking chamber 14 along the vertical direction V and a bottom chamber opening 52 at the front side 34 of the cabinet 12. More particularly, the cabinet 12 includes a rear wall 54, a first side panel 56, a second side panel 58 (see, e.g., FIG. 18), a bottom plate 60, and a ceiling 62 defining the bottom chamber 50. The ceiling 62 is positioned at a top side 64 of the bottom chamber 50 and may in certain exemplary embodiments be referred to as an insulation retainer plate for an insulation layer positioned between the bottom chamber 50 and the cooking chamber 14 (not labeled). However, in other exemplary embodiments, the ceiling 62 may instead be any other wall or panel positioned at a top side of the bottom chamber 50.

Referring now FIGS. 1 and 2, as well as to FIG. 3, a perspective view of the exemplary bottom chamber 50 of FIGS. 1 and 2 is provided. More particularly, FIG. 3 provides a perspective view of the exemplary bottom chamber 50 of the oven range appliance 10 with the ceiling 62, the second side panel 58, and a door 98 (discussed below) removed for clarity. As depicted, various structural elements are included within the bottom chamber 50. For example, the exemplary oven range appliance 10 includes a front base frame 66 and a rear base frame 68. The front base frame 66 is positioned proximate to the front side portion 34 of oven range appliance 10, while the rear base frame 68 is positioned proximate to the rear side portion 35 of oven range appliance 10. The front base frame 66 includes a pair of legs 70 extending along the vertical direction V, connected by a joist 72 extending along the lateral direction L (see FIG. 2). Similarly, the rear base frame 68 includes a pair of legs 74 extending along the vertical direction V, connected by a joist 76 extending along the lateral direction L. Additionally, a first base rail 78 and a second base rail 80 (FIG. 3) are positioned within the bottom chamber 50, attached to the bottom plate 60. Each base rail 78, 80 extends along the transverse direction, with the first base rail 78 positioned proximate to the first side portion 32 and the second base rail 80 positioned proximate to the second side portion 33. The first and second base rails 78, 80 may provide structural support for the legs 70, 74 of the front and
rear base frames 66, 68, and the front and rear base frames 66, 68 may provide structural support for, e.g., the cooking chamber 14 and the cooktop 44.

[0052] Leveling legs 82 are provided extending through the bottom plate 60 and first base rail 78 proximate to the first side portion 32 of the cabinet 12 (FIGS. 1 and 2), and leveling legs 84 are provided extending through the bottom plate 60 and the second base rail 80 proximate to the second side portion 33 of the cabinet 12. The leveling legs 82, 84 may allow a user to ensure the oven range appliance 10 extends substantially along the vertical direction V.

[0053] Referring still to FIGS. 1 through 3, a drawer 86 is positioned at least partially in the bottom chamber 50 and is movable along the transverse direction T between an open position (not shown), in which at least a portion of the drawer 86 is extended outwardly along the transverse direction T through the bottom chamber opening 52, and a closed position (FIGS. 1 through 3). The drawer 86 includes a first side wall 88, a second and opposite side wall 90 (see FIG. 3), a bottom wall 92, and a rear wall 94. The first and second side walls 88, 90, bottom wall 92, and rear wall 94 of the drawer 86 define a compartment 96, which may be used to store, e.g., cooking utensils and/or cooking accessories. At least a portion of the compartment 96 of the drawer 86 is exposed when the drawer 86 is in the open position.

[0054] The oven range appliance 10 further includes a bottom chamber door 98 connected to the sidewalls 88, 90 and/or the bottom wall 92 of the drawer 86. The door 98 fits over or into the bottom chamber opening 52 to cover the bottom chamber opening 52 when the drawer 86 is in the closed position. Additionally, a handle 100 is provided for the exemplary embodiment depicted to assist a user in moving the drawer 86 between the open and closed positions. Although the handle 100 is depicted as a separate component, in other exemplary embodiments, the handle 100 may instead be integrated into the door 98, i.e., the door 98 may define a pocket that acts as the handle 100. Additionally, although not depicted, the oven range appliance 10 may further include one or more slide assemblies to assist and guide the drawer 86 between the open and closed positions. Such slide assemblies may be attached to, e.g., the bottom wall 92 of the drawer 86 and the bottom plate 60 of the cabinet 12. However, in other embodiments, any other suitable mechanism(s) may be provided for assisting and guiding the drawer 86 between the open and closed positions.

[0055] As will be explained in greater detail below, the oven range appliance 10 depicted in FIGS. 1 through 3 further includes features for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 such that the compartment 96 of the drawer 86 is accessible when in the open position. For example, the features for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may allow a user to access the compartment 96 of the drawer 86 regardless of whether or not one or more oven racks 22 are stored in the bottom chamber 50.

[0056] Referring now particularly to FIGS. 2 and 3, as well as to the close up views of FIGS. 3A and 3B, one exemplary means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 is described in greater detail.

[0057] For the exemplary embodiment depicted, the means for storing the one or more oven racks 22 in the bottom chamber 50 above the drawer 86 includes a first support bracket and a second support bracket. The first and second support brackets are positioned above the drawer 86 along the vertical direction V and proximate to the bottom chamber opening 52. The first and second support brackets are spaced along the lateral direction L of the oven range appliance 10 to support the one or more oven racks 22. Accordingly, the first support bracket is positioned proximate to the first side portion 32 of the cabinet 12 and the second support bracket is positioned proximate to the second side portion 33 of the cabinet 12.

[0058] More particularly, for the exemplary embodiment depicted, the first support bracket is a first channel 102 and the second support bracket is a second channel 104. The first and second channels 102, 104 extend along a transverse direction T of the oven range appliance 10 and each defines a guide wall 106 and a ledge 108. The guide walls 106 of the first and second channels 102, 104 extend downwardly along the vertical direction V and the ledges 108 extend inwardly from the sidewalls 106 along the lateral direction L. As used herein, the term “inwardly” refers to a direction generally along the lateral direction L towards a central plane of the bottom chamber 50, the central plane of the bottom chamber 50 being the plane defined by Line 2-2 of FIG. 1, as viewed in FIG. 2. By contrast, the term “outwardly” refers to a direction generally along the lateral direction L away from the central plane.

[0059] The first and second channels 102, 104 each also define a backstop 110 extending inwardly along the lateral direction L and vertically along the vertical direction V (FIG. 3A). The backstops 110 may prevent over-insertion of the one or more oven racks 22 within the bottom chamber 50.

