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(54) **COOKING RANGE**

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(2013.01); *F24C 3/027* (2013.01)

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(57) **ABSTRACT**

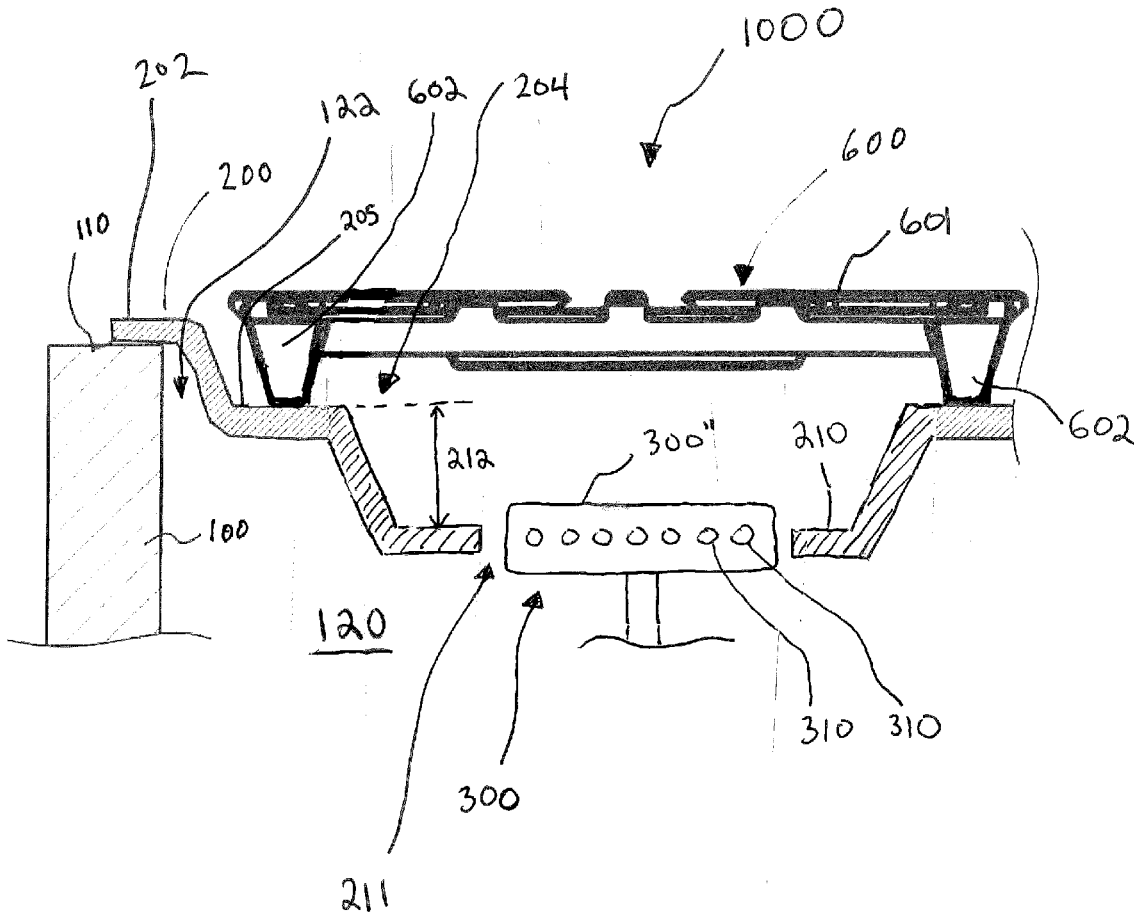
According to one example, a cooking range pan includes an upper flange, an upper level coupled to the upper flange, and a lower level coupled to the upper level. The upper flange is configured to be coupled to a frame of a cooking range. The upper level includes one or more heat source holes that extend through a depth of the upper level. The lower level includes one or more additional heat source holes that extend through a depth of the lower level. The lower level is positioned vertically lower than the upper level. Each of the heat source holes and the additional heat source holes are configured to surround a portion of a respective heat source of the cooking range.

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(22) Filed: **Dec. 21, 2018**

Related U.S. Application Data

(60) Provisional application No. 62/610,644, filed on Dec. 27, 2017.



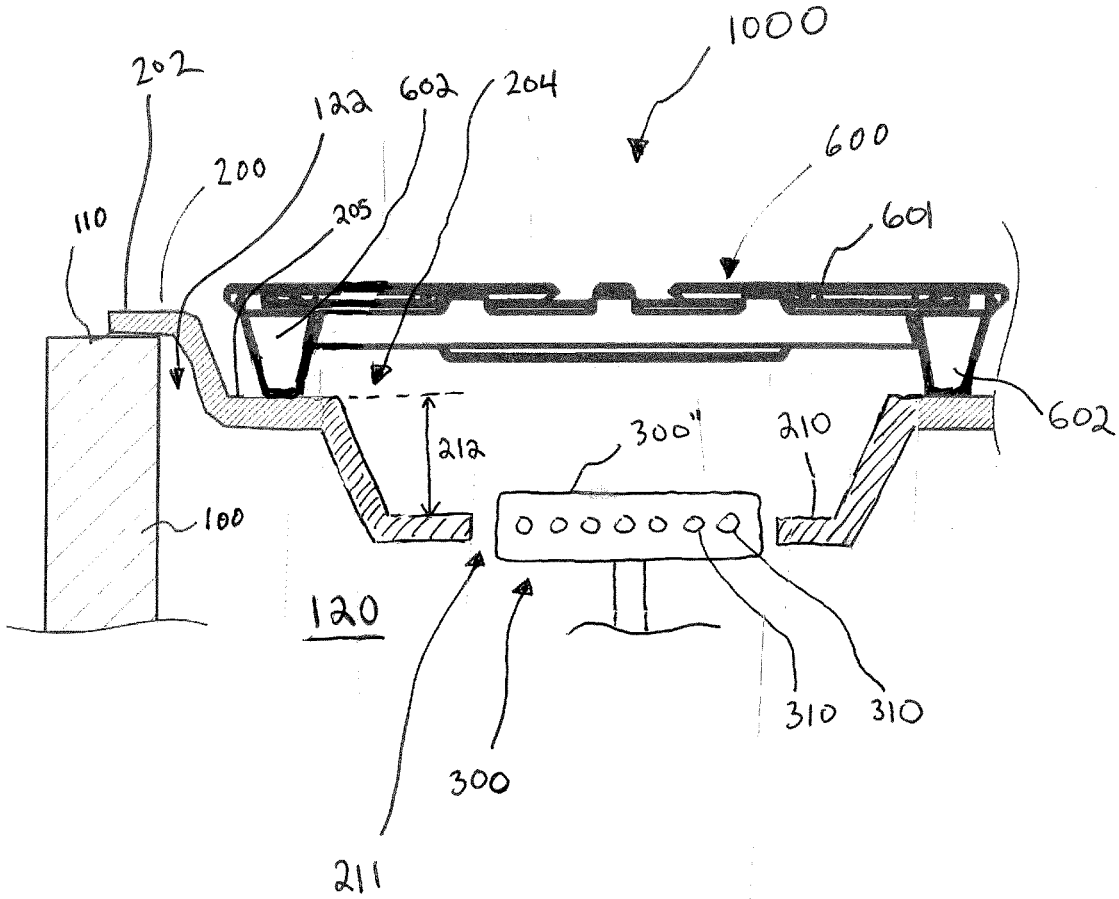


Fig. 1A

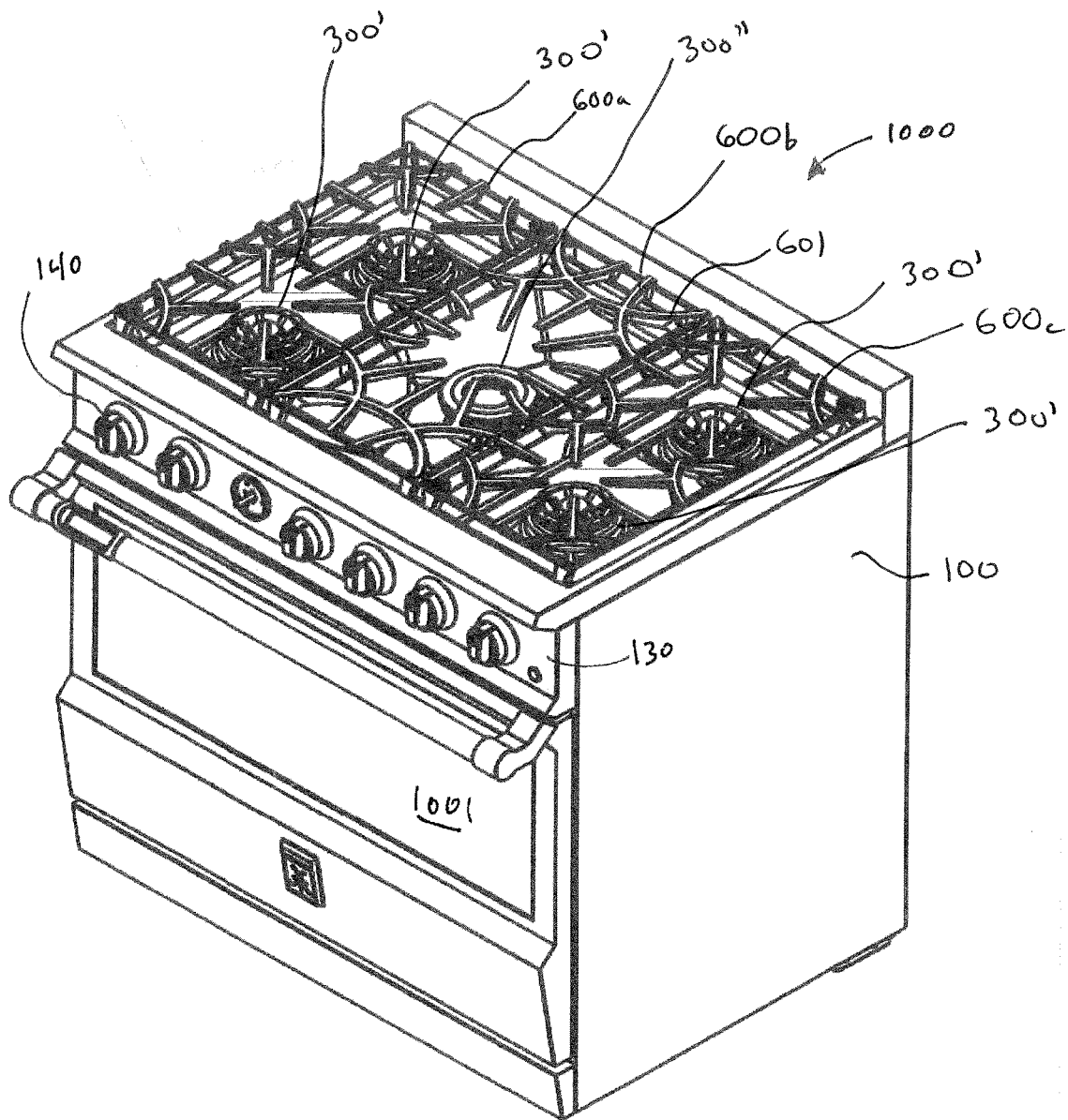


Fig. 1B

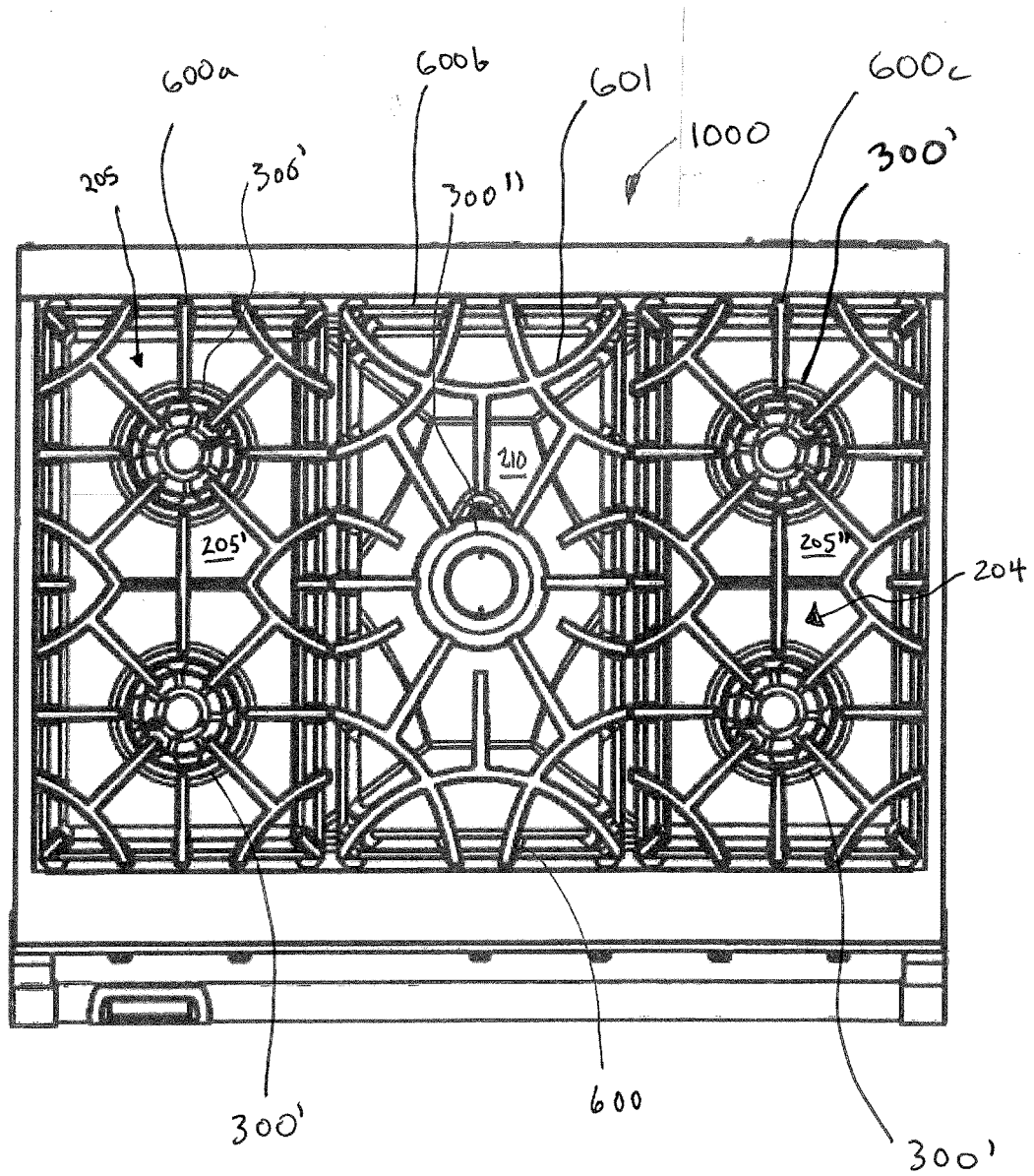


Fig. 1C

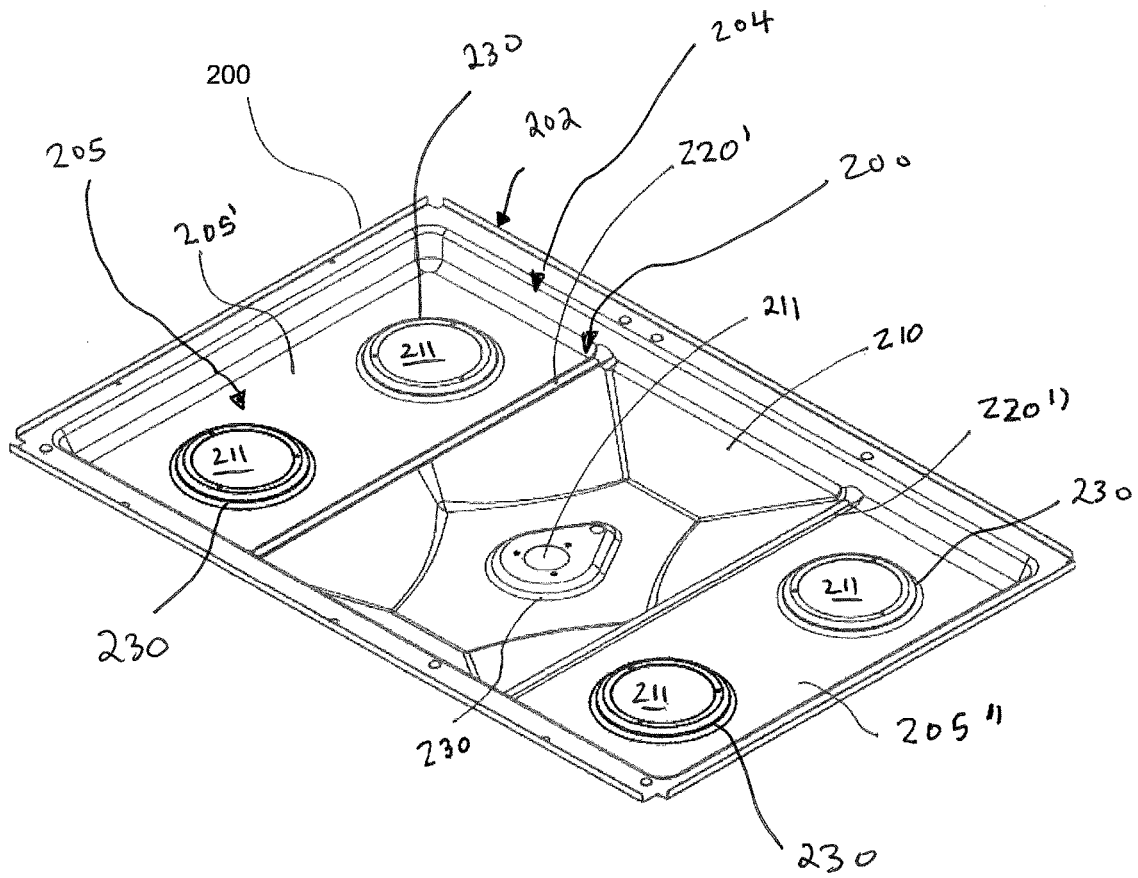


Fig. 2A

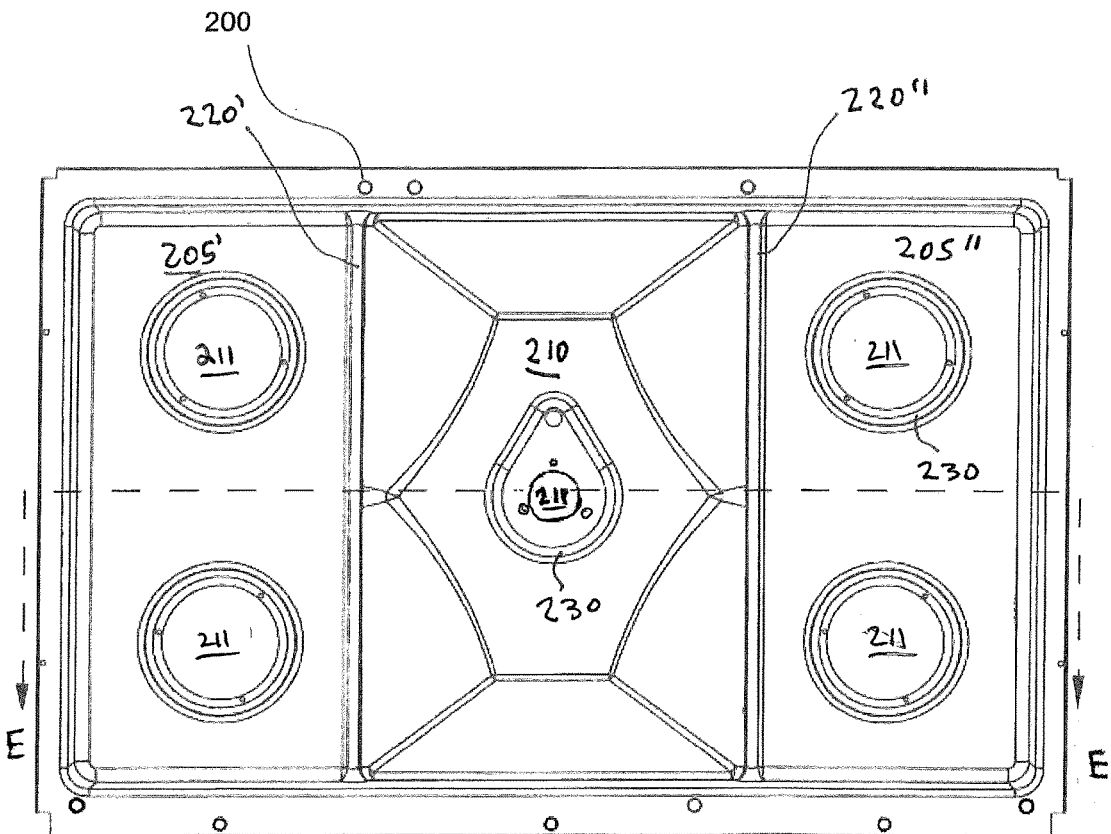


Fig. 2B

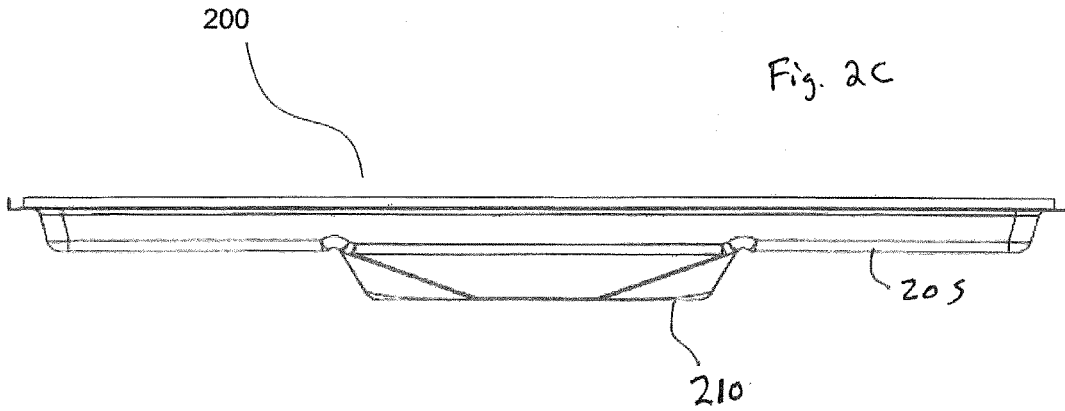


Fig. 2C

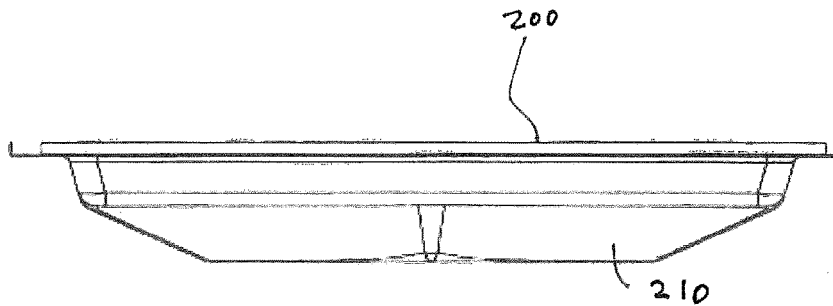


Fig. 2D

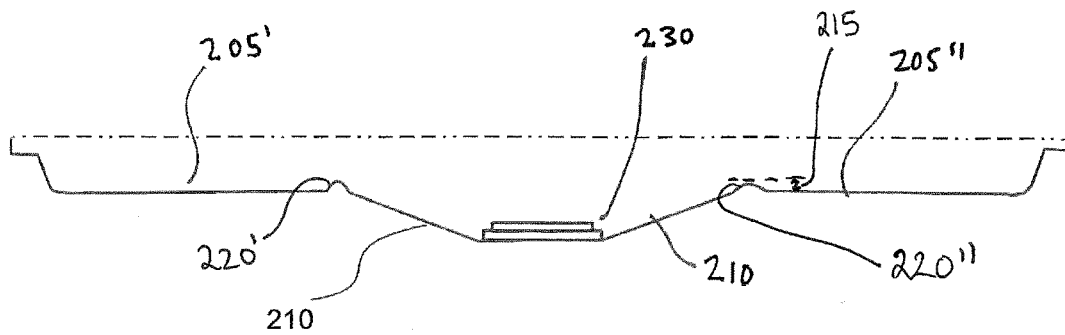
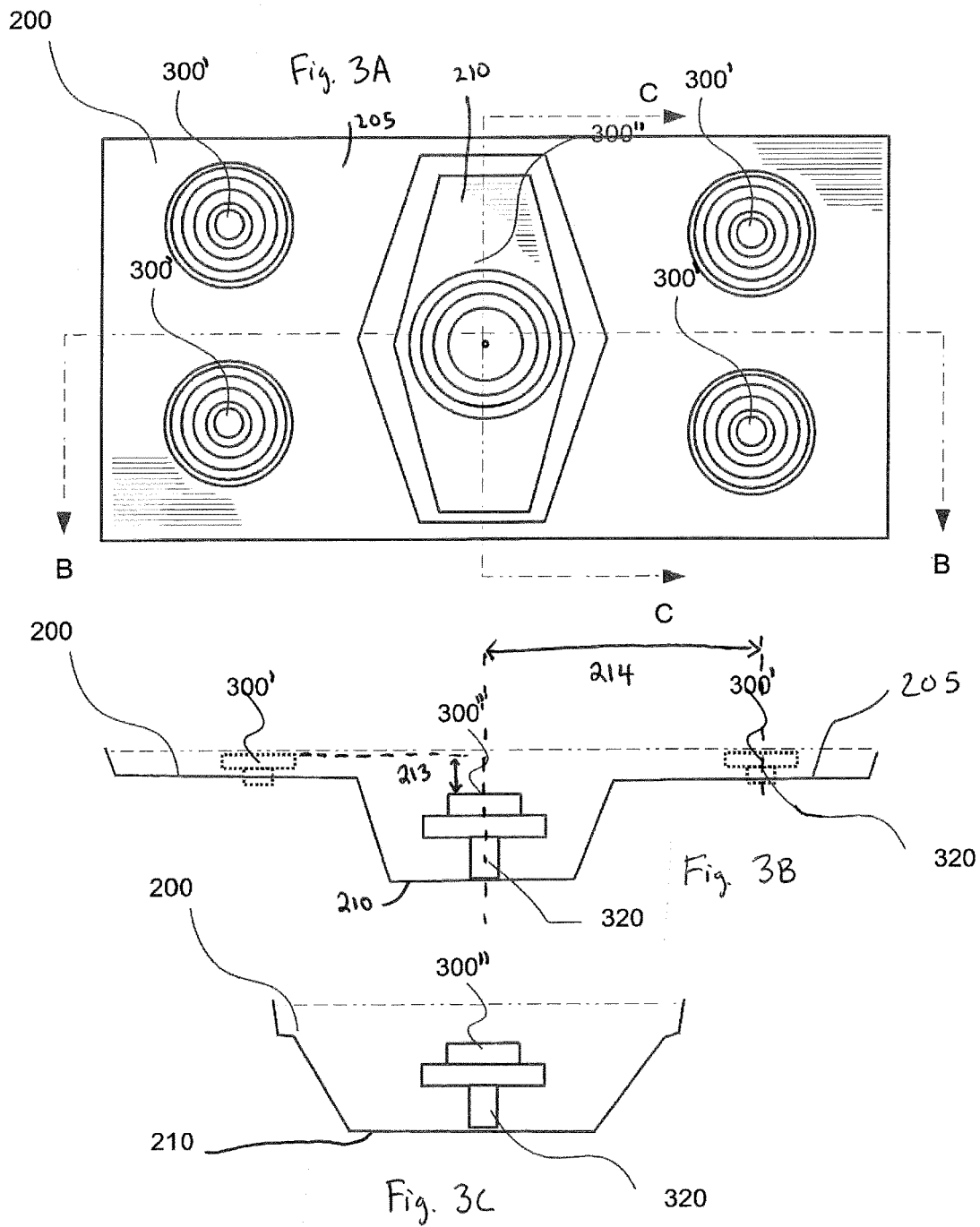
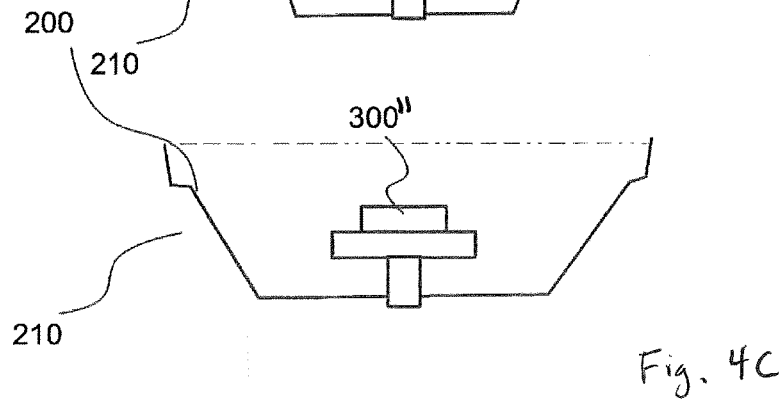
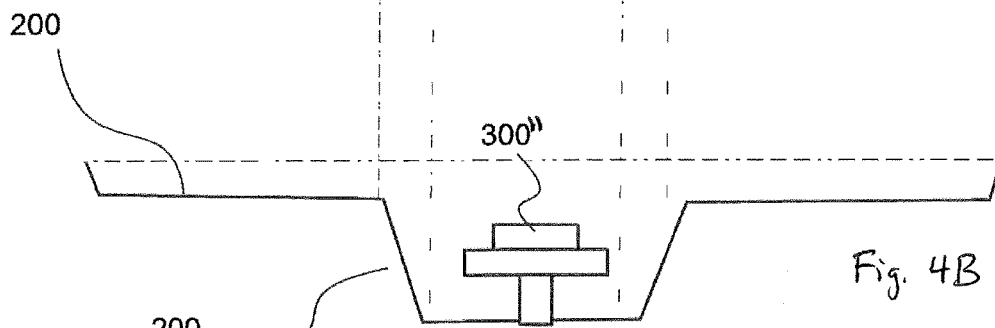
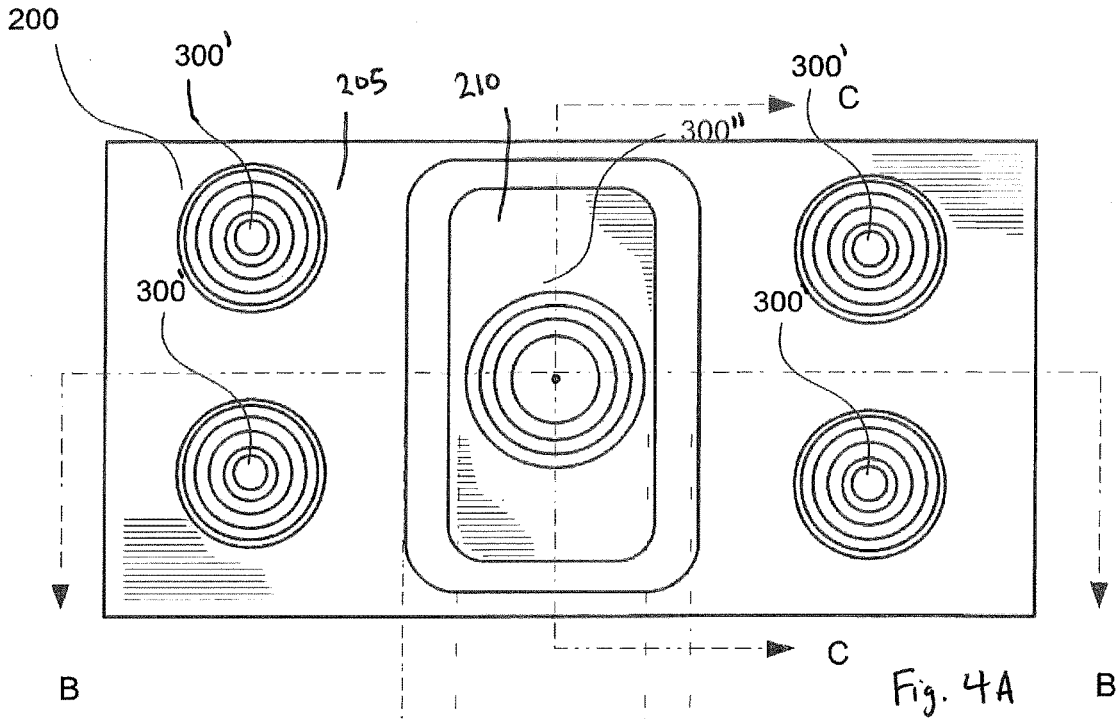


Fig. 2E





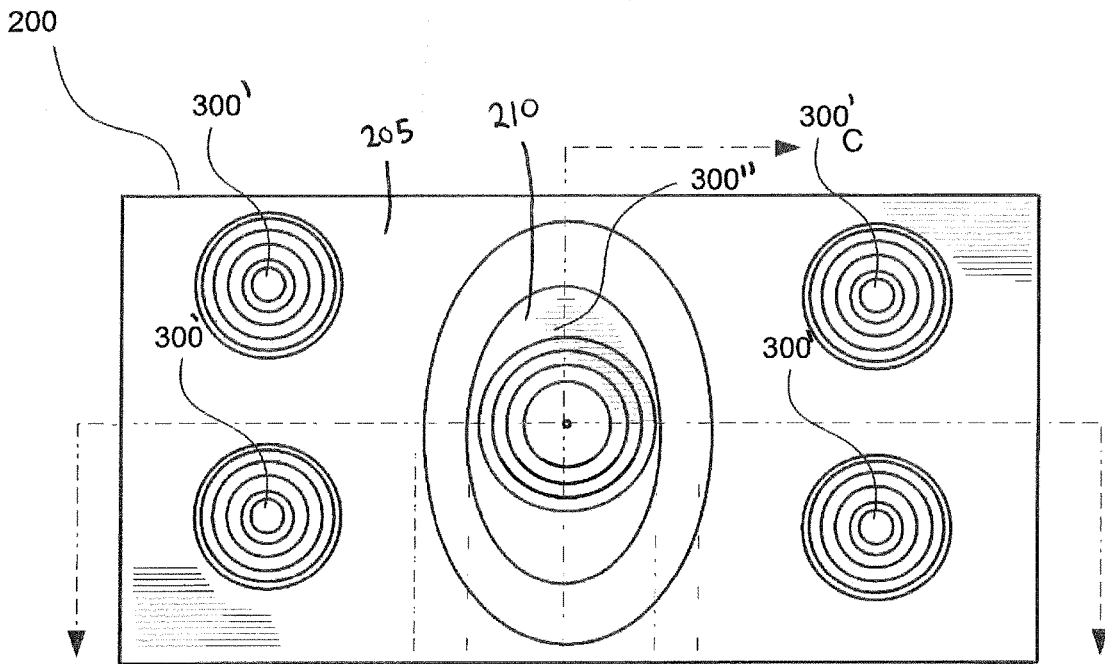


Fig. 5A

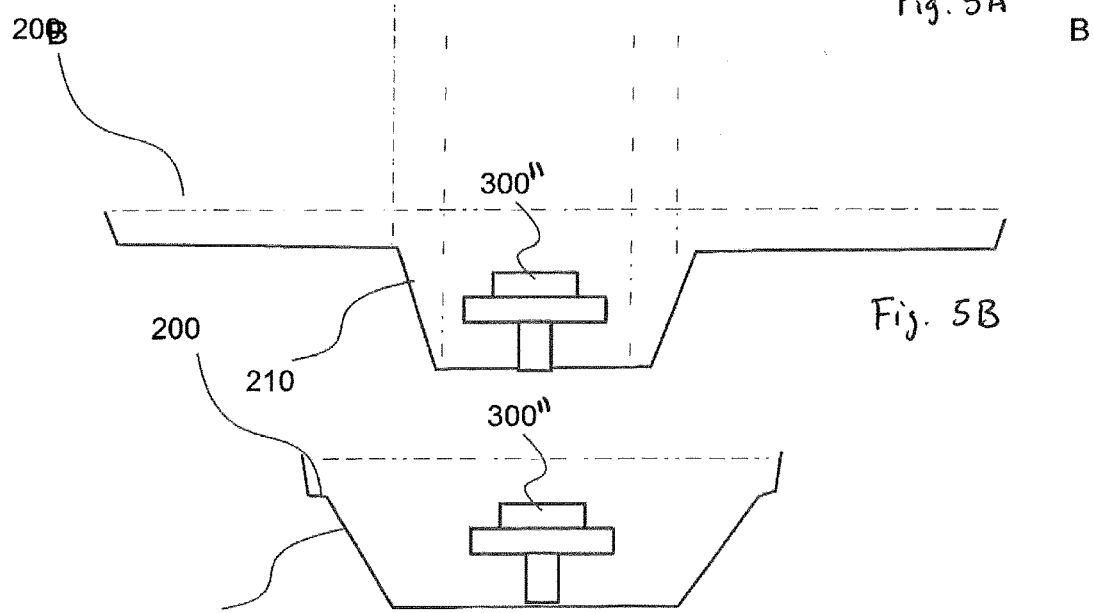


Fig. 5B

Fig. 5C

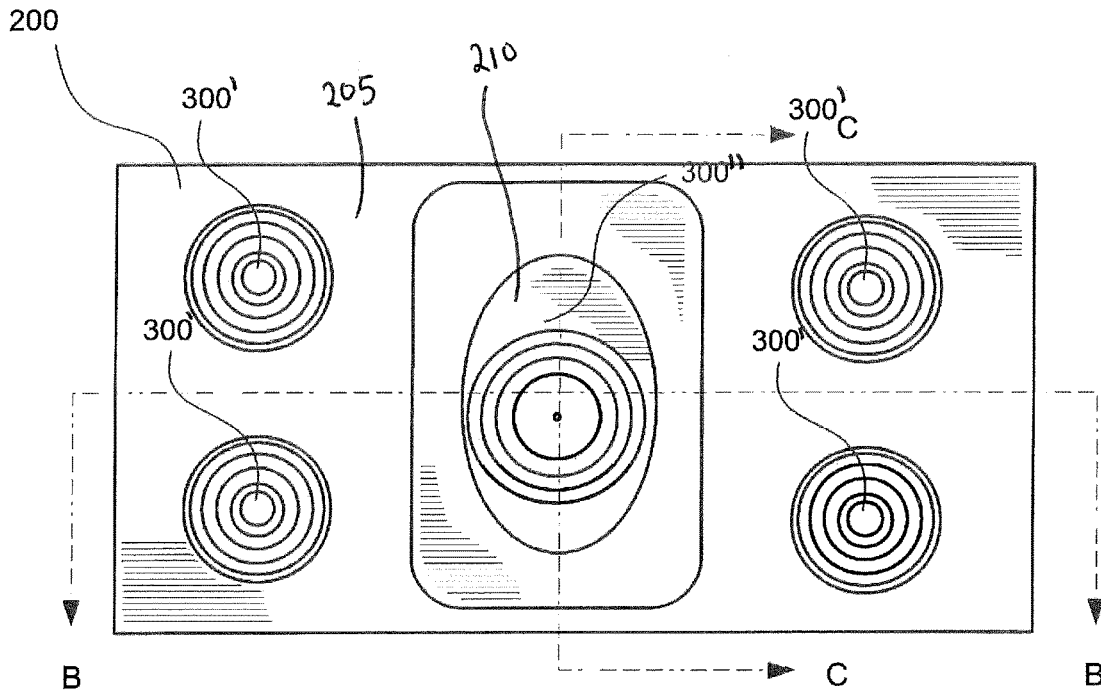


Fig. 6A

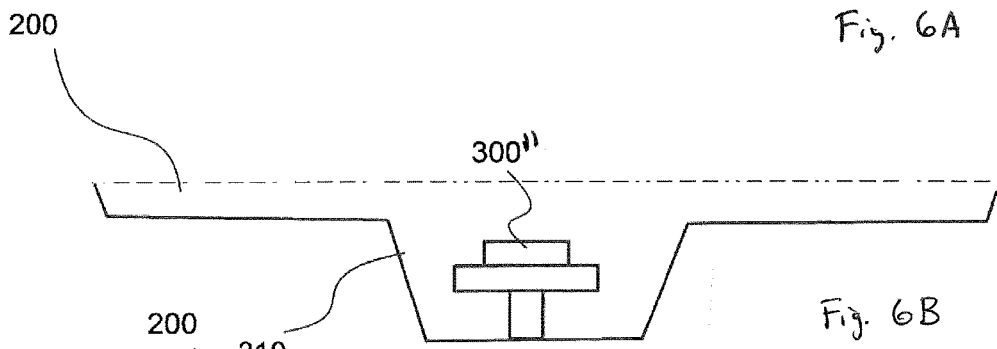


Fig. 6B

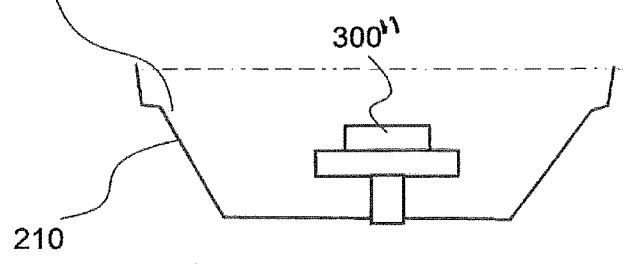


Fig. 6C

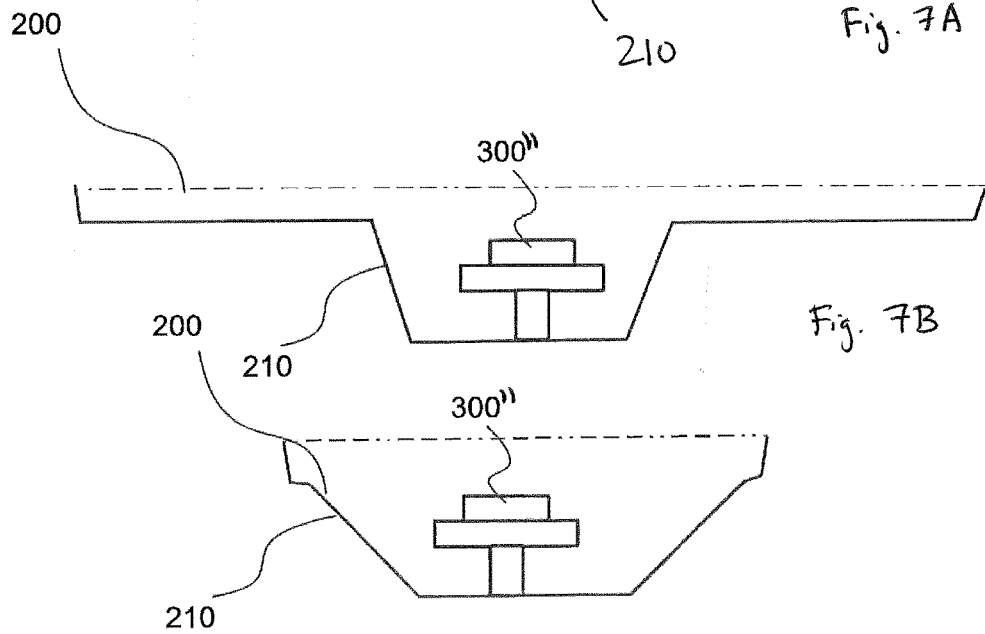
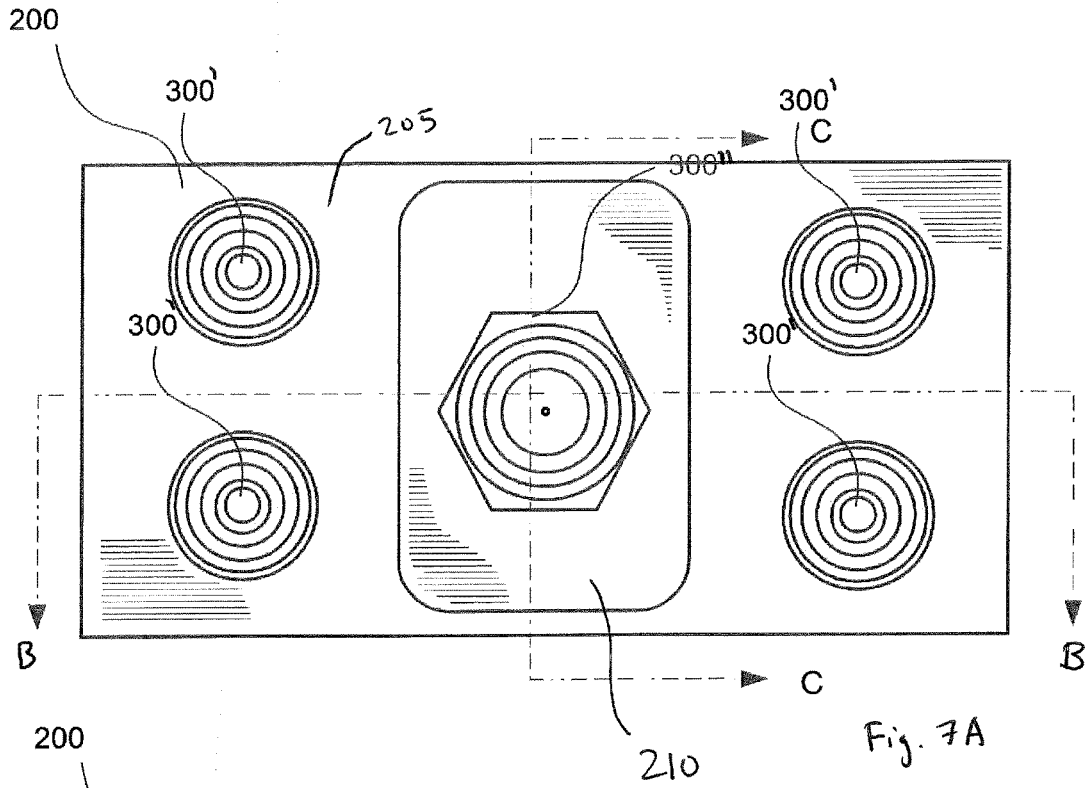
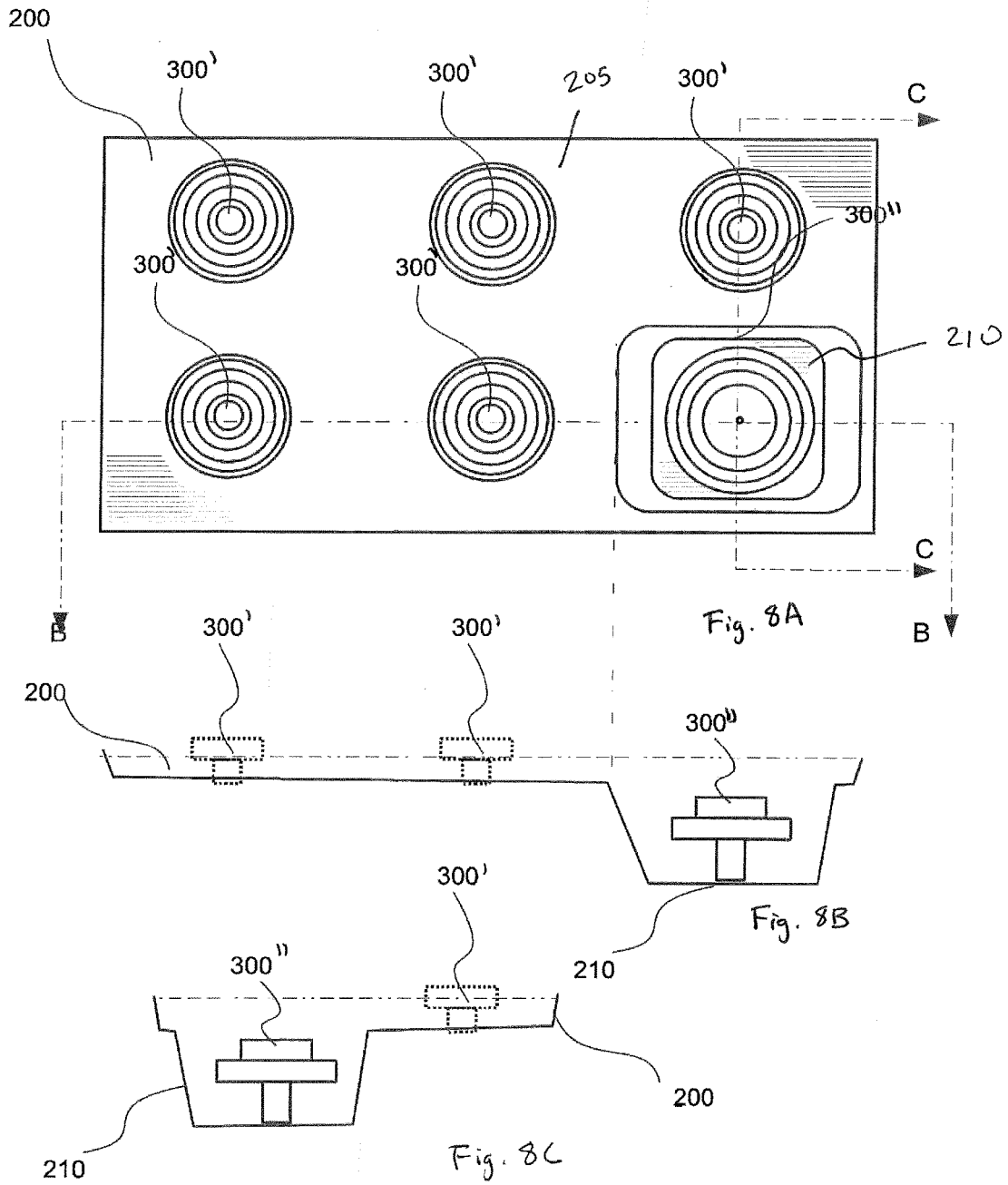


Fig. 7C



COOKING RANGE

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Patent Application No. 62/610,644 filed on Dec. 27, 2017, the entirety of which is incorporated herein by reference.

TECHNICAL FIELD

[0002] This disclosure relates generally to the field of cooking and more specifically to a cooking range.

BACKGROUND

[0003] Traditionally, a cooking range includes two or more heat sources (e.g., gas burners) positioned adjacent to each other. These heat sources may be utilized to cook food on the cooking range. Such traditional cooking ranges, however, may be deficient.

SUMMARY

[0004] In a first example, a cooking range comprises: a frame having an upper rim surrounding an upper opening of a cavity; a pan coupled to the frame, the pan extending downward into the upper opening of the cavity, the pan having an upper level and a lower level, the lower level being positioned vertically lower than the upper level, the pan further having one or more upward extending ridges that separate the upper level from the lower level, wherein the top-most portion of each of the ridges is positioned vertically higher than the upper level; and a plurality of heat sources, wherein a first heat source of the plurality of heat sources is positioned within the lower level, wherein a second heat source of the plurality of heat sources is positioned within the upper level, wherein a third heat source of the plurality of heat sources is positioned within the upper level, wherein a fourth heat source of the plurality of heat sources is positioned within the upper level, wherein the first heat source is positioned vertically lower than each of the second, third, and fourth heat sources, wherein the first heat source is configured to provide a higher maximum thermal output than each of the second, third, and fourth heat sources, wherein the maximum thermal output of the first heat source is at least about 26,000 British thermal units (BTUs), and wherein the maximum thermal output of each of the second, third, and fourth heat sources is at least about 18,000 BTUs.

[0005] In a second example, a cooking range comprises a frame having an upper rim surrounding an upper opening of a cavity; a pan coupled to the frame, the pan extending downward into the upper opening of the cavity, the pan having an upper level and a lower level, the lower level being positioned vertically lower than the upper level; and a plurality of heat sources, wherein a first heat source of the plurality of heat sources is positioned within the lower level, wherein a second heat source of the plurality of heat sources is positioned within the upper level, wherein the first heat source is positioned vertically lower than the second heat source, wherein the first heat source is configured to provide a higher maximum thermal output than the second heat source.

[0006] Another example includes any such cooking range, wherein the first and second heat sources are gas burners;

and gas outlet orifices of the first heat source are positioned vertically lower than gas outlet orifices of the second heat source.

[0007] Another example includes any such cooking range, wherein the upper level comprises two upper level portions; and the two upper level portions are positioned on opposing sides of the lower level.

[0008] Another example includes any such cooking range, wherein the upper level surrounds the lower level.

[0009] Another example includes any such cooking range, wherein the pan further comprises one or more upward extending ridges that separate the upper level from the lower level, wherein the top-most portion of each of the ridges is positioned vertically higher than the upper level.

[0010] Another example includes any such cooking range, wherein the maximum thermal output of the first heat source is at least about 30,000 British thermal units (BTUs).

[0011] Another example includes any such cooking range, wherein the maximum thermal output of the first heat source is at least about 28,000 British thermal units (BTUs).

[0012] Another example includes any such cooking range, wherein the maximum thermal output of the first heat source is at least about 26,000 British thermal units (BTUs).

[0013] Another example includes any such cooking range, wherein the maximum thermal output of the second heat source is at least about 18,000 British thermal units (BTUs).

[0014] Another example includes any such cooking range, wherein the maximum thermal output of the first heat source is greater than the maximum thermal output of the second heat source by at least about 5,000 British thermal units (BTUs)-7,000 BTUs.

[0015] Another example includes any such cooking range, wherein at least two additional heat sources of the plurality of heat sources are positioned within the upper level; and the first heat source is further configured to provide a higher maximum thermal output than each of the at least two additional heat sources.

[0016] Another example includes any such cooking range, wherein the second heat source and the at least two additional heat sources surround the first heat source.

[0017] Another example includes any such cooking range, wherein the top-most portion of the first heat source is positioned vertically lower than the upper level.

[0018] In a third example, a cooking range pan comprises an upper flange configured to be coupled to a frame of a cooking range; an upper level coupled to the upper flange and comprising one or more heat source holes that extend through a depth of the upper level; and a lower level coupled to the upper level and comprising one or more additional heat source holes that extend through a depth of the lower level, wherein the lower level is positioned vertically lower than the upper level, wherein each of the heat source holes and the additional heat source holes are configured to surround a portion of a respective heat source of the cooking range.

[0019] Another example includes any such cooking range pan, wherein the upper level comprises two upper level portions; and the two upper level portions are positioned on opposing sides of the lower level.

[0020] Another example includes any such cooking range pan, wherein the upper level surrounds the lower level.

[0021] Another example includes any such cooking range pan, wherein the pan further comprises one or more upward extending ridges that separate the upper level from the lower

level, wherein the top-most portion of each of the ridges is positioned vertically higher than the upper level.

[0022] Another example includes any such cooking range pan, wherein the one or more additional heat source holes of the lower level comprises a single additional heat source hole.

[0023] Another example includes any such cooking range pan, wherein the one or more heat source holes of the upper level comprise at least three heat source holes that surround the one or more additional heat source holes of the lower level.

[0024] In a fourth example, a cooking range comprises: a frame; a cooking vessel support grate coupled to the frame to provide an upper surface to support a plurality of cooking vessels; a pan coupled to one of the cooking vessel support grate and the frame to have an upper surface disposed below the cooking vessel support grate and projected laterally under the area of the cooking vessel support grate, the pan comprising: an upper level comprising one or more heat source holes that extend through a depth of the upper level; and a lower level coupled to the upper level and comprising one or more additional heat source holes that extend through a depth of the lower level, wherein the lower level is positioned vertically lower than the upper level, wherein each of the heat source holes and the additional heat source holes are configured to accommodate a conduit to a respective heat source of the cooking range; a plurality of heat sources, each heat source having a burner with a plurality of orifices for providing a flame, wherein a first heat source of the plurality of heat sources is positioned within the lower level, wherein a second heat source of the plurality of heat sources is positioned within the upper level; a source of fuel in fluid communication with each of the burners of the respective heat sources via the associated conduit thereof, in which each of the burners is configured with a control of the fuel to the heat source to provide a flame having a maximum upper height when the control is providing a maximum quantity of fuel to each burner to provide a maximum thermal output of the burner; and wherein the first heat source is configured to provide a higher maximum thermal output than the second heat source.

[0025] Another example includes any such cooking range, wherein the first heat source is configured to have at least one of the orifices of the burner and the flame maximum upper height disposed more distal from the upper surface of the cooking vessel support grate than a corresponding one of the orifices of the burner and flame maximum upper height of the second heat source is distal from the upper surface of the food support grate.

[0026] Another example includes any such cooking range, wherein the maximum thermal output of the first heat source is at least about 25,000 British thermal units (BTUs).

[0027] Another example includes any such cooking range, wherein the maximum thermal output of the second heat source is at least about 18,000 British thermal units (BTUs), and wherein the maximum thermal output of the first heat source is greater than the maximum thermal output of the second heat source by at least about 5,000 BTUs.

[0028] Another example includes any such cooking range, wherein the maximum thermal output of the second heat source is at least about 18,000 British thermal units (BTUs) and the first heat source has a maximum thermal output of 5,000 BTU more than the second heat source.

[0029] Another example includes any such cooking range, further comprising a third, a fourth, and a fifth heat source of the plurality of heat sources, wherein each of the second, third, fourth, and fifth heat sources surround the first heat source.

[0030] Another example includes any such cooking range, wherein the third, fourth, and fifth heat sources are each positioned within the upper level.

[0031] Another example includes any such cooking range, wherein the maximum thermal output of at least one of the third and fourth heat sources is at least about 18,000 British thermal units (BTUs).

[0032] Another example includes any such cooking range, wherein the maximum thermal output of each of the third and fourth heat sources is at least about 18,000 British thermal units (BTUs).

[0033] Another example includes any such cooking range, wherein the maximum thermal output of each of the second, third, and fourth heat sources is at least about 23,000 British thermal units (BTUs), and the maximum thermal output of the first heat source is at least about 30,000 BTUs.

BRIEF DESCRIPTION OF THE FIGURES

[0034] For a more complete understanding of the present disclosure and its features and advantages, reference is now made to the following description, taken in conjunction with the accompanying drawings, in which:

[0035] FIG. 1A is a side view illustration of an example cooking range having an example pan, where components of the cooking range are shown partially in a section view;

[0036] FIG. 1B is a perspective view of a kitchen appliance having the example cooking range and the example pan of FIG. 1A;

[0037] FIG. 1C is a top view of the range portion of the kitchen appliance of FIG. 1B;

[0038] FIG. 2A is a perspective view of the example pan of FIGS. 1A-1C;

[0039] FIG. 2B is a top view of the example pan of FIG. 2A;

[0040] FIG. 2C is a front view of the example pan of FIG. 2A;

[0041] FIG. 2D is a side view of the example pan of FIG. 2A;

[0042] FIG. 2E is a cross-sectional view of the example pan of FIG. 2B, taken along section line E-E of FIG. 2B;

[0043] FIG. 3A is a top view of a portion of an example cooking range having another example pan;

[0044] FIG. 3B is a cross-sectional view of the example pan of FIG. 3A, taken along section line B-B of FIG. 3A;

[0045] FIG. 3C is another cross-sectional view of the example pan of FIG. 3A, taken along section line C-C of FIG. 3A;

[0046] FIG. 4A is a top view of a portion of an example cooking range having another example pan;

[0047] FIG. 4B is a cross-sectional view of the example pan of FIG. 4A, taken along section line B-B of FIG. 4A;

[0048] FIG. 4C is another cross-sectional view of the example pan of FIG. 4A, taken along section line C-C of FIG. 4A;

[0049] FIG. 5A is a top view of a portion of an example cooking range having another example pan;

[0050] FIG. 5B is a cross-sectional view of the example pan of FIG. 5A, taken along section line B-B of FIG. 5A;

[0051] FIG. 5C is another cross-sectional view of the example pan of FIG. 5A, taken along section line C-C of FIG. 5A;

[0052] FIG. 6A is a top view of a portion of an example cooking range having another example pan;

[0053] FIG. 6B is a cross-sectional view of the example pan of FIG. 6A, taken along section line B-B of FIG. 6A;

[0054] FIG. 6C is another cross-sectional view of the example pan of FIG. 6A, taken along section line C-C of FIG. 6A;

[0055] FIG. 7A is a top view of a portion of an example cooking range having another example pan;

[0056] FIG. 7B is a cross-sectional view of the example pan of FIG. 7A, taken along section line B-B of FIG. 7A;

[0057] FIG. 7C is another cross-sectional view of the example pan of FIG. 7A, taken along section line C-C of FIG. 7A;

[0058] FIG. 8A is a top view of a portion of an example cooking range having another example pan;

[0059] FIG. 8B is a cross-sectional view of the example pan of FIG. 8A, taken along section line B-B of FIG. 8A; and

[0060] FIG. 8C is another cross-sectional view of the example pan of FIG. 8A, taken along section line C-C of FIG. 8A.

DETAILED DESCRIPTION

[0061] Embodiments of the present disclosure are best understood by referring to FIGS. 1A-8C of the drawings, like numerals being used for like and corresponding parts of the various drawings.

[0062] Traditionally, a cooking range includes two or more heat sources (e.g., gas burners) positioned adjacent to each other. These heat sources may be utilized to cook food on the cooking range. Such traditional cooking ranges, however, may be deficient. For example, a user may desire to have a cooking range with a heat source that has high maximum thermal output, such as a maximum thermal output of at least 20,000 British thermal units (BTUs) in order to more quickly boil water, more quickly heat liquids in cooking, or for providing a very hot cooking vessel (e.g., pot, pan, griddle, skillet, wok) to rapidly sear food or stir fry meals. Such heat sources, however, may run the risk of overheating other components, may interfere with the functioning of other heat sources (e.g., may restrict the air flow to another gas burner), or may increase the risk of starting a fire in the kitchen (e.g., rising hot air from the heat sources may overheat surrounding surfaces to dangerous levels). Additionally, the ability to utilize a heat source that has high maximum thermal output may be limited by how much air might be needed by adjacent and surrounding heat sources to also achieve complete combustion. In residential kitchens, users may need to compromise between excessive clearances from potentially flammable materials (e.g., such as walls and cabinets) and a desired high maximum thermal output. As such, typical cooking ranges do not include a heat source having a high maximum thermal output.

[0063] Furthermore, the few cooking ranges that do include a heat source having a high maximum thermal output tend to require a large footprint (and/or heat resistant upper panels) so that the heat sources can be positioned further way from each other, and so that the heat sources can also be positioned further away from surrounding walls or cabinets. Such a large footprint may not be desirable,

especially in residential settings where kitchen space may be at a premium. Additionally, even with the large footprint, typical cooking ranges may have been prevented from having a heat source with a high maximum thermal output because the heat source would need to be positioned too close to a support grate in the vertical direction. This lack of distance in the vertical direction tends to restrict the flow of air reaching the cooking gases of a gas burner, preventing the cooking gas from being combusted completely. Complete combustion of cooking gas is required to avoid health hazards (such as from carbon monoxide, or from the soot created by partially combusted fuel), and is further required to meet health and safety standards.

[0064] Contrary to these traditional cooking ranges, the cooking range 1000 and/or pan 200 of FIGS. 1A-8C may address one or more of these deficiencies. For example, the cooking range 1000 may include a pan 200 that has an upper level 205 and a lower level 210, both of which may include one or more heat sources 300 (e.g., 300', 300"). The lower level 210 may be positioned vertically lower than the upper level 205. Also, the heat source(s) 300" within the lower level 210 may be positioned vertically lower than the heat source(s) 300' within the upper level 205. In some examples, the vertical distance between the lower level 210 and the upper level 205 (and/or between the heat source(s) 300" and the heat source(s) 300') may allow the heat source 300" to be a heat source having a high maximum thermal output (e.g., a maximum thermal output of at least 20,000 BTUs), without overheating components that would be placed in a cavity below the cooking range and/or without interfering with the operation of the other heat sources 300, in some examples. Also, the vertical distance may allow the heat source 300" to have a higher maximum thermal output than that of the heat sources 300'. In such examples, the vertical distance may provide an air gap between the heat sources 300', 300" that allows a sufficient amount of air to reach the heat source(s) 300", even when, for example, the heat sources 300', 300" are all emitting their maximum thermal output, in some examples. Furthermore, in such examples, the vertical distance may prevent cooking range 1000 from requiring an undue amount of spacing between the heat sources 300', 300" and/or between adjacent surfaces (e.g., cabinetry) and the heat sources 300', 300".

[0065] It should be understood that the vertical distance (e.g., the vertical distance between the lower level 210 and the upper level 205 and/or between the heat source(s) 300" and the heat source(s) 300') is generally referred to as relative distance from the ground, or a relative distance from a top surface of a cooking vessel support grate (discussed below). An example function of the lower level 210 of the pan 200 is to provide more air flow to the heat sources 300" (e.g., burners) therein and enable high thermal output when adjacent or surrounding heat sources 300' (e.g., burners) in the upper level 205 also operate at a relatively high output, such as 1, 2, or 4 adjacent heat sources 300' having a thermal output of at least 5,000 BTUs less than the heat source(s) 300" in the lower level 210.

[0066] To achieve this and other beneficial functions, the heat source(s) 300" in the lower level 210 may be configured in several ways relative to the heat sources 300' in the upper level 205 of the pan 200. For example, the top most portion of the gas orifice(s) of the heat sources 300" within the lower level 210 may be vertically lower (e.g., vertically offset) than the top most portion of the gas orifice(s) of the heat

sources 300' within the upper level 205. As another example, the maximum upper height of a flame emitted by the heat source(s) 300" (when emitting the flame at the maximum thermal output) within the lower level 210 may be vertically lower (e.g., vertically offset) than the maximum upper height of a flame emitted by the heat source(s) 300' (when emitting the flame at the maximum thermal output) within the upper level 205. Generally, the benefits are achieved when the heat source(s) 300" within the lower level 210 are configured to either have at least one (i.e., one, the other, or both) of: (1) its gas orifices disposed more vertically distal from the upper surface of the cooking vessel support grate (or disposed more vertically closer to the ground) than the gas orifices of the heat source(s) 300' within the upper level 205; and (2) its flame having a maximum upper height that is disposed more vertically distal from the upper surface of the cooking vessel support grate (or disposed more vertically closer to the ground) than the maximum upper height of the flame emitted by the heat source(s) 300' within the upper level 205.

[0067] FIGS. 1A-1C illustrate an example cooking range 1000 having an example pan 200. The cooking range 1000 may be any range used for cooking. As an example, the cooking range 1000 may be a gas cooking range, an electric cooking range, any other cooking range, or any combination of the preceding. The cooking range 1000 may be integrated with an oven, a kitchen appliance that sits on the floor, any other kitchen appliance (e.g., a warming drawer, microwave oven, etc.), any similar cooking equipment, or any combination of the preceding. An example of such an integrated cooking range 1000 is illustrated in FIGS. 1B-1C, which illustrates the cooking range 1000 being integrated with an appliance having an oven 1001. Alternatively, the cooking range 1000 may be a self-contained unit that fits inside of (and is supported by) an upper rim surrounding an opening or cavity (e.g., a rectangular hole) in a counter, counter top, cabinet unit, or cabinet top. The oven, appliance, counter, counter top, cabinet unit, or cabinet top of the cooking range 1000 (e.g., an integrated or self-contained cooking range 1000) may be referred to as a frame 100 for the cooking range 1000.

[0068] As is illustrated in FIG. 1A, the frame 100 for the cooking range 1000 may have an upper rim 110 that surrounds an upper opening 122 of a cavity 120 within the frame 100. The cavity 120 may contain other components of the cooking range 1000 (or of the integrated appliance), such as gas valves, gas lines, supply tubes, and/or venturi devices to control the flow and pressure of the gas to heat sources 300. The cavity 120 may also contain electronic devices, such as digital or analog controls for an oven 1001 below the cooking range 1000, or transceivers used to communicate with external controllers (e.g., wireless devices like Smart Phones and Tablet computers with Wi Fi or near field communication hardware).

[0069] The cooking range 1000 may include one or more heat sources 300 (e.g., 300' and 300") that generate heat for cooking. The heat sources 300 may be any type of heat sources for use in a cooking range. For example, the heat sources 300 may be gas burners that emit a flame when turned on. Such gas burners may include gas orifices 310 that release combustion gas, emanating flames from the gas burners. As another example, the heat sources 300 may be electric resistance heating coils. Each of the heat sources 300 may have a maximum thermal output, which refers to the maximum amount of thermal energy that can be provided by

the heat source. The maximum thermal output of a heat source 300 may be the maximum thermal output advertised by the manufacturer/seller/installer of the heat source 300. In other examples, the maximum thermal output of a heat source 300 may be the maximum thermal output that is actually output by the heat source 300 when in operation in the cooking range 1000. In further examples, the maximum thermal output of a heat source 300 may be the maximum thermal output that is advertised or actually output by the heat source 300 when the heat source 300 is provided with the maximum quantity of fuel by a controller (e.g., the gas line or gas knob is fully turned on). This maximum thermal output may emit a flame having a maximum upper height (e.g., the top-most portion of the flame). In some examples, this maximum thermal output may correspond to the number of orifices 310 in the heat source 300 that provide flames. The heat sources 300 may increase in diameter to provide more orifices 310 and/or use an inner and outer gas manifold to provide concentric rings of small adjacent flames from adjacent orifices 310 in each ring of the heat source 300. Further details regarding the maximum thermal output of example heat sources 300 are discussed below.

[0070] The cooking range 1000 may include any number of heat sources 300. For example, the cooking range 1000 may include 1 heat source 300, 2 heat sources 300, 3 heat sources 300, 4 heat sources 300, 5 heat sources 300, 6 heat sources 300, or any other number of heat sources 300. As is seen in FIGS. 1B and 1C, the illustrated cooking range 1000 includes 5 gas burners 300 (e.g., gas burners 300' and 300"). As is further illustrated, the gas burners 300 are spaced apart from each other, so as to provide a hot flame under the desired portions of the cooking vessel support grate 600. This causes the flame regions to not overlap. Additionally, as is seen in FIGS. 1B and 1C, the gas burners 300' surround the centralized gas burner 300". To control the cooking range 1000 (or other aspects of the appliance, such as the oven 1001), the cooking range 1000 may include a control panel 130 and/or heat source control knobs 140, as is illustrated in FIGS. 1B and 1C. Further details regarding examples of the heat sources 300 are discussed in detail below.

[0071] The cooking range 1000 may further include a pan 200 coupled to the frame 100 (and/or the cooking vessel support grate 600). The pan 200 may provide a cleanable surface to catch and contain food drippings, food splatters, accidental spills, fluid boiling over from a pot, spilt food, or any combination of the preceding. The pan 200 may be coupled to the frame 100, and may extend downward into the upper opening 122 of the cavity 120. To couple the pan 200 to the frame 100, the pan 200 may include an upper flange 202 that is positioned on (e.g., rested on) the upper rim 110 of the frame 100. This may cause the pan 200 to be suspended from the upper rim 110 of the frame 100. The pan 200 may be made of stainless steel (e.g., highly polished stainless steel), porcelain, any other cooking material, or any combination of the preceding.

[0072] The upper flange 202 of the pan 200 may surround a pan body 204. The pan body 204 may include an upper level 205 and a lower level 210. One or more heat sources 300' may be positioned within the upper level 205 (as is illustrated in FIG. 1C) and one or more heat sources 300" may be positioned within the lower level 210 (as is illustrated in FIGS. 1A-1C). The upper level 205 may include any number of heat source 300 positioned within the upper

level 205 (where heat sources 300 positioned within the upper level 205 are referred to as heat sources 300'). For example, the upper level 205 may include one heat source 300', two heat sources 300', three heat sources 300', four heat sources 300', five heat sources 300', six heat sources 300', or any other number of heat sources 300'. The lower level 210 may also include any number of heat source 300 positioned within the lower level 210 (where heat sources 300 positioned within the lower level 210 are referred to as heat sources 300"). For example, the lower level 210 may include one heat source 300", two heat sources 300", three heat sources 300", four heat sources 300", five heat sources 300", six heat sources 300", or any other number of heat sources 300". As is illustrated in FIGS. 1A-1C, the upper level 205 includes four heat source 300' and the lower level 210 includes one heat source 300".

[0073] In order for the heat sources 300 to be positioned within the upper level 205 and lower level 210, the levels 205 and 210 may include heat source holes 211 that extend entirely through the corresponding depth of the pan body 204. The heat source holes 211 may allow the heat source 300 to extend upward from the cavity 120 and into the pan 200, causing the pan 200 to surround the heat sources 300. In some examples, the pan 200 may surround the sides and bottom of the heat source 300, causing the heat source 300 to be disposed proximal to a bottom of the pan 200. In such examples, the heat sources 300 (or the orifices 310 of the heat sources 300) may be positioned upward from the bottom surface of levels 205, 210 to allow for the flow of air to react with combustibles gas (e.g., propane or natural gas). In some examples, each of the heat source holes 211 may accommodate a conduit of a respective heat source 300. This conduit may deliver a source of fuel to the heat source 300 (e.g., it may deliver gas to a gas burner), thereby allowing a source of the fuel (e.g., a gas line) to be in fluid communication with the heat source 300 through the depth of the pan 200.

[0074] As is illustrated in FIG. 1A, the lower level 210 of the pan 200 may be positioned vertically lower than the upper level 205 of the pan 200 (e.g., in relation to the cooking vessel support grate 600, in relation to the upper flange 202 of the pan 200, etc.). In FIG. 1A, this difference in vertical height between the lower level 210 and the upper level 205 is illustrated by arrow 212. The difference in vertical height between the lower level 210 and the upper level 205 (i.e., arrow 212) may be any amount. For example, the difference in vertical height may be, or may be about (i.e., where "about" refers to +/-10 percent), 0.5 inches, 1 inch, 2 inches, 3 inches, 5 inches, 6 inches, any other amount, a range of (or a range of about) 0.5 inches-6 inches, 0.5 inches-5 inches, 0.5 inches-3 inches, 0.5 inches-2 inches, at least 0.5 inches, at least 1 inch, at least 1.5 inches, at least 2 inches, at least 3 inches, or any other range.

[0075] In some examples, the difference in vertical height between the lower level 210 and the upper level 205 may cause the top-most portion of the heat source(s) 300" positioned within the lower level 210 to be positioned vertically lower than the upper level 205, as is seen in FIGS. 1A and 3B. In some examples, the difference in vertical height between the lower level 210 and the upper level 205 may cause the heat source(s) 300" positioned within the lower level 210 to be positioned vertically lower than one or more (or all) of the heat source(s) 300' positioned within the upper level 205. This difference in vertical height is illustrated by

arrow 213 (an example of which is shown in FIG. 3B, which shows the vertical height difference between a top-most portion of a heat source 300' and a top-most portion of a heat source 300"). The difference in vertical height between the heat source(s) 300" positioned within the lower level 210 and the heat source(s) 300' positioned within the upper level 205 (e.g., between the top most portions of the heat sources 300', 300", between the orifices 310 of the heat sources 300', 300", between a maximum upper height of flames emitted by heat sources 300', 300") may be any amount. For example, the difference in vertical height may be, or may be about, 0.5 inches, 1 inch, 2 inches, 3 inches, 5 inches, 6 inches, any other amount, a range of (or range of about) 0.5 inches-6 inches, 0.5 inches-5 inches, 0.5 inches-3 inches, 0.5 inches-2 inches, at least 0.5 inches, at least 1 inch, at least 1.5 inches, at least 2 inches, at least 3 inches, or any other range. In a preferable example, the difference in vertical height may be any height difference that causes the orifices 310 of the heat source(s) 300" to be positioned vertically lower than the orifices 310 of the heat source(s) 300'. In another preferable example, the difference in vertical height may be any height difference that causes the top-most portion of the heat source(s) 300" to be positioned vertically lower than the top-most portion of the heat source(s) 300' (e.g., when considered relative to the top 601 of the grate 600).

[0076] The lower vertical positioning of the heat source(s) 300" within the lower level 210 may allow these heat sources 300" to be heat sources having a high maximum thermal output, in some examples. As such, each of the heat sources 300" may have a high maximum thermal output of, or about, 20,000 BTUs, 26,000 BTUs, 28,000 BTUs, 30,000 BTUs, 35,000 BTUs, any other amount over 20,000 BTUs, a range of (or a range of about) 20,000-35,000 BTUs, 20,000-30,000 BTUs, 20,000-28,000 BTUs, 20,000-26,000 BTUs, at least 20,000 BTUs, at least 26,000 BTUs, at least 28,000 BTUs, at least 35,000 BTUs, or any other range above 20,000 BTUs. The cooking range 1000 may include one or more of these heat sources 300" having a high maximum thermal output because the lower vertical positioning of the heat source(s) 300" (in relation to the heat source 300') may create an air gap between the heat sources 300', 300" that allows a sufficient amount of air to reach the heat source(s) 300". This sufficient amount of air may allow a heat source 300" having a high maximum thermal output to be positioned in the cooking range 1000 (in the lower level 210) without unduly affecting the other heat sources 300, and without being unduly affected by the other heat source 300. As such, the air gap may prevent the heat sources 300', 300" from competing with each other for sufficient oxygen, and may thereby allow the heat source 300" to emit its high maximum thermal output, even when the other heat sources 300 are also emitting their maximum thermal output. Instead, the air gap between the heat sources 300', 300" may help create a wide vertical annulus surrounding the heat source 300" which may provide more opportunity for air to flow to the orifices 310 of the heat source 300".

[0077] The cooking range 1000 may also include one or more of these heat source 300" having a high maximum thermal output because the lower vertical positioning of the heat source(s) 300" (in relation to the heat sources 300') may create a larger vertical air gap between the heat sources 300" and an upper surface 601 of a cooking vessel support grate 600 (discussed further below). This vertical air gap between

the heat source(s) 300" and the cooling vessel support grate 600 may also help create a wide vertical annulus surrounding the heat source 300" which may provide more opportunity for air to flow to the orifices 310 of the heat source 300". Also, because the heat source 300" has a high maximum thermal output, it may emit a larger diameter flame "crown" (e.g., from a ring of orifices 310), which may reduce one or more disadvantages caused by the larger vertical air gap between the heat source 300" and the cooling vessel support grate 600. For example, typically it is desirable to space the flames of a heat source closer to a cooking vessel support grate, so as to increase the transfer efficiency from the flames. However, in some examples, the heat source 300" may emit larger flames because the heat source 300" may generally have a larger diameter gas ring and wider and/or more numerous orifices 310 to accommodate a larger gas flow. These larger flames emitted by the heat source 300" may allow for sufficient transfer efficiency despite the larger vertical air gap.

[0078] The lower vertical positioning of the heat source(s) 300" within the lower level 210 (in comparison to the higher vertical positioning of the heat source(s) 300' within the upper level 205) may allow the heat source(s) 300', 300" to be positioned closer together in the horizontal direction (saving kitchen counter space, for example), while still allowing the heat source(s) 300', 300" to each provide their maximum thermal output, in some examples. This spacing between adjacent heat source(s) 300', 300" is illustrated by arrow 214 (an example of which is shown in FIG. 3B, which shows the horizontal distance between the center-point of a heat source 300" and the center-point of an adjacent heat source 300'). This horizontal distance between adjacent heat source(s) 300', 300" may be (or may be about) 8 inches, 9 inches, 10 inches, 12 inches, 14 inches, 16 inches, 18 inches, 20 inches, 24 inches, any other amount greater than 8 inches, a range of (or a range of about) 8 inches-20 inches, 10 inches-20 inches, 8 inches-10 inches, at least 8 inches, at least 10 inches, at least 20 inches, less than 20 inches, less than 15 inches, or any other range greater than 8 inches. In some examples, the smaller spacing between adjacent heat sources 300', 300" may be able to accommodate typical size cooking vessels (e.g., pots, pans, and griddles) used in either industrial, commercial, or consumer kitchens.

[0079] The lower vertical positioning of the heat source(s) 300" within the lower level 210 (in comparison to the higher vertical positioning of the heat source(s) 300' within the upper level 205) may allow these heat sources 300" to have a higher maximum thermal output than that of the heat source(s) 300' positioned within the upper level 205, in some examples. The maximum thermal output of the heat source(s) 300" positioned within the lower level 210 may be higher than that of the heat source(s) 300' positioned within the upper level 205 by any amount. For example, one or more (or all) of the heat source(s) 300" may each have a maximum thermal output that is higher than that of each of one or more (or all) of the heat source(s) 300' by (or by about) 500 BTUs, 1,000 BTUs, 2,000 BTUs, 5,000 BTUs, 7,500 BTUs, 10,000 BTUs, any other amount, by a range of (or by a range of about) 500-10,000 BTUs, 1,000-10,000 BTUs, 5,000-10,000 BTUs, 5,000-7,000 BTUs, or any other range.

[0080] As a preferable example of this, each of the heat sources 300" (e.g., a single centralized heat source 300") positioned within the lower level 210 may have a maximum thermal output of at least about 25,000 BTUs (and more

preferably at least about 28,000 BTUs), while each of the heat sources 300' (e.g., two or more heat sources 300') positioned within the upper level 205 may have a maximum thermal output of at least about 18,000 BTUs (but less than that of the heat sources 300"). As another preferable example of this, each of the heat sources 300" (e.g., a single centralized heat source 300") positioned within the lower level 210 may have a maximum thermal output of at least 28,000 BTUs or at least about 28,000 BTUs, while each of the heat sources 300' (e.g., four adjacent heat sources 300', as is seen in FIG. 1B) positioned within the upper level 205 may have a maximum thermal output of at least 15,000 BTUs or at least about 15,000 BTUs (but less than that of the heat sources 300").

[0081] As a further preferable example, each of the heat sources 300" (e.g., a single centralized heat source 300") positioned within the lower level 210 may have a maximum thermal output of at least 26,000 BTUs or at least about 26,000 BTUs, while each of the heat sources 300' (e.g., three or more heat sources 300', or three or more adjacent heat source 300') positioned within the upper level 205 may have a maximum thermal output of at least 18,000 BTUs or at least about 18,000 BTUs (but less than that of the heat sources 300"). As another preferable example, each of the heat sources 300" (e.g., a single centralized heat source 300") positioned within the lower level 210 may have a maximum thermal output of about 30,000 BTUs (or at least about 30,000 BTUs), while each of the heat sources 300' (e.g., three or more heat sources 300', or three or more adjacent heat source 300') positioned within the upper level 205 may have a maximum thermal output of about 23,000 BTUs (or at least about 23,000 BTUs, but less than that of the heat sources 300").

[0082] Although heat source(s) 300" positioned within the lower level 210 of the pan 200 have been described above as having a maximum thermal output that is higher than the maximum thermal output of the heat source(s) 300' positioned within the upper level 205, in some examples, the heat source(s) 300" may have a maximum thermal output that is not higher than the maximum thermal output of the heat source(s) 300'. For example, the heat source(s) 300', 300" may have the same maximum thermal output, or the heat source(s) 300" may have a maximum thermal output that is lower than that of one or more (or all) of the heat sources 300'.

[0083] As is illustrated in FIGS. 1A-1C, the cooking range 1000 may also include one or more cooking vessel support grates 600 disposed over and resting on the pan 200. The cooking vessel support grate 600 may be a support structure that supports a cooking vessel (e.g., a cooking pan, a cooking pot, etc.) over one or more of the heat sources 300 (e.g., gas burners), allowing the cooking vessel to be heated by the heat emitted by the heat sources 300. The cooking vessel support grate 600 may expand over an entire width of the pan 200, allowing it to support cooking vessels over the entire width of the pan 200. An upper surface (e.g., the upper surface of the upper level 205) of the pan 200 may be disposed below the cooking vessel support grate 600, and the pan 200 may project laterally underneath the area of the cooking vessel support grate 600.

[0084] The cooking range 1000 may include any number of cooking vessel support grates 600. For example, the cooking range 1000 may include 1 cooking vessel support grate 600, 2 cooking vessel support grates 600, 3 cooking

vessel support grates 600, 4 cooking vessel support grates 600, or any other number of cooking vessel support grates 600. In examples where the cooking range 1000 includes multiple cooking vessel support grates 600, the cooking vessel support grates 600 may be positioned adjacent to each other on the pan 200. As is illustrated in FIGS. 1B-1C, the cooking range 1000 includes 3 cooking vessel support grates 600 (e.g., 600a-600c).

[0085] The cooking vessel support grate 600 may include an upper surface (or plane) 601 that supports the cooking vessel over one or more of the heat source 300. The upper surface 601 may be defined by an expanse of interconnected support members. The interconnected support members may be shaped in any manner, and connected in any configuration that allows the support members to support one or more cooking vessels. In addition to supporting the cooking vessel above the heat sources 300, the interconnected support members of the upper surface 601 may also provide for the flow of air to react with the combustible gas of the heat source 300 (if any), and may allow various elements of the cooking process (e.g., hot combustion gas products, heated air, water vapor and carbon dioxide) to escape upward out of the cooking range 1000.

[0086] The cooking vessel support grate 600 may further include two or more legs 602 that extend downward from the upper surface 601 (e.g., extend downward from the interconnected support members that define the upper surface 601). When the cooking vessel support grate 600 is positioned on the cooking range 1000, the downward extending legs 602 may rest on the pan 200, holding the upper surface 601 a desired distance above pan 200 and/or the heat sources 300.

[0087] FIGS. 2A-2E illustrate various views of the example pan 200 of FIGS. 1A-1C. As is seen in FIGS. 2A-2E, the pan 200 may include an upper level 205 (which may be shallow and planar), and may further include a lower level 210. The upper level 205 may include two (or more) upper level portions 205', 205". In FIGS. 2A-2E, the upper level 205 includes two upper level portions (i.e., a first upper level portion 205' and a second upper level portion 205") that are positioned on opposing sides of the lower level 210.

[0088] The upper level 205 may include 4 heat sources 300' (not illustrated in FIGS. 2A-2E), with 2 of these heat sources 300' being positioned in the first upper level portion 205' and the other 2 heat sources 300' being positioned in the second upper level portion 205". These heat sources 300' may extend into the pan 200 through the heat source holes 211. The lower level 210 may include a single centralized heat source 300", which may extend into the pan 200 through the respective heat source hole 211. The heat source 300" in the lower level 210 may be the highest output heat source. That is, it may have a higher maximum thermal output than any of the other heat sources 300. As an example of this, the heat source 300" positioned in the lower level 210 may have a maximum thermal output of at least about 26,000 BTUs, while the four heat sources 300' positioned in the upper level 205 may each have a maximum thermal output of at least about 18,000 BTUs (but also less than the maximum thermal output of heat source 300"). As a result of being positioned in the lower level 210 of the otherwise planar pan 200, the heat source 300" may have orifices 310 that are positioned vertically lower (e.g., disposed below) the orifices 310 of the other heat sources 300'. Such positioning may avoid competition for oxygen to support com-

busation when it is desirable to energize each of the heat sources 300', 300" at the maximum thermal output.

[0089] The pan 200 may also include one or more upward extending ridges 220 (e.g., 220', 220") that separate the upper level 205 from the lower level 210. As is seen in FIGS. 2A-2E, the pan 200 may include two upward extending ridges 220', 220", where the upward extending ridge 220' separates the first upper level portion 205' from the lower level 210, and the upward extending ridge 220" separates the second upper level portion 205" from the lower level 210. The upward extending ridges 200 may prevent fluid spilled in the upper level 205 from flowing into the lower level 210 and the heat source 300". The upward extending ridges 200 may also facilitate cleaning of the upper level 205 and lower level 210 with cleaning fluids (e.g., soap or detergent, and water), as this fluid can be retained in each level 205, 210 as it is cleaned or soaked separately from other levels 205, 210. The upward extending ridges 220 may each include a top-most portion that is positioned vertically higher than the upper level 205, so as to prevent fluid from flowing into lower level 210. This difference in vertical height between the top-most portion of the upward extending ridge 220 and the upper level 205 is illustrated as arrow 215. The difference in vertical height may be any amount. For example, the difference in vertical height may be (or may be about) 0.1 inches, 0.2 inches, 0.3 inches, 0.4 inches, 0.5 inches, 1 inch, 1.5 inches, a range of (or a range of about) 0.1-1 inch, 0.2-1 inch, 0.4-1 inch, or any other range greater than 0.1 inches.

[0090] The pan 200 may also include one or more raised rims 230 that each pass through a heat source hole 211 and surround a portion of a heat source 300', 300" (e.g., surround a gas flow tube 320 of the heat source 300). The gap or margin between each heat source 300 (or a portion of the heat source 300) and the inner periphery of each heat source hole 211 may be sealed with a gasket or compression type fitting to prevent the flow of liquid into the cavity 120 below the pan 200.

[0091] FIGS. 3A-3C illustrate various views of a portion of an example cooking range 1000 having another example pan 200. The cooking range 1000 and pan 200 of FIGS. 3A-3C may be substantially similar to the cooking range 1000 and pan 200 of FIGS. 1A-2E. However, the pan 200 of FIGS. 3A-3C may include only a single upper level 205 (as opposed to an upper level 205 having multiple upper level portions 205', 205"), and the upper level 205 may surround the lower level 210. Additionally, the pan 200 of FIGS. 3A-3C may include a lower level 210 having a different shape than that in FIGS. 1A-2E. Also, while not illustrated in FIGS. 3A-3C, the pan 200 of FIGS. 3A-3C may include one or more upward extending ridges 220 and/or raised rims 230.

[0092] FIGS. 4A-4C illustrate various views of a portion of another example cooking range 1000 having a further example pan 200. The cooking range 1000 and pan 200 of FIGS. 4A-4C may be substantially similar to the cooking range 1000 and pan 200 of FIGS. 1A-2E. However, the pan 200 of FIGS. 4A-4C may include only a single upper level 205 (as opposed to an upper level 205 having multiple upper level portions 205', 205"), and the upper level 205 may surround the lower level 210. Additionally, the pan 200 of FIGS. 4A-4C may include a lower level 210 having a different shape than that in FIGS. 1A-2E. Also, while not

illustrated in FIGS. 4A-4C, the pan 200 of FIGS. 4A-4C may include one or more upward extending ridges 220 and/or raised rims 230.

[0093] FIGS. 5A-5C illustrate various views of a portion of another example cooking range 1000 having a further example pan 200. The cooking range 1000 and pan 200 of FIGS. 5A-5C may be substantially similar to the cooking range 1000 and pan 200 of FIGS. 1A-2E. However, the pan 200 of FIGS. 5A-5C may include only a single upper level 205 (as opposed to an upper level 205 having multiple upper level portions 205', 205''), and the upper level 205 may surround the lower level 210. Additionally, the pan 200 of FIGS. 5A-5C may include a lower level 210 having a different shape than that in FIGS. 1A-2E. Also, while not illustrated in FIGS. 5A-5C, the pan 200 of FIGS. 5A-5C may include one or more upward extending ridges 220 and/or raised rims 230.

[0094] FIGS. 6A-6C illustrate various views of a portion of another example cooking range 1000 having a further example pan 200. The cooking range 1000 and pan 200 of FIGS. 6A-6C may be substantially similar to the cooking range 1000 and pan 200 of FIGS. 1A-2E. However, the pan 200 of FIGS. 6A-6C may include only a single upper level 205 (as opposed to an upper level 205 having multiple upper level portions 205', 205''), and the upper level 205 may surround the lower level 210. Additionally, the pan 200 of FIGS. 6A-6C may include a lower level 210 having a different shape than that in FIGS. 1A-2E. Also, while not illustrated in FIGS. 6A-6C, the pan 200 of FIGS. 6A-6C may include one or more upward extending ridges 220 and/or raised rims 230.

[0095] FIGS. 7A-7C illustrate various views of a portion of another example cooking range 1000 having a further example pan 200. The cooking range 1000 and pan 200 of FIGS. 7A-7C may be substantially similar to the cooking range 1000 and pan 200 of FIGS. 1A-2E. However, the pan 200 of FIGS. 7A-7C may include only a single upper level 205 (as opposed to an upper level 205 having multiple upper level portions 205', 205''), and the upper level 205 may surround the lower level 210. Additionally, the pan 200 of FIGS. 7A-7C may include a lower level 210 having a different shape than that in FIGS. 1A-2E. Also, while not illustrated in FIGS. 7A-7C, the pan 200 of FIGS. 7A-7C may include one or more upward extending ridges 220 and/or raised rims 230.

[0096] FIGS. 8A-8C illustrate various views of a portion of another example cooking range 1000 having a further example pan 200. The cooking range 1000 and pan 200 of FIGS. 8A-8C may be substantially similar to the cooking range 1000 and pan 200 of FIGS. 1A-2E. However, the lower level 210 (and heat source 300'', such as a heat source 300'' having a high maximum thermal output) may be positioned in the front right corner of the pan 200 (as opposed to being positioned in the center, as is illustrated in FIGS. 1A-2E). Furthermore, while FIGS. 8A-8C illustrate the lower level 210 (and heat source 300'') being positioned in the front right corner of the pan 200, the lower level 210 (and heat source 300'') may be positioned in back right corner of the pan 200, the front left corner of the pan 200, the front right corner of the pan 200, or any other location on the pan 200. Additionally, the pan 200 may include multiple separate lower levels 210, such as a first lower level 210 (and heat source 300'') positioned in the front right

corner of the pan 200 and a second lower level 210 (and heat source 300'') positioned in the front left corner of the pan 200.

[0097] Also, the pan 200 of FIGS. 8A-8C may include only a single upper level 205 (as opposed to an upper level 205 having multiple upper level portions 205', 205''), and the upper level 205 may surround the lower level 210. Additionally, the pan 200 of FIGS. 8A-8C may include a lower level 210 having a different shape than that in FIGS. 1A-2E. Also, while not illustrated in FIGS. 8A-8C, the pan 200 of FIGS. 8A-8C may include one or more upward extending ridges 220 and/or raised rims 230.

[0098] Modifications, additions, and/or substitutions may be made to the cooking range 1000, the components of the cooking range 1000, the functions of the cooking range 1000, the pan 200, the components of the pan 200, and/or the functions of the pan 200 without departing from the scope of the specification. For example, the cooking range 1000 and/or the pan 200 may have any dimensions, may include additional components, and/or may not include one or more of the components discussed above. Furthermore, it should be appreciated that the heat sources 300', 300'' may have multiple concentric manifolds or singular circular manifolds, may have any shape manifold, and may have any placement or combination of heat source 300', 300''. As such, the heat sources 300', 300'' are not limited to the size, shape, placement, or combination that may be inferred from the drawings and description of the various examples.

[0099] This specification has been written with reference to various non-limiting and non-exhaustive embodiments or examples. However, it will be recognized by persons having ordinary skill in the art that various substitutions, modifications, or combinations of any of the disclosed embodiments or examples (or portions thereof) may be made within the scope of this specification. Thus, it is contemplated and understood that this specification supports additional embodiments or examples not expressly set forth in this specification. Such embodiments or examples may be obtained, for example, by combining, modifying, reorganizing, or removing any of the disclosed components, elements, features, aspects, characteristics, limitations, and the like, of the various non-limiting and non-exhaustive embodiments or examples described in this specification.

What is claimed is:

1. A cooking range, comprising
 - a. a frame having an upper rim surrounding an upper opening of a cavity;
 - b. a pan coupled to the frame, the pan extending downward into the upper opening of the cavity, the pan having an upper level and a lower level, the lower level being positioned vertically lower than the upper level, the pan further having one or more upward extending ridges that separate the upper level from the lower level, wherein the top-most portion of each of the ridges is positioned vertically higher than the upper level; and
 - c. a plurality of heat sources, wherein a first heat source of the plurality of heat sources is positioned within the lower level, wherein a second heat source of the plurality of heat sources is positioned within the upper level, wherein a third heat source of the plurality of heat sources is positioned within the upper level, wherein a fourth heat source of the plurality of heat sources is positioned within the upper level, wherein the first heat

- source is positioned vertically lower than each of the second, third, and fourth heat sources, wherein the first heat source is configured to provide a higher maximum thermal output than each of the second, third, and fourth heat sources, wherein the maximum thermal output of the first heat source is at least about 26,000 British thermal units (BTUs), and wherein the maximum thermal output of each of the second, third, and fourth heat sources is at least about 18,000 BTUs.
2. A cooking range, comprising
 - a. a frame having an upper rim surrounding an upper opening of a cavity;
 - b. a pan coupled to the frame, the pan extending downward into the upper opening of the cavity, the pan having an upper level and a lower level, the lower level being positioned vertically lower than the upper level; and
 - c. a plurality of heat sources, wherein a first heat source of the plurality of heat sources is positioned within the lower level, wherein a second heat source of the plurality of heat sources is positioned within the upper level, wherein the first heat source is positioned vertically lower than the second heat source, wherein the first heat source is configured to provide a higher maximum thermal output than the second heat source.
 3. The cooking range of claim 2, wherein:

the first and second heat sources are gas burners; and gas outlet orifices of the first heat source are positioned vertically lower than gas outlet orifices of the second heat source.
 4. The cooking range of claim 2, wherein:

the upper level comprises two upper level portions; and the two upper level portions are positioned on opposing sides of the lower level.
 5. The cooking range of claim 2, wherein the upper level surrounds the lower level.
 6. The cooking range of claim 2, wherein the pan further comprises one or more upward extending ridges that separate the upper level from the lower level, wherein the top-most portion of each of the ridges is positioned vertically higher than the upper level.
 7. The cooking range of claim 2, wherein the maximum thermal output of the first heat source is at least about 30,000 British thermal units (BTUs).
 8. The cooking range of claim 2, wherein the maximum thermal output of the first heat source is at least about 28,000 British thermal units (BTUs).
 9. The cooking range of claim 2, wherein the maximum thermal output of the first heat source is greater than the maximum thermal output of the second heat source by at least about 5,000 British thermal units (BTUs)-7,000 BTUs.
 10. The cooking range of claim 2, wherein the maximum thermal output of the second heat source is at least about 18,000 British thermal units (BTUs).
 11. The cooking range of claim 2, wherein:

at least two additional heat sources of the plurality of heat sources are positioned within the upper level; and the first heat source is further configured to provide a higher maximum thermal output than each of the at least two additional heat sources.
 12. The cooking range of claim 11, wherein the second heat source and the at least two additional heat sources surround the first heat source.
 13. The cooking range of claim 2, wherein the top-most portion of the first heat source is positioned vertically lower than the upper level.
 14. A cooking range pan, comprising:
 - an upper flange configured to be coupled to a frame of a cooking range;
 - an upper level coupled to the upper flange and comprising one or more heat source holes that extend through a depth of the upper level; and
 - a lower level coupled to the upper level and comprising one or more additional heat source holes that extend through a depth of the lower level, wherein the lower level is positioned vertically lower than the upper level, wherein each of the heat source holes and the additional heat source holes are configured to surround a portion of a respective heat source of the cooking range.
 15. The cooking range pan of claim 14, wherein:

the upper level comprises two upper level portions; and the two upper level portions are positioned on opposing sides of the lower level.
 16. The cooking range pan of claim 14, wherein the upper level surrounds the lower level.
 17. The cooking range pan of claim 14, wherein the pan further comprises one or more upward extending ridges that separate the upper level from the lower level, wherein the top-most portion of each of the ridges is positioned vertically higher than the upper level.
 18. The cooking range pan of claim 14, wherein the one or more additional heat source holes of the lower level comprises a single additional heat source hole.
 19. The cooking range pan of claim 14, wherein the one or more heat source holes of the upper level comprise at least three heat source holes that surround the one or more additional heat source holes of the lower level.
 20. A cooking range comprising:
 - a. a frame;
 - b. a cooking vessel support grate coupled to the frame to provide an upper surface to support a plurality of cooking vessels;
 - c. a pan coupled to one of the cooking vessel support grate and the frame to have an upper surface disposed below the cooking vessel support grate and projected laterally under the area of the cooking vessel support grate, the pan comprising:
 - i. an upper level comprising one or more heat source holes that extend through a depth of the upper level; and
 - ii. a lower level coupled to the upper level and comprising one or more additional heat source holes that extend through a depth of the lower level, wherein the lower level is positioned vertically lower than the upper level, wherein each of the heat source holes and the additional heat source holes are configured to accommodate a conduit to a respective heat source of the cooking range;
 - d. a plurality of heat sources, each heat source having a burner with a plurality of orifices for providing a flame, wherein a first heat source of the plurality of heat sources is positioned within the lower level, wherein a second heat source of the plurality of heat sources is positioned within the upper level;
 - e. a source of fuel in fluid communication with each of the burners of the respective heat sources via the associated conduit thereof, in which each of the burners is con-

figured with a control of the fuel to the heat source to provide a flame having a maximum upper height when the control is providing a maximum quantity of fuel to each burner to provide a maximum thermal output of the burner; and

f. wherein the first heat source is configured to provide a higher maximum thermal output than the second heat source.

21. The cooking range of claim **20**, wherein the first heat source is configured to have at least one of the orifices of the burner and the flame maximum upper height disposed more distal from the upper surface of the cooking vessel support grate than a corresponding one of the orifices of the burner and flame maximum upper height of the second heat source is distal from the upper surface of the food support grate.

22. The cooking range of claim **20**, wherein the maximum thermal output of the first heat source is at least about 25,000 British thermal units (BTUs).

23. The cooking range of claim **20**, wherein the maximum thermal output of the second heat source is at least about 18,000 British thermal units (BTUs), and wherein the maxi-

imum thermal output of the first heat source is greater than the maximum thermal output of the second heat source by at least about 5,000 BTUs.

24. The cooking range of claim **20**, further comprising a third, a fourth, and a fifth heat source of the plurality of heat sources, wherein each of the second, third, fourth, and fifth heat sources surround the first heat source.

25. The cooking range of claim **24**, wherein the third, fourth, and fifth heat sources are each positioned within the upper level.

26. The cooking range of claim **24**, wherein the maximum thermal output of at least one of the third and fourth heat sources is at least about 18,000 British thermal units (BTUs).

27. The cooking range of claim **25**, wherein the maximum thermal output of each of the third and fourth heat sources is at least about 18,000 British thermal units (BTUs).

28. The cooking range of claim **25**, wherein the maximum thermal output of each of the second, third, and fourth heat sources is at least about 23,000 British thermal units (BTUs), and the maximum thermal output of the first heat source is at least about 30,000 BTUs.

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