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(54) **VENT TRIM ASSEMBLY FOR A COOKING APPLIANCE**

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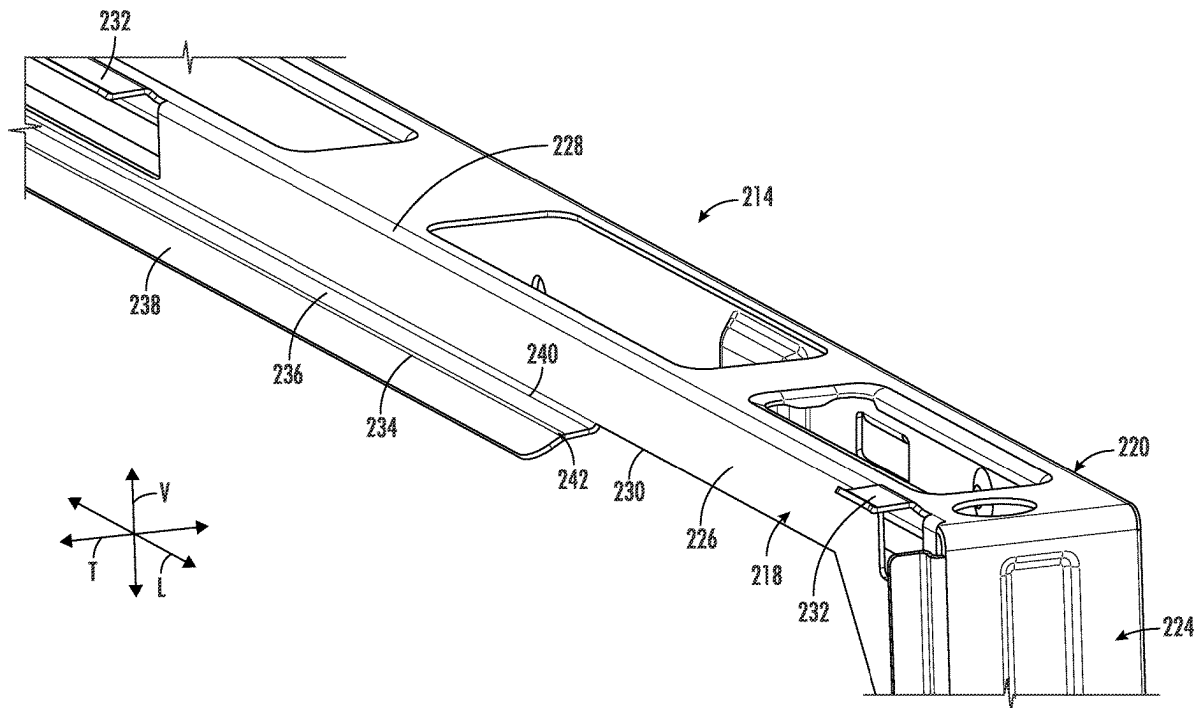
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(57) **ABSTRACT**

A cooking appliance may define a vertical direction, a lateral direction, and a transverse direction. The cooking appliance may include a cabinet. The cooking appliance may further include a cooktop provided above the cabinet. The cooking appliance may also include a cooktop extending between a front edge and a rear edge along the transverse direction. The rear edge may include a rear lip. The cooking appliance may also include a vent trim assembly in fluid communication with the cabinet. The vent trim assembly may include a lower vent trim positioned at the rear edge of the cooktop. The lower vent trim may include a support ledge positioned below the rear edge. The rear lip may be interfaced with the support ledge.