[0060] The channels 102, 104 may be spaced from one another along the lateral direction L such that the guide walls 106 of the respective channels 102, 104 are further apart than an expected width (along the lateral direction L) of the one or more oven racks 22, while the ledges 108 and backstops 110 are closer together than the expected width of the one or more racks 22. Accordingly, as is shown, e.g., in a close-up view of FIG. 3B, the ledges 108 may effectively form a shelf configured to support the one or more oven racks 22 above the drawer 86, while, as is shown, e.g., in the close-up view of FIG. 3A, the guide walls 106 and backstops 110 may ensure the one or more oven racks 22 are properly stored in the bottom chamber 50 above the drawer 86.

[0061] Referring now also to FIG. 4, the first and second channels 102, 104 additionally include a mounting flange 112 extending inwardly along the lateral direction L and along a length of the respective channels 102, 104. Accordingly, the first and second channels 102, 104 may be U-shaped channels. The first and second channels 102, 104 depicted are attached to the ceiling 62 of the cabinet 12 within the bottom chamber 50 using the respective mounting flanges 112 and any suitable attachment mechanisms. For example, in certain exemplary embodiments the mounting flanges 112 may be attached using screws, bolts, rivets, welding, snaps, or a suitable epoxy.

[0062] Additionally, for the embodiment depicted, the first and second channels 102, 104 are each comprised of a single piece of material. For example, the first and second channels 102, 104 may each be made from a piece of sheet metal bent to form the desired shape, using any suitable metal shaping technique. Alternatively, the first and second channels 102, 104 may be made from a suitable plastic material, molded to form a single piece. However, in other exemplary embodiments, the first and/or second channels 102, 104 may instead
be comprised of two or more separate parts or components attached in any suitable manner.

[0063] Accordingly, a bottom chamber 50, such as the one depicted in FIGS. 2 through 4 including the exemplary features for storing one or more oven racks 22 above the drawer 86, may allow a user to conveniently store or access one or more oven racks in the bottom chamber 50 above the drawer 86 by simply sliding the one or more oven racks 22 along the transverse direction T into or out of the first and second channels 102, 104 and through the bottom chamber opening 52.

[0064] It should be appreciated, however, that in other exemplary embodiments, the first and second channels 102, 104 may have any other suitable configuration. For example, in other exemplary embodiments the mounting flanges 112 may instead extend outwardly from the guide walls 106, such that the first and second channels 102, 104 instead define a Z-shaped cross-section. Further, the first and second channels 102, 104 may additionally define one or more features to assist a user in storing the one or more oven racks 22. For example, a front edge 114 of the ledges 108 may define a guide lip extending downwardly at the front edge 114 along the vertical direction V to assist a user in inserting the one or more oven racks 22 into the respective channels 102, 104. Such a guide lip may be similar to the guide lip described below with reference to FIG. 15. Further, in still other exemplary embodiments the first and second channels 102, 104 may additionally, or alternatively, be attached to, e.g., the first and/or second base frames 66, 68, or the first channel 102 may be attached to the first side panel 56 and/or the second side panel 104 may be attached to the second side panel 58.

[0065] Reference will now be made to FIGS. 5 through 7. FIG. 5 provides a perspective view of a bottom chamber 50 of an oven range appliance 10 in accordance with another exemplary embodiment of the present subject disclosure. More particularly, FIG. 5 depicts the exemplary bottom chamber 50 including means for storing one or more oven racks 22 in accordance with another exemplary embodiment of the present disclosure, with a ceiling 62, a second side panel 58, and a door 98 removed for clarity. Additionally, FIG. 6 depicts the exemplary means for storing the one or more oven racks 22 of FIG. 5 in a retracted position, while FIG. 7 depicts the exemplary means for storing the one or more oven racks 22 of FIG. 5 in an extended position.

[0066] For the exemplary embodiment depicted, a first support bracket and a second support bracket may be positioned in substantially the same manner as the first and second support brackets discussed above with reference to FIGS. 2 through 4. However, for the embodiment of FIGS. 5 through 7, the first support bracket is a first extension assembly 116 and the second support bracket is a second extension assembly 118. The first and second extension assemblies 116, 118 may each include a mounting flange 120 for mounting the respective extension assemblies 116, 118 to, e.g., the ceiling 62 of the cabinet 12 within the bottom chamber 50. Any suitable attachment mechanism may be used. For example, the first and second extension assemblies 116, 118 may be mounted to the ceiling 62 of the cabinet 12 using screws, bolts, rivets, welding, or any suitable epoxy. However, in other exemplary embodiments, the first and second extension assemblies 116, 118 may instead be mounted or attached using any suitable mechanism and in any other suitable location within the bottom chamber 50.

[0067] Each of the extension assemblies 116, 118 include an outer bracket 122 slidably connected to an inner bracket 124. The outer brackets 122 may be directly connected to the respective inner brackets 124, or alternatively the extension assemblies 116, 118 may further include an intermediate bracket (not shown) to allow for further extension of the outer bracket 122. In certain embodiments, the outer brackets 120, the inner brackets 124, and/or the intermediate brackets, if included, may be fitted with one or more ball bearings to increase the slidability of the first and second extension assemblies 116, 118.

[0068] The first and second extension assemblies 116, 118 are attached to one another by a frame 126. More particularly, the frame 126 is attached to an inside surface 128 of the inner brackets 124 and is generally rectangular in shape. Additionally, the frame 126 depicted is a metal wire frame with two support bars 130 extending along the transverse direction T between a front bar 132 and a rear bar 134. The front bar 132 includes a handle 136 and the rear bar 134 includes a backstop 138. The handle 136 and backstop 138 are each defined by a portion of the front and rear bars 132, 134, respectively, that extend upwardly generally along the vertical direction V. Such a frame 126 may allow for secure storage of the one or more oven racks 22, or more particularly, may maintain the one or more oven racks 22 in position when storing (see FIG. 5).

[0069] The frame 126 is movable along the transverse direction T between an extended position (FIG. 7) and a retracted position (FIGS. 5 and 6) by the first and second extension assemblies 116, 118. In the extended position, the frame 126 may be extended at least partially through the opening 52 of the bottom chamber 50, increasing the ease of accessing or storing the one or more oven racks 22 for the user. By contrast, in the retracted position, the one or more oven racks 22 may be conveniently positioned in the bottom chamber 50 above the drawer 86 such that access to the compartment 96 of the drawer 86 is unpimpeded.

[0070] It should be appreciated, however, that in other exemplary embodiments, the frame 126 may instead have any other suitable configuration or construction. For example, in other exemplary embodiments, the frame 126 may include any suitable number of support bars 130 extending generally along the transverse direction T and/or along the lateral direction L. Additionally, the frame 126 may include any suitable configuration for the handle 136 and/or for the backstop 138. Further, although a perimeter of the frame 126 (including the front and rear bars 132, 134, as well as the handle 136 and backstop 138) are depicted as being constructed as a single metal wire member, in other exemplary embodiments, the perimeter of the frame 126 may instead be constructed from a plurality of various members attached in any suitable manner. For example, in other embodiments, the frame 126 may include one or more metal and/or plastic plates, bands, grates, etc.

[0071] Reference will now be made to FIGS. 8 and 9. FIG. 8 provides a perspective view of a bottom chamber 50 of an oven range appliance 10 in accordance with yet another exemplary embodiment of the present disclosure. More particularly, FIG. 8 depicts an exemplary bottom chamber 50 including yet another exemplary means for storing one or more oven racks 22, with a ceiling 62, a second side panel 58, and a door 98 removed for clarity. Additionally, FIG. 9 provides a side view of the exemplary bottom chamber 50 of FIG. 8, with just the second side panel 58 removed for clarity.
As is depicted, the exemplary means for storing the one or more oven racks 22 in the bottom chamber 50 above the drawer 86 of FIGS. 8 and 9 includes a first support bracket and a second support bracket. More particularly, for the embodiment depicted, the first support bracket is a first Z-shaped bracket 140 positioned above the drawer 86 in the vertical direction V and within the bottom chamber 50. Similarly, the second support bracket is a second Z-shaped bracket 142 positioned above the drawer 86 in the vertical direction V and within the bottom chamber 50. The first Z-shaped bracket 140 is positioned proximate to the bottom chamber opening 52 and proximate to the first side portion 32 of the cabinet 12, and the second Z-shaped bracket 142 is positioned proximate to the bottom chamber opening 52 and proximate to the second side portion 33 of the cabinet 12. Accordingly, the first and second Z-shaped brackets 140, 142 are spaced from one another along the lateral direction L.

The first and second Z-shaped brackets 140, 142 each include a mounting flange 144, a guide wall 146 extending downwardly along the vertical direction V from the mounting flange 144, and a ledge 148 extending inwardly along the lateral direction L from the guide wall 146. The mounting flanges 144 are attached to the ceiling 62 of the cabinet 12, using, for example, one or more suitable bolts, screws, nuts, or rivets. Accordingly, for the embodiment depicted, the first and second Z-shaped brackets 140, 142 are each attached to the ceiling 62 within the bottom chamber 50. However, in other embodiments, the mounting flanges 144 may instead be attached to, e.g., the front base frame 66 and/or to the first or second side panels 56, 58. In such an exemplary embodiment, the mounting flanges 144 may instead define, e.g., an L-shape.

Referring still to FIGS. 8 and 9, the guide walls 146 may, for example, assist a user in properly inserting the one or more oven racks 22, while the ledges 148 may be configured to support the one or more oven racks 22 during storage (see close-up view 9A in FIG. 9). Accordingly, the first and second Z-shaped brackets 140, 142 may be spaced along the lateral direction L such that the guide walls 146 are farther apart from one another along the lateral direction L than an expected width of the one or more oven racks 22, while the ledges 148 are closer together along the lateral direction L than an expected width of the one or more oven racks 22.

It should be appreciated, however, that in other exemplary embodiments the Z-shaped brackets 140, 142 may have any other suitable configuration or spacing. For example, although the mounting flanges 144 are depicted extending outwardly along the lateral direction L from the guide walls 146 (defining the "Z-shape" of the Z-shaped brackets 140, 142), in other exemplary embodiments the first and/or second support brackets may instead be U-shaped brackets defining mounting flanges that extend inwardly along the lateral direction L from the guide walls 146.

Referring now also to FIG. 10, the means for storing the one or more oven racks 22 in the bottom chamber 50 above the drawer 86 further includes a slide assembly 150. The slide assembly 150 is positioned above the drawer 86 in the vertical direction V and between the first and second support brackets (e.g., the first and second Z-shaped brackets 140, 142) along the lateral direction L. Additionally, as is depicted, the slide assembly 150 includes a support member 152 movably attached to a base 154. The base 154 extends along the transverse direction T, and the support member 152 is configured to support the one or oven racks 22. More particularly, the support member 152 is configured to support the one or more oven rack assemblies 22 within the bottom chamber 50 and along the transverse direction T (as it moves along the base 154).

For the exemplary embodiment of FIGS. 8 through 10, the base 154 is a band 156 extending between a first end 158 and a second end 160 with a longitudinal slot 162 defined along a center of the band 156 between the first and second ends 158, 160. Additionally, a first mounting flange 164 is positioned at the first end 158 and a second mounting flange 166 is positioned at the second end 160. The first and second mounting flanges 164, 166 may be attached to the ceiling 62 of the cabinet 12 within the bottom chamber 50, as is depicted in FIG. 9, using, e.g. bolts, screws, welds, snaps, or rivets.

Moreover, for the embodiment depicted, the exemplary support member 152 is a wire member including a forward facing hook 168 extending below the base 154 for supporting the one or oven racks 22 (see close-up view 9B in FIG. 9). The exemplary support member 152 additionally includes a wire eyefit 170 extending through the longitudinal slot 162 and wrapped around a roller 172. The roller 172 is moveable along the base 154 in the transverse direction T. Further, the roller 172 includes a pair of radially extending wheels 174 at each lateral end such that the base 154 effectively acts as a track for the roller 172 along the transverse direction T.

For the exemplary embodiment depicted, the base 154 additionally defines a front notch 176 proximate to the first end 158 and a rear notch 178 proximate to the second end 160. The front notch 176 may assist in keeping the support member 152 proximate to the first end 158 when, e.g., a user is loading or unloading the one or more oven racks 22 from the support member 152. Additionally, the rear notch 178 may assist in keeping the support member 152 and the one or more oven racks 22 within the bottom chamber 50 when, e.g., the drawer 86 is moved between the open and closed positions.

In one illustrative aspect, a user may store the one or more oven racks 22 by hooking a first end of the one or more oven racks 22 in the support member 152, for example when the support member 152 is positioned in the front notch 176 of the base 154. The user may then slide the one or more oven racks 22 and support member 152 rearwardly along the transverse direction T and along the base 154 until the one or more oven racks 22 are in a desired storage position, for example when the support member 152 is positioned in the rear notch 178 of the base 154. Moreover, the guide walls 146 of the first and second Z-shaped support brackets 140, 142 may assist in guiding the one or more oven racks into the proper and desired stored position. The user may then rest a second end of the one or more oven racks 22 one the ledges 148 of the first and second Z-shaped support brackets 140, 142 for storage. Once in the stored position, as shown, the one or more oven racks 22 may be conveniently positioned in the bottom chamber 50 above the drawer 86 for storage, such that access to the compartment 96 of the drawer 86 is unimpeded.

It should be appreciated, however that in other exemplary embodiments, the slide assembly 150 may instead have any other suitable configuration or spacing. For example, referring now to FIG. 11, an alternative embodiment of the slide assembly 150 is provided. For the exemplary embodiment of FIG. 11, the base 154 is configured instead as a wire base 180, with the eyefit 170 of the support member
152 wrapped around and slidably attached directly to the wire base 180. Moreover, as with the band 156 depicted in FIGS. 8 through 10, the wire base 180 defines a front notch 182 proximate to a first end 184 and a rear notch 186 proximate to a second end 188. Additionally, a first mounting flange 190 is positioned at the first end 184 and a second mounting flange 192 is positioned at the second end 188. The first and second mounting flanges 190, 192 may be attached to the ceiling 62 in any suitable manner.

[0082] Moreover, another alternative embodiment of the slide assembly 150 described above with reference to FIGS. 8 through 10 is provided in FIG. 12. For the exemplary embodiment of FIG. 12, the base 154 is again configured as the band 156 extending between the first end 158 and the second end 160. However, for the exemplary embodiment of FIG. 12, instead of the first and second attachment flanges 164, 166, the base 156 includes a first attachment clip 194 and a second attachment clip 196 at the first and second ends 158, 160, respectively. The first attachment clip 194 is configured to clip into a first respective opening 198 in the ceiling 62, while the second attachment clip 196 is configured to clip into a second respective opening 200 in the ceiling 62. More particularly, the first attachment clip 194 is configured to clip into the first respective opening 198 by moving the base 156 along the transverse direction T, while the second attachment clip 196 is configured to clip into the second respective opening 200 by moving the base 156 along the lateral direction L. Moreover, as is depicted in the close-up view of the first attachment clip 194 in FIG. 12, a locking member 202 is provided to lock the first attachment clip 194 in position once clipped into the second respective opening 200 along the lateral direction L. Such a configuration may allow for a more convenient installation of the slide assembly 150 in the bottom chamber 50.

[0083] It should be appreciated, however, that in other exemplary embodiments, the slide assembly 150 may instead define any other suitable clip configuration. For example, in other exemplary embodiments, both attachment clips 194, 196 may clip into a respective opening of the ceiling 62 along the same direction, such as along the lateral direction L or the transverse direction T. Additionally, each attachment clip 194, 196 may include a suitable locking mechanism, such as the locking mechanism 202 depicted.

[0084] Furthermore, in another exemplary embodiment of the present disclosure, referring again FIG. 13, the means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may further include a plurality of slide assemblies positioned in the bottom chamber 50 above the drawer 86 along the vertical direction V. More particularly, for the exemplary embodiment of FIG. 13, the means for storing the one or more oven racks 22 includes a first slide assembly 204 and a second slide assembly 206, each positioned in the bottom chamber 50 above the drawer 86 along the vertical direction V. More particularly, the first slide assembly 204 defines a first support member 208 movably attached to a first base 210. The first base 210 extends along the transverse direction T and the first support member 208 is configured to support the one or oven racks 22. Additionally, the second slide assembly 206 defines a second support member 212 movably attached to a second base 214. The second base 214 also extends along the transverse direction T and the second support member 212 is also configured to support the one or oven racks 22. The first slide assembly 204 and the second slide assembly 206 may each define any suitable configuration, such as the configurations described above with reference to FIGS. 8 through 10, FIG. 11, FIG. 12, or any other suitable configuration.

[0085] Notably, for the exemplary embodiment depicted in FIG. 13, the first slide assembly 204 is positioned proximate to the first side portion 32 and generally aligned with a first support bracket (e.g., the first Z-shaped bracket 140) along the transverse direction T and the second slide assembly 206 is positioned proximate to the second side portion 33 generally aligned with the second support bracket (e.g., the second Z-shaped bracket 142) along the transverse direction T. It should be appreciated, however, that in other exemplary embodiments, the first and/or second slide assemblies 204, 206 may instead be positioned inside the first and/or second support brackets along the lateral direction L. Moreover, in still other exemplary embodiments, the means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may include any other suitable number of slide assemblies. For example, other exemplary embodiments may include three slide assemblies, four slide assemblies, or any other suitable number of slide assemblies. In certain of these alternative embodiments, the support members may be separate, or alternatively may be connected to one another.

[0086] Reference now will be made to FIGS. 14 through 16. FIG. 14 provides a perspective view of a bottom chamber 50 of an oven range appliance 10 in accordance with still another exemplary embodiment of the present disclosure. More particularly, FIG. 14 depicts an exemplary bottom chamber 50 including another exemplary means for storing one or more oven racks 22, with a ceiling 62, a second side panel 58, and a door 98 removed for clarity. Additionally, FIG. 15 provides a perspective view of an exemplary tiered support bracket, and FIG. 16 provides a perspective view of an exemplary rear support bracket.

[0087] For the exemplary embodiment depicted, the means for storing the one or more oven racks 22 in the bottom chamber 50 above the drawer 86 includes a first support bracket and a second support bracket, as well as a third support bracket and a fourth support bracket. Each of the support brackets are positioned above the drawer 86 along the vertical direction V. Moreover, for the embodiment depicted, each of the support brackets are configured as tiered support brackets. More particularly, the first support bracket is a first tiered support bracket 216, the second support bracket is a second tiered support bracket 218, the third support bracket is a third tiered support bracket 220, and the fourth support bracket is a fourth tiered support bracket 222.

[0088] The first and second tiered support brackets 216, 218 are positioned proximate to the bottom chamber opening 52, and the third and fourth tiered support brackets 220, 222 are spaced from the first and second tiered support brackets 216, 218 along the transverse direction T. Moreover, as depicted, the first and third tiered support brackets 216, 220 are spaced from the second and fourth tiered support brackets 218, 222 along the lateral direction L. For example, as is shown, the first and third tiered support brackets 216, 220 are positioned proximate to the first side portion 32 of the cabinet 12, while the second and fourth tiered support brackets 218, 222 are positioned proximate to the second side portion 33 of the cabinet 12. For example, the spacing of the brackets may be such that the one or more oven racks 22 may be balanced on the various brackets within the bottom chamber 50 above the drawer 86.
Each of the tiered support brackets 216, 218, 220, 222 defines a mounting flange 224 configured to mount the respective tiered support bracket 216, 218, 220, 222 to, e.g., the ceiling 62 of the cabinet 12 within bottom chamber 50, as well as an alignment wall 226. The alignment walls 226 each extend downwardly along the vertical direction V from the respective mounting flanges 224 and may assist a user in moving the one or more oven racks 22 in a proper direction when storing such oven racks 22.

Moreover, as may be more clearly seen in FIG. 15, each of the tiered support brackets 216, 218, 220, 222 define an upper ledge 228 and a lower ledge 230. The upper and lower ledges 228, 230 of the tiered support brackets 216, 218, 220, 222 each extend inwardly from the respective alignment walls 226 along the lateral direction L towards the opposing tiered support brackets. Additionally, the upper and lower ledges 228, 230 are spaced from one another along the vertical direction V such that the upper ledges 228 may support a first oven rack, while the lower ledges 230 may support a second oven rack. More particularly, the upper ledges 228 lower ledge 230 may be spaced along the vertical direction V such that when the one or more oven racks 22 are stored therein, a user may selectively access one of the one or more oven racks 22 positioned on, e.g., the upper ledges 228 or the lower ledges 230.

As is also depicted in the exemplary embodiment of FIGS. 14 and 15, each of the ledges 228, 230 defines a guide lip 232 at a forward edge 234 of the ledges 228, 230. The guide lips 232 may assist a user in mounting the one or more oven racks 22 in the bottom chamber 50 above the drawer 86, or more particularly, may assist in guiding the one or more oven racks 22 into position on the respective upper and/or lower ledges 228, 230.

Moreover, referring now also to FIG. 16, for the exemplary embodiment depicted, the means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 further includes a rear support bracket 236. The rear support bracket 236 is positioned in the bottom chamber 50 above the drawer 86 along the vertical direction V. The rear support bracket 236 depicted includes a mounting flange 238 for mounting the rear support bracket 236 to, e.g., the ceiling 62 of the cabinet 12 within the bottom chamber 50, a backstop 240 extending downwardly along the vertical direction V from the mounting flange 238, and a ledge 242 extending outwardly from the backstop 240 along the transverse direction T. The ledge 242 may be configured to further support the one or more oven racks 22, while the backstop may prevent over-insertion of the one or more oven racks 22 within the bottom chamber 50.

Referring particularly to FIG. 16, the ledge 242 of the exemplary rear support bracket 236 defines a notch 244 and a guide lip 246. The notch 244 may prevent the one or more oven racks 22 from moving out of position when, e.g., the drawer 86 is moved between the open position and the closed position. Additionally, the guide lip 246, positioned at a forward edge 248 of the ledge 242, may guide the one or more oven racks 22 onto the ledge 242 as the one or more oven racks 22 are being stored.

It should be appreciated, however, that the configuration described above with reference to FIGS. 14 through 16 is by way of example only. For example, in other exemplary embodiments, the means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may alternatively include any other suitable number of support brackets. For example although the exemplary embodiment of FIG. 14 includes four support brackets, in other exemplary embodiments two support brackets may be used, or alternatively five, six, or more support brackets may be used positioned in any suitable manner within the bottom chamber 50 of the drawer 86. Additionally, although the support brackets depicted in FIG. 14 are tiered support brackets, in other exemplary embodiments, the support brackets may instead be, e.g., Z-shaped or U-shaped brackets. Further, in other exemplary embodiments, the tiered support brackets 216, 218, 220, 222 may include any other suitable number of ledges 228, 230. For example, in other exemplary embodiments the tiered support brackets may include three ledges, four ledges, or any other suitable number of ledges spaced apart from one another along the vertical direction V.

Further, in still other exemplary embodiments of the present disclosure, the rear support bracket 236 may have any other suitable configuration. For example, in other exemplary embodiments, the rear support bracket 236 may not include the ledge 242, or alternatively the ledge 242 may not define the notch 244 and/or the guide lip 246. Alternatively, in still other exemplary embodiments, the ledge 242 may include multiple tiers, spaced along the vertical direction V, similar to the tiered support brackets 216, 218, 220, 222 discussed above. Alternatively, however, the rear support bracket 236 may be replaced or supplemented by, e.g., a backstop on one or more of the side support brackets.

With reference now to FIG. 17, in still other exemplary embodiments the means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may utilize any other suitable configuration for the support brackets. For example, as shown in FIG. 17, the means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may utilize a front support bracket 250 positioned above the drawer 86 along the vertical direction V and proximate to the bottom chamber opening 52. The front support bracket 250 depicted includes a support rail 252 configured to extend along the lateral direction L of the oven range appliance 10 across at least a portion of the bottom chamber opening 52 to support the one or more oven racks 22. More particularly, the support rail 252 may extend across the bottom chamber opening 52 for a length corresponding to an expected width of the one or more oven racks 22, such that the support rail 252 may provide support for the one or more oven racks 22. For the exemplary embodiment depicted, the support rail 252 is a longitudinally extending band, however in other exemplary embodiments the support rail 252 may instead be, e.g., a longitudinally extending wire bar.

The front support bracket 250 defines a first end 254 and a second end 256, with the support rail 252 extending along the lateral direction L between the first and second ends 254, 256. Additionally the first end 254 defines a first mounting flange 258 for mounting the first end 256 to, e.g., the ceiling 62 of the cabinet 12 and a first guide wall 260 extending downwardly along the vertical direction V from the first mounting flange 258. Similarly, the second end 256 defines a second mounting flange 262 for mounting the second end 256 to, e.g., the ceiling 62 of the cabinet 12, and a second guide wall 264 extending downwardly along the vertical direction V from the second mounting flange 262. The first end 254 may be positioned proximate to the first side portion 32 of the cabinet 12 and the second end may be positioned proximate to the second side portion 33 of the cabinet 12. Such a front support bracket 250 may be referred to as an elongated
U-shaped bracket, such as the one depicted. For example, such an elongated U-shaped bracket may replace, e.g., the first and second support brackets depicted in FIG. 14 and/or the third and fourth support brackets depicted in FIG. 14. [0099] It should be appreciated, however, that in other exemplary embodiments the front support bracket 250 depicted in FIG. 17 may additionally include other features for supporting and/or storing one or more oven racks 22. For example, in other exemplary embodiments the front support bracket 250 may additionally include a guide lip at a leading edge 266 of the support rail 252 to assist a user in inserting one or more oven racks 22 for storage.

[0099] Reference will now be made to FIGS. 18 through 20. FIG. 18 provides a front view of a bottom chamber 50 of an oven range appliance 10 in accordance with yet another exemplary embodiment of the present disclosure. More particularly, FIG. 18 depicts an exemplary bottom chamber 50 including an exemplary means for storing one or more oven racks 22, with a door 98 removed for clarity. Additionally, FIG. 19 provides a side view of the exemplary bottom chamber 50 of FIG. 18, including the door 98, but with the second side panel 58 removed for clarity. Further, FIG. 20 provides a close up view of an exemplary snap attachment, described below.

[0100] For the exemplary embodiment depicted in FIGS. 18 through 20, the means for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 includes a first support bracket and a second support bracket. For the embodiment depicted, the first support bracket is a first snap attachment 268 and the second support bracket is a second snap attachment 270. The first and second snap attachments 268, 270 are positioned proximate to the bottom chamber opening 52, above the drawer 86 along the vertical direction V. More particularly, for the embodiment depicted, the first and second snap attachments 268, 270 are mounted to the ceiling 62 of the cabinet 12 within the bottom chamber 50, although in other exemplary embodiments, the first and second snap attachments 268, 270 may instead be attached, e.g., to the front base frame 66. Moreover, the first snap attachment 268 is positioned proximate to the first side portion 32 of the cabinet 12 and the second snap attachment 270 is positioned proximate to the second side portion 33 of the cabinet 12. The first and second snap attachments 268, 270 each define a pair of compression arms 272, 274 extending downwardly along the vertical direction V configured to hold the one or oven racks 22, as will be described in greater detail below.

[0101] Referring particularly to FIGS. 18 and 19, the exemplary means further includes a rear support bracket 276 positioned in the bottom chamber 50 above the drawer 86 along the vertical direction V. The rear support bracket 276 depicted is mounted to the ceiling 62 of the cabinet 12 within the bottom chamber 50. In certain exemplary embodiments the rear support bracket 276 may be configured in substantially the same manner as the rear support bracket 236 described above with reference to FIGS. 14 and 16.

[0102] Referring now particularly to FIG. 20, the first snap attachment 268 is shown in greater detail. As stated, the first snap attachment 268 includes a pair of compression arms 272, 274 extending downwardly from a body portion 278 along the vertical direction V. The compression arms 272, 274 together define a first indentation 280 and a second indentation 282. Each indentation 280, 282 is configured to hold one of the one or more oven racks 22. For example, each indentation 280, 282 may be configured to hold a single one of the one or more oven racks 22. Moreover, each of the compression arms 272, 274 are configured for elastic deformation relative to one another such that a portion of the one or more oven racks 22 may be releasably positioned in the first indentation 280 and/or the second indentation 282.

[0103] The first snap attachment 268 of FIG. 20 further includes an attachment end 283. The attachment end 283 may be configured to be snap fit within a corresponding hole in the ceiling 62 of the cabinet 12 to mount the first snap attachment 268 to the ceiling. The second snap attachment 270 may be configured in substantially the same manner.

[0104] In other exemplary embodiments, however, any other suitable snap attachment mechanism may be provided for holding and/or supporting the one or more oven racks. For example, in other exemplary embodiments the snap attachments 268, 270 may further include any suitable number of indentations. Additionally, in other exemplary embodiments the snap attachments may be attached to the ceiling 62 of the cabinet 12 within the bottom chamber 50 in any other suitable manner such as, for example, by utilizing screws, bolts, rivets, welding, or any other suitable attachment means.

[0105] An oven range appliance 10 including one or more of the means described herein for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may prevent unnecessary wear to, e.g., the one or more oven racks 22 and any cooking utensils positioned in the compartment 96 of the drawer 86. Further, an oven range appliance 10 including one or more of the means described herein for storing one or more oven racks 22 in the bottom chamber 50 above the drawer 86 may allow for a user to access the compartment 96 of the drawer 86 independently of whether or not any oven racks 22 are stored.

[0106] Reference now will be made to FIGS. 21 through 24. FIG. 21 provides a side view of a bottom chamber 50 of the oven range appliance 10 in accordance with still another exemplary embodiment of the present disclosure, with a second side panel 58 removed for clarity. Additionally, FIG. 22 provides a perspective view of a drawer 86 positioned in the bottom chamber 50 of FIG. 21: FIG. 23 provides a side view of an exemplary clip in accordance with the present disclosure; and FIG. 24 provides a front view of an exemplary bracket in accordance with the present disclosure.

[0107] Referring particularly to FIGS. 21 and 22, the bottom chamber 50 depicted may be included in an oven range appliance 10 similar to the oven range appliance 10 described above with reference to FIGS. 1 and 2. Accordingly, the drawer 86 is positioned at least partially within the bottom chamber 50 and includes a first side wall 88 and a second and opposite side wall 90, each extending along the transverse direction T. The first side wall 88 defines a first top portion 284 (FIG. 22), and the second side wall 90 defines a second top portion 286. The drawer 86 also includes a rear wall 94 extending along the lateral direction L and a bottom wall 92. A compartment 96 is defined by the drawer 86. Moreover, for the embodiment depicted, the drawer 86 is movable along the transverse direction T between an open position (not shown), wherein at least a portion of the drawer 86 is extended from within the bottom chamber 50 through a bottom chamber opening 52, and a closed position (FIG. 21). As is also depicted, the oven range appliance 10 additionally includes a bottom chamber door 98 attached to the first and second
sidewalls 88, 90 of the drawer 86. The bottom chamber door 98 covers up the bottom chamber opening 52 when the drawer 86 is in the closed position.

[0108] The oven range appliance 10 further includes a first ledge attached to or integral with the top portion 284 of the first side wall 88 of the drawer 86, and a second ledge attached to or integral with the top portion 286 of the second side wall 90 of the drawer 86. The first and second ledges are positioned above the compartment 96 of the drawer 86 along the vertical direction V and are configured to support one or more oven racks 22 above the compartment 96 of the drawer 86 along the vertical direction V.

[0109] For the embodiment of FIGS. 21 and 22, the first ledge is a ledge 300 defined by a first bracket 302 attached to the top portion 284 of the first side wall 88, and the second ledge is a ledge 304 defined by a second bracket 306 attached to the top portion 286 of the second side wall 90. The first and second brackets 302, 306 extend upwardly along the vertical direction V from the top portions 284, 286 of the first and second side walls 88, 90, respectively, of the drawer 86. Moreover, the first and second brackets 302, 306 further define side retaining walls 308 extending upwardly along the vertical direction V from the respective ledges 300, 304. The ledges 300, 304 may support the one or more oven racks 22, while the side retaining walls 308 may assist in guiding the one or more oven racks 22 when, e.g., a user is moving the one or more oven racks 22 into or out of storage.

[0110] Referring now also to FIG. 23, the first and second brackets 302, 306 each additionally include an attachment end 309 which may be snap fit into corresponding openings (not shown) in the top portion 284 of the first sidewall 88 and/or in the top portion 286 of the second side wall 90. However, in other embodiments, the brackets 302, 306 may additionally, or alternatively, be attached to the top portions 284, 286 of the respective sidewalls 88, 90 in any other suitable manner. For example, in other exemplary embodiments the brackets 302, 306 may be attached to the respective sidewalls 88, 90 using bolts, rivets, screws, welding, or any suitable epoxy. Moreover, in other exemplary embodiments, the oven range appliance 10 may further include any suitable number of brackets attached to the top portions 284, 286 of the respective sidewalls 88, 90 having any suitable configuration. For example, in other embodiments, the oven range appliance 10 may include four brackets, six brackets, eight brackets, or any other suitable number of brackets.

[0111] With reference still to FIG. 21, and now also to FIG. 24, a rear side 288 of the door 98 includes a hook 290 positioned above the compartment 96 of the drawer 86, also configured to support one or more oven racks 22 above the compartment 96 of the drawer 86 (see close-up view 21A in FIG. 21). The hook 290 includes a retaining bar 292 and a support bar 294. The support bar 294 extends rearwardly from a base 296 along the transverse direction T, and the retaining bar 292 extends upwardly along the vertical direction V from the support bar 294. The support bar 294 may support one or more oven racks 22 positioned thereon, while the retaining bar 292 may prevent unwanted movement of the one or more oven racks 22 when, e.g., the user moves the drawer 86 between the open position and closed position. The base 296 of the exemplary storage hook 290 includes a clip 298 allowing the storage hook 290 to be clipped onto or into an opening (not shown) in the rear surface 288 of the door 98 along the vertical direction V. However, in other exemplary embodiments any other suitable attachment mechanism may be provided to attach the hook 290 to the rear side 288 of the door 98.

[0112] For the embodiment depicted in FIG. 21, a single hook 290 is positioned on the rear side 288 of the door 98. However, in other embodiments, any suitable number of hooks 290 may be positioned on the rear side 288 of the door 98. Additionally, in still other exemplary embodiments, the hook 290 may alternatively be attached to the rear side 288 of the door 98 in any other suitable manner, such as, for example, by bolting, screwing, welding, using rivets, or by any other suitable attachment mechanism. Alternatively, in still other exemplary embodiments, the hook 290 may instead be formed integrally with the rear side 288 of the door 98.

[0113] Reference will now be made to FIGS. 25 and 26. FIG. 25 provides a front view of a bottom chamber 50 of an oven range appliance 10 in accordance with still another exemplary embodiment of the present disclosure, with a door 98 removed for clarity. Additionally, FIG. 26 provides a perspective view of the drawer 86 positioned within the bottom chamber 50 of FIG. 25.

[0114] The exemplary bottom chamber 50 of the oven range appliance 10 of FIGS. 25 and 26 may be configured in substantially the same manner as the bottom chamber 50 of the oven range appliance 10 of FIGS. 21 and 22. However, for the exemplary embodiment of FIGS. 25 and 26 the first ledge is instead a ledge 310 defined by an extension 312 of the top portion 284 of the first side wall 88 of the drawer 86, and the second ledge is a ledge 314 defined by an extension 316 of the top portion 286 of the second side wall 90 of the drawer 86. More particularly, the extensions 312, 316 extend outwardly along the lateral direction L from the respective top portions 284, 286 of the first and second sidewalls 88, 90. For the embodiment depicted, the ledges 310, 314 extend along the entire length of the respective sidewalls 88, 90 along the transverse direction T. However, in other exemplary embodiments, the ledges 310, 314 may not run along the entire length of the drawer 86 in the transverse direction T, and instead may only extend intermittently along the length of the drawer 86. Additionally, or alternatively, the ledges 310, 314 may terminate prior to the rear wall 94 of the drawer 86.

[0115] The extensions 312, 316 further include guide portions 318 extending upwardly along the vertical direction V from an outer edge 320 of the ledges 310, 314. The guide portions 318 may assist in guiding the one or more oven racks 22 into and out of a stored position, while the ledges 310, 314 may support the one or more oven racks 22.

[0116] Referring specifically to FIG. 25 the extensions 312, 316 each further include a backstop 322. The backstop 322 may prevent a user from, e.g., over inserting the one or more oven racks 22 along the transverse direction T.

[0117] For the exemplary embodiment depicted in FIGS. 24 and 25, the extensions 312, 316, including the ledges 310, 314, the guide portions 318, and the backstops 322, are all formed integrally with the drawer 86 and positioned above the compartment 96. More particularly, for the embodiment depicted, all of these components are made from the same material and include no gaps, seams, or junctions therebetween. Such a configuration may result from forming the drawer 86 and the ledges 310, 314 of a single piece of material, such as a single piece of sheet metal, using known metal shaping or forming methods. It should be appreciated, how-
ever, that in other exemplary embodiments the ledges 310, 314 may instead be defined by, e.g., any other suitable separately formed components.

[0118] An oven range appliance 10 in accordance with the above exemplary embodiments may allow a user to store the one or more oven racks 22 in the bottom chamber 50 above the compartment 96 of the drawer 86, to prevent unnecessary wear on the one or more oven racks 22 and/or any cooking utensils positioned in the compartment 96 of the drawer 86.

[0119] Referring now to FIG. 27, an exemplary aspect of the present disclosure will be described. FIG. 27 provides a block diagram of an exemplary method 330 for storing one or more oven racks in a bottom chamber of an oven range appliance defining a vertical direction and a transverse direction. The exemplary method 330 includes at 332 moving a drawer outwardly along the transverse direction T to an open position. Moving the drawer outwardly along the transverse direction T to an open position at 332 exposes the bottom chamber and a compartment of the drawer. The exemplary method also includes at 334 moving one or more oven racks into a stored position within the bottom chamber above the drawer such that the compartment of the drawer is accessible independently from the storage of the one or more oven racks the bottom chamber. In certain exemplary aspects, moving the one or more oven rack into the stored position within the bottom chamber may further include sliding the one or more oven racks into an opening defined by one or more brackets positioned above the drawer in the bottom chamber.

[0120] This written description uses examples to disclose the invention, including the best mode, and also to enable any person skilled in the art to practice the invention, including making and using any devices or systems and performing any incorporated methods. The patentable scope of the invention is defined by the claims, and may include other examples that occur to those skilled in the art. Such other and examples are intended to be within the scope of the claims if they include structural elements that do not differ from the literal language of the claims, or if they include equivalent structural elements with insubstantial differences from the literal language of the claims.

What is claimed:

1. An oven range appliance that defines a vertical direction and a transverse direction, the vertical and transverse directions being perpendicular, the oven range appliance comprising:
   a cabinet extending along the transverse direction between a front side and a rear side, the cabinet defining a cooking chamber;
   a bottom chamber positioned below the cooking chamber along the vertical direction; and
   a bottom chamber opening defined at the front side of the cabinet;
   a drawer positioned at least partially in the bottom chamber and defining a compartment, the drawer moveable along the transverse direction between an open position and a closed position, at least a portion of the drawer extended outwardly through the bottom chamber opening in the open position; and
   means for storing one or more oven racks in the bottom chamber above the drawer such that the compartment of the drawer is accessible when the drawer is in the open position.

2. The oven range appliance of claim 1, wherein the cabinet includes a ceiling at a top end of the bottom chamber, and wherein the means for storing the one or more oven racks is attached to the ceiling.

3. The oven range appliance of claim 1, wherein the means for storing one or more oven racks in the bottom chamber above the drawer comprises:
   a first support bracket; and
   a second support bracket, the first and second support brackets positioned above the drawer along the vertical direction and proximate to the bottom chamber opening, the first and second support brackets spaced along a lateral direction of the oven range appliance to support the one or more oven racks.

4. The oven range appliance of claim 3, wherein the first support bracket is a first channel and the second support bracket is a second channel, the first and second channels extending along a transverse direction of the oven range appliance.

5. The oven range appliance of claim 4, wherein the first and second channels each define a guide wall and a ledge, wherein the guide walls extend downwardly along the vertical direction, and wherein the ledges extend inwardly from the guide walls for supporting the one or more oven racks.

6. The oven range appliance of claim 5, wherein the cabinet includes a ceiling at a top end of the bottom chamber, and wherein the first and second channels are each U-shaped channels attached to the ceiling.

7. The oven range appliance of claim 3, wherein the first support bracket comprises a first extension assembly and the second support bracket comprises a second extension assembly, the first and second extension assemblies attached to one another by a frame for holding the one or more oven racks, the frame moveable between an extended position and a retracted position by the extension assemblies.

8. The oven range appliance of claim 3, wherein the means for storing one or more oven racks in the bottom chamber above the drawer further comprises:
   a slide assembly positioned above the drawer in the vertical direction and between the first and second support brackets along the lateral direction, the slide assembly defining a support member movably attached to a base, the base extending along the transverse direction and the support member configured to support the one or oven racks.

9. The oven range appliance of claim 3, wherein the means for storing one or more oven racks in the bottom chamber above the drawer further comprises:
   a first slide assembly positioned above the drawer in the vertical direction, the first slide assembly defining a first support member movably attached to a base, the first base extending along the transverse direction and the first support member configured to support the one or oven racks; and
   a second slide assembly positioned above the drawer in the vertical direction, the second slide assembly defining a second support member movably attached to a second base, the second base extending along the transverse direction and the second support member configured to support the one or oven racks.

10. The oven range appliance of claim 3, wherein the means for storing one or more oven racks in the bottom chamber above the drawer further comprises
a rear support bracket positioned above the drawer in the vertical direction and defining a backstop and a ledge, the backstop extending downwardly along the vertical direction and the ledge extending outwardly from the backstop, the ledge configured to support the one or more oven racks.

11. The oven range appliance of claim 3, wherein the means for storing one or more oven racks in the bottom chamber above the drawer further comprises:
a third support bracket spaced from the first support bracket along the transverse direction; and
a fourth support bracket spaced from the second support bracket along the transverse direction, the third and fourth support brackets positioned above the drawer in the vertical direction and spaced from one another along the lateral direction, the third and fourth support brackets configured to assist in supporting the one or more oven racks.

12. The oven range appliance of claim 3, wherein the first and second support brackets are each tiered support brackets defining an upper ledge and a lower ledge, the upper and lower ledges extending inwardly along the lateral direction towards the opposing tiered support bracket and spaced from one another along the vertical direction, the upper ledges configured to support a first oven rack and the lower ledges configured to support a second oven rack.

13. The oven range appliance of claim 3, wherein the first support bracket comprises a first snap attachment and the second support bracket comprises a second snap attachment, the first and second snap attachments each defining a pair of compression arms extending downwardly along the vertical direction configured to support the one or more oven racks.

14. The oven range appliance of claim 1, wherein the means for storing one or more oven racks in the bottom chamber above the drawer comprises:
a front support bracket positioned above the drawer in the vertical direction and proximate to the bottom chamber opening, the front support bracket including a support rail extending along a lateral direction of the oven range appliance to support the one or more oven racks; and
a rear support bracket positioned above the drawer in the vertical direction and defining a backstop and a ledge, the backstop extending downwardly along the vertical direction and the ledge extending outwardly from the backstop, the ledge also configured to support the one or more oven racks.

15. The oven range appliance of claim 1, further comprising:
a door attached to the drawer that covers the bottom chamber opening when the drawer is in the closed position.

16. An oven range appliance that defines a vertical direction and a transverse direction, the vertical and transverse directions being perpendicular, the oven range appliance comprising:
a cabinet extending along the transverse direction between a front side and a rear side, the cabinet defining a cooking chamber; and
a bottom chamber positioned below the cooking chamber along the vertical direction;
a drawer positioned at least partially in the bottom chamber and comprising a first side wall and a second and opposite side wall, each extending along the transverse direction, the drawer defining a compartment;
a first ledge attached to or integral with a top portion of the first side wall; and
a second ledge attached to or integral with a top portion of the second side wall, the first and second ledges configured to support the one or more oven racks above the compartment along the vertical direction.

17. The oven range appliance of claim 16, wherein the first ledge is defined by a first bracket attached to the top portion of the first side wall, and wherein the second ledge is defined by a second bracket attached to the top portion of the second side wall.

18. The oven range appliance of claim 16, wherein the first ledge is defined by an extension of the first side wall that extends outwardly along the lateral direction from the top portion of the first side wall, and wherein the second ledge is defined by an extension of the second side wall that extends outwardly along the lateral direction from the top portion of the second side wall.

19. A method for storing one or more oven racks in a bottom chamber of an oven range appliance defining a vertical direction and a transverse direction, the method comprising:
moving a drawer outwardly along the transverse direction to an open position, exposing the bottom chamber and a compartment of the drawer; and
moving the one or more oven racks into a stored position within the bottom chamber above the drawer such that a compartment of the drawer remains accessible after the storage of the one or more oven racks in the bottom chamber.

20. The method of claim 17, wherein moving the one or more oven racks into a stored position within the bottom chamber comprises sliding the one or more oven racks into one or more storage brackets positioned above the drawer in the bottom chamber.

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