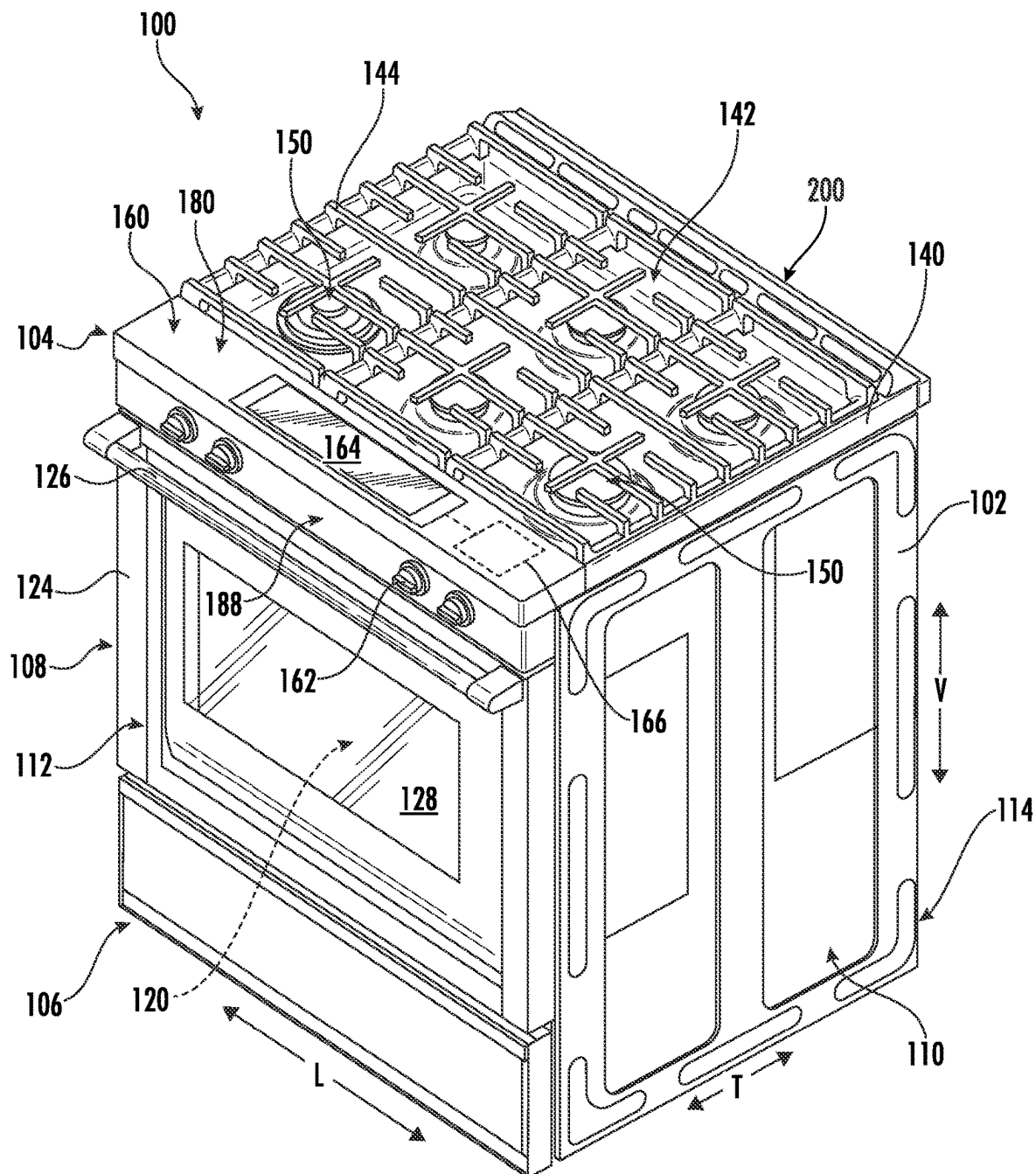


FIG. 1

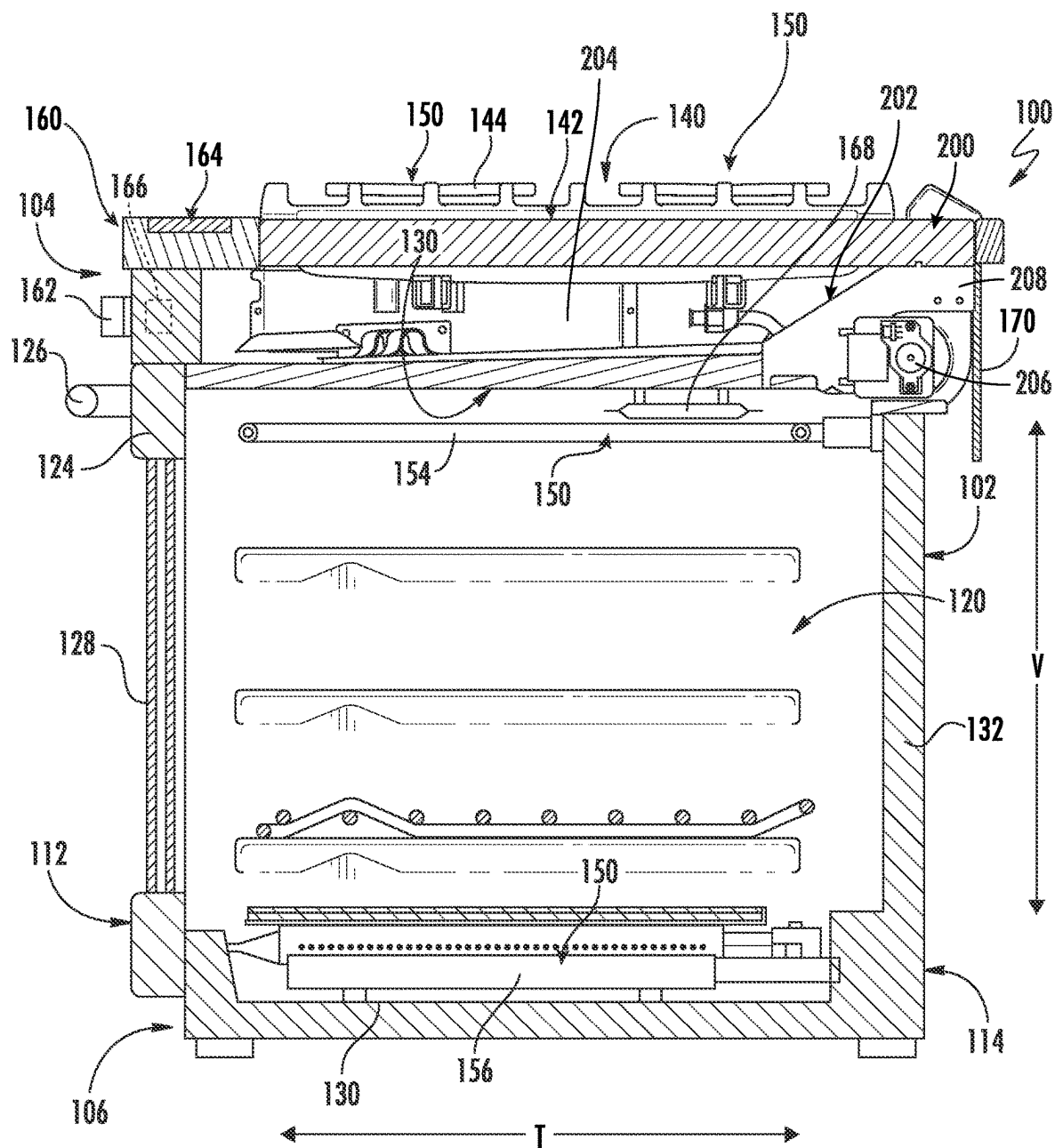


FIG. 2

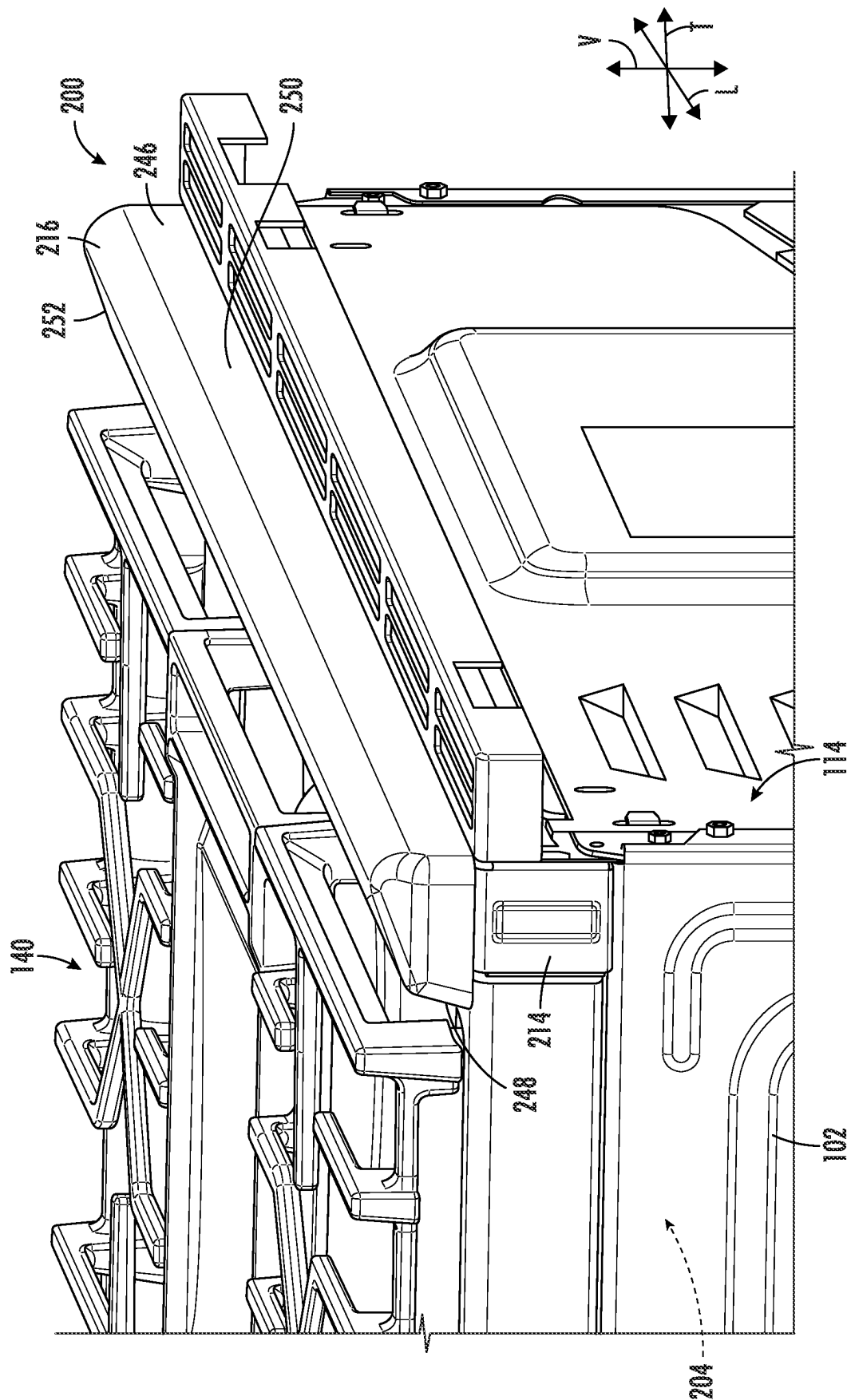


FIG. 3

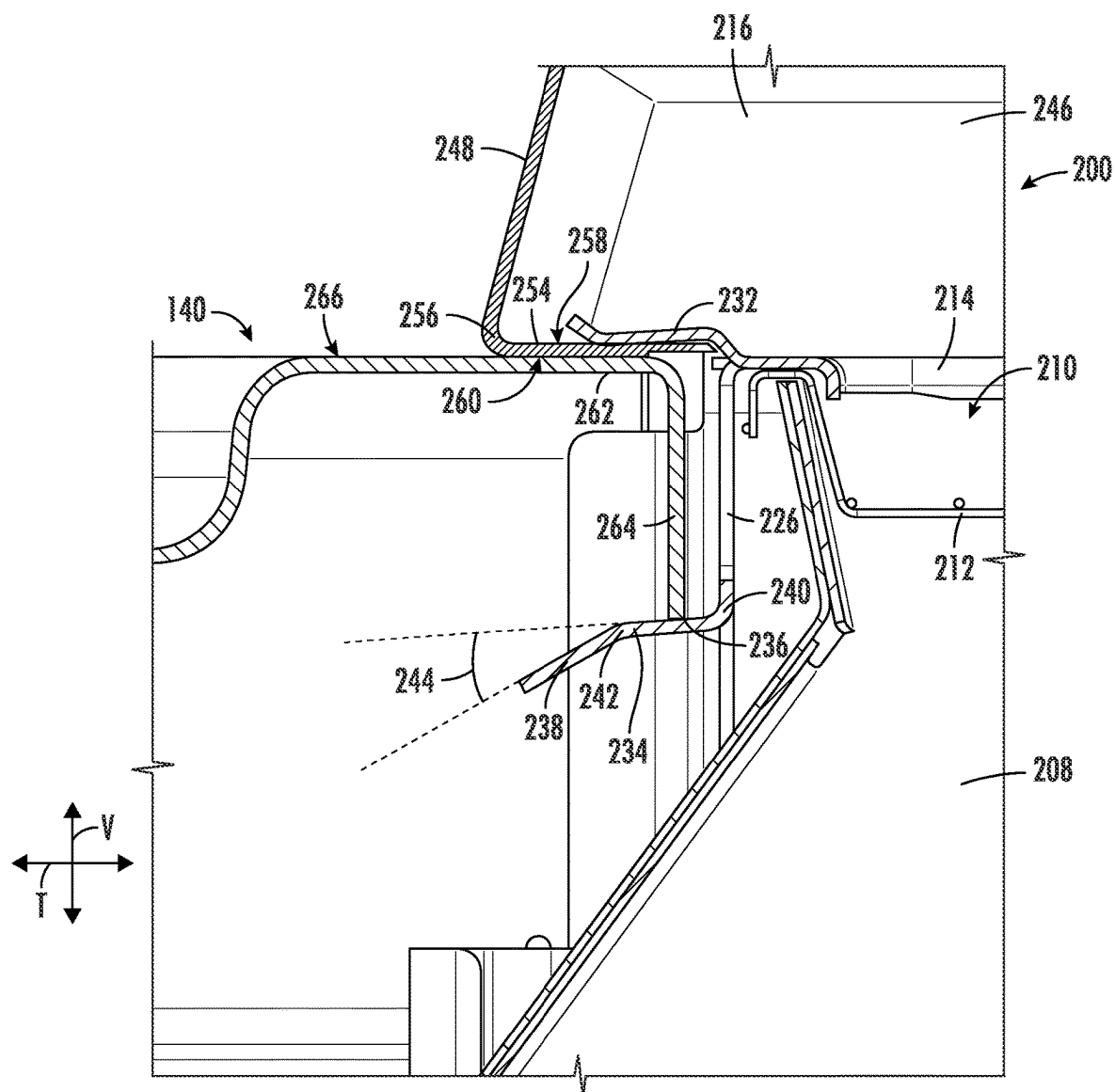
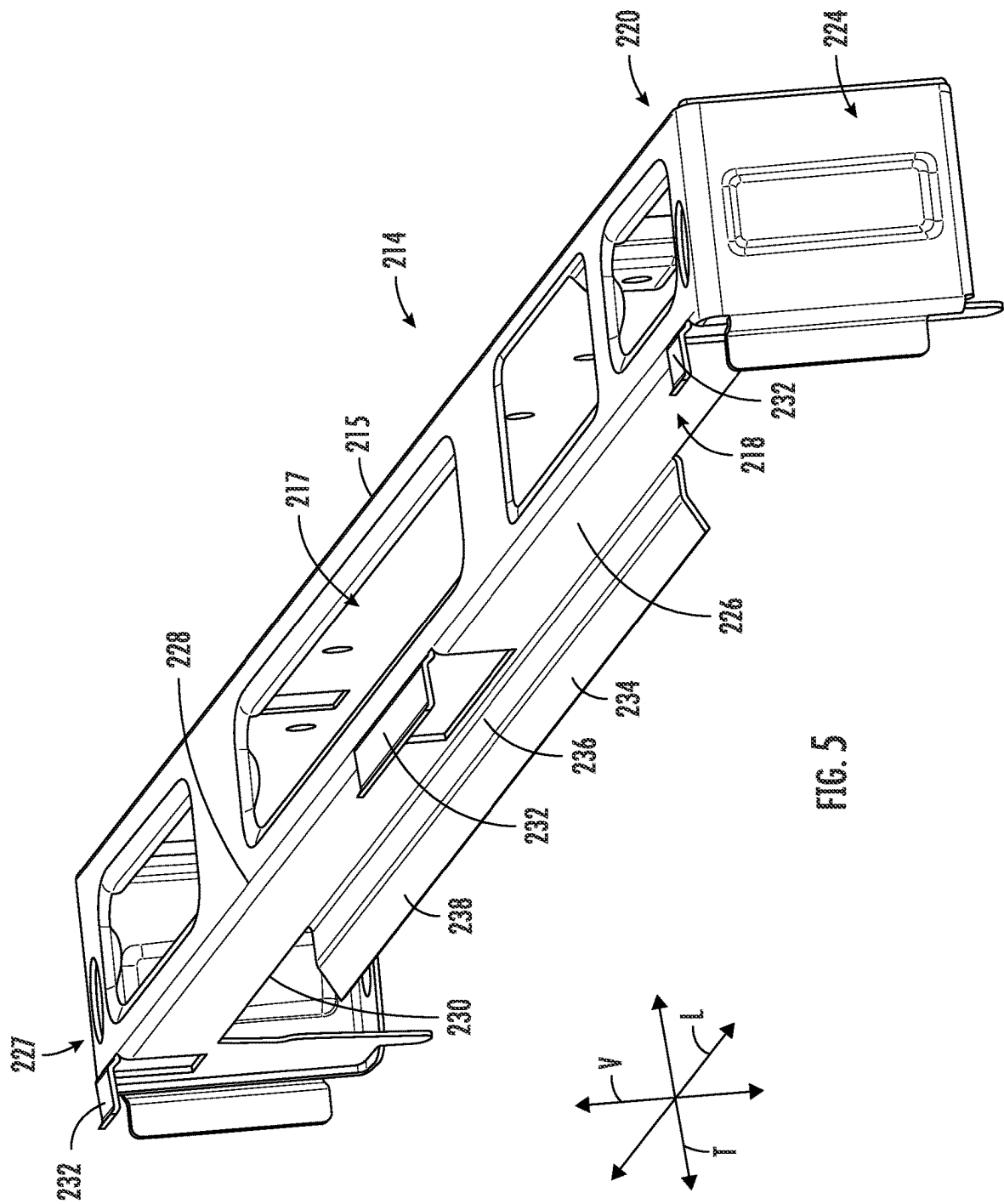
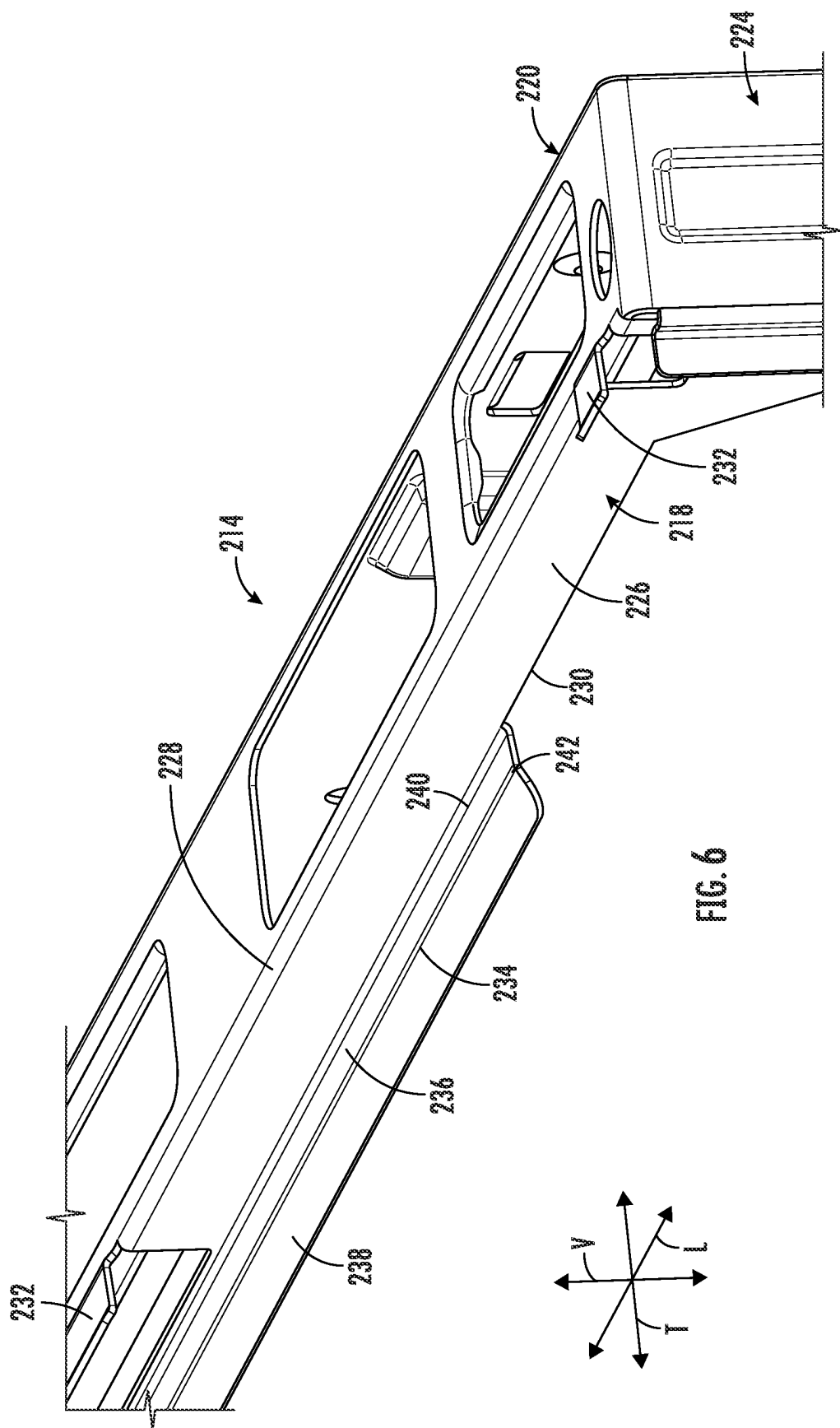


FIG. 4





VENT TRIM ASSEMBLY FOR A COOKING APPLIANCE

FIELD OF THE DISCLOSURE

[0001] The present subject matter relates generally to a cooking appliance, and more particularly to support features for a cooking appliance.

BACKGROUND OF THE DISCLOSURE

[0002] Conventional residential and commercial oven appliances generally include a cabinet that includes a cooking chamber for receipt of food items for cooking. Multiple heating elements are positioned within the cooking chamber to provide heat to food items located therein. The heating elements can include, for example, radiant heating elements, such as a bake heating assembly positioned at a bottom of the cooking chamber, or a separate broiler heating assembly positioned at a top of the cooking chamber. In addition, conventional oven appliances include a cooktop positioned on a top of the appliance that includes one or more heating elements, such as electric heaters, gas burners, or induction heating elements.

[0003] Often, during production of the oven appliance, the cooktops undergo an enameling process to strengthen and protect the cooktop. However, the enameling process applied to the cooktop may result in one or more drawbacks for the oven appliance. For example, due to the thermal load that the cooktop experiences during the enameling process, surfaces of the cooktop can experience a level of deformation. For instance, the cooktop can be “bowed” across one or more edges due the enameling process. The bowing of one or more edges of the cooktop may result in undesirable gaps or voids between the cooktop and one or more adjacent components of the oven appliance.

[0004] Accordingly, an oven appliance that obviates one or more of the above-mentioned drawbacks would be useful.

BRIEF DESCRIPTION OF THE DISCLOSURE

[0005] Aspects and advantages of the invention will be set forth in part in the following description, or may be obvious from the description, or may be learned through practice of the invention.

[0006] In one exemplary aspect of the present disclosure, a cooking appliance is provided. The cooking appliance may define a vertical direction, a lateral direction, and a transverse direction. The cooking appliance may include a cabinet. The cooking appliance may further include a cooktop provided above the cabinet. The cooking appliance may also include a cooktop extending between a front edge and a rear edge along the transverse direction. The rear edge may include a rear lip. The cooking appliance may also include a vent trim assembly in fluid communication with the cabinet. The vent trim assembly may include a lower vent trim positioned at the rear edge of the cooktop. The lower vent trim may include a support ledge positioned below the rear edge. The rear lip may be interfaced with the support ledge.

[0007] In another exemplary aspect of the present disclosure, a vent trim assembly for a cooking appliance is provided. The vent trim assembly may define a vertical direction, a lateral direction, and a transverse direction. The vent trim assembly may include a lower vent trim. The lower vent trim may further define a first side, a second side, a front

side, and a rear side. The first side and the second side are spaced apart along the lateral direction. The front side and the rear side are spaced apart along the transverse direction. The lower vent trim may include a front face positioned at the front side and a support ledge extending outward from the front face.

[0008] These and other features, aspects and advantages of the present invention 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 invention and, together with the description, serve to explain the principles of the invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0009] A full and enabling disclosure of the present invention, including the best mode thereof, directed to one of ordinary skill in the art, is set forth in the specification, which makes reference to the appended figures.

[0010] FIG. 1 provides a front perspective view of a cooking appliance according to one or more exemplary embodiments of the present subject matter.

[0011] FIG. 2 provides a side cross-sectional view of the exemplary cooking appliance of FIG. 1 according to one or more exemplary embodiments of the present subject matter.

[0012] FIG. 3 provides a back perspective view of a portion of the exemplary cooking appliance of FIG. 1 according to one or more exemplary embodiments of the present subject matter.

[0013] FIG. 4 provides a side cross-sectional view of a portion of the exemplary cooking appliance of FIG. 1 according to one or more exemplary embodiments of the present subject matter.

[0014] FIG. 5 provides a perspective view of a lower vent trim according to one or more exemplary embodiments of the present subject matter.

[0015] FIG. 6 provides a close-up perspective view of a portion of the lower vent trim of FIG. 4 according to one or more exemplary embodiments of the present subject matter.

[0016] Repeat use of reference characters in the present specification and drawings is intended to represent the same or analogous features or elements of the present invention.

DETAILED DESCRIPTION

[0017] 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 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.

[0018] As used herein, the terms “first,” “second,” and “third” may be used interchangeably to distinguish one component from another and are not intended to signify location or importance of the individual components. The terms “includes” and “including” are intended to be inclusive in a manner similar to the term “comprising.” Similarly,

the term “or” is generally intended to be inclusive (i.e., “A or B” is intended to mean “A or B or both”). In addition, here and throughout the specification and claims, range limitations may be combined or interchanged. Such ranges are identified and include all the sub-ranges contained therein unless context or language indicates otherwise. For example, all ranges disclosed herein are inclusive of the endpoints, and the endpoints are independently combinable with each other. The singular forms “a,” “an,” and “the” include plural references unless the context clearly dictates otherwise.

[0019] Approximating language, as used herein throughout the specification and claims, may be applied to modify any quantitative representation that could permissibly vary without resulting in a change in the basic function to which it is related. Accordingly, a value modified by a term or terms, such as “generally,” “about,” “approximately,” and “substantially,” are not to be limited to the precise value specified. In at least some instances, the approximating language may correspond to the precision of an instrument for measuring the value, or the precision of the methods or machines for constructing or manufacturing the components or systems. For example, the approximating language may refer to being within a ten percent margin, e.g., including values within ten percent greater or less than the stated value. In this regard, for example, when used in the context of an angle or direction, such terms include within ten degrees greater or less than the stated angle or direction, e.g., “generally vertical” includes forming an angle of up to ten degrees in any direction, e.g., clockwise or counterclockwise, with the vertical direction V.

[0020] The word “exemplary” is used herein to mean “serving as an example, instance, or illustration.” In addition, references to “an embodiment” or “one embodiment” does not necessarily refer to the same embodiment, although it may. Any implementation described herein as “exemplary” or “an embodiment” is not necessarily to be construed as preferred or advantageous over other implementations.

[0021] Exemplary aspects of the present subject matter advantageously provide a vent trim assembly for a cooking appliance that includes a support ledge. The exemplary support ledge advantageously locates (e.g., during assembly) and supports (e.g., once assembled) a rear edge of a cooktop of the cooking appliance. For instance, the support ledge may advantageously include a ramp portion and a support portion. The ramp portion may locate the rear edge of the cooktop to the support portion. For instance, the ramp portion may guide or direct a rear edge of the cooktop to the support portion. The support portion may be a portion of the support ledge that may support, for instance, the weight of, the rear edge of the cooktop. Thus, the exemplary support ledge advantageously prevent or mitigate sagging of the cooktop along the rear edge of the cooktop. Furthermore, by preventing or mitigating sagging of the cooktop along the rear edge, undesirable gaps or voids between the cooktop and adjacent vent trim pieces may be reduced or mitigated.

[0022] FIG. 1 provides a front, perspective view of a cooking appliance 100 as may be employed with the present subject matter. Cooking appliance 100 generally defines a vertical direction V, a lateral direction L, and a transverse direction T, each of which is mutually perpendicular, such that an orthogonal coordinate system is generally defined. As illustrated, cooking appliance 100 includes an insulated cabinet 102. Cabinet 102 of cooking appliance 100 extends between a top 104 and a bottom 106 along the vertical

direction V, between a first side 108 (left side when viewed from front) and a second side 110 (right side when viewed from front) along the lateral direction L, and between a front 112 and a rear 114 along the transverse direction T.

[0023] Within cabinet 102 is a single cooking chamber 120 which is configured for the receipt of one or more food items to be cooked. However, it should be appreciated that cooking appliance 100 is provided by way of example only, and aspects of the present subject matter may be used in any suitable cooking appliance, such as a double oven range appliance. Thus, the example embodiment shown in FIG. 1 is not intended to limit the present subject matter to any particular cooking chamber configuration or arrangement. Indeed, aspects of the present subject matter may be applied to cooktops for any suitable appliance.

[0024] Cooking appliance 100 includes a door 124 rotatably attached to cabinet 102 in order to permit selective access to cooking chamber 120. Handle 126 is mounted to door 124 to assist a user with opening and closing door 124 in order to access cooking chamber 120. As an example, a user can pull on handle 126 mounted to door 124 to open or close door 124 and access cooking chamber 120. One or more transparent viewing windows 128 (FIG. 1) may be defined within door 124 to provide for viewing the contents of cooking chamber 120 when door 124 is closed and also assist with insulating cooking chamber 120.

[0025] In general, cooking chamber 120 is defined by a plurality of chamber walls 130 (FIG. 2). Specifically, cooking chamber 120 may be defined by a top wall, a rear wall, a bottom wall, and two sidewalls. These chamber walls 130 may be joined together to define an opening through which a user may selectively access cooking chamber 120 by opening door 124. In order to insulate cooking chamber 120, cooking appliance 100 includes an insulating gap defined between the chamber walls 130 and cabinet 102. According to an exemplary embodiment, the insulation gap is filled with an insulating material 132, such as insulating foam or fiberglass, for insulating cooking chamber 120.

[0026] Cooking appliance 100 also includes a cooktop 140. Cooktop 140 is positioned at or adjacent top 104 of cabinet 102 such that it is positioned above cooking chamber 120. Specifically, cooktop 140 includes a top panel 142 positioned proximate top 104 of cabinet 102. By way of example, top panel 142 may be constructed of glass, ceramics, enameled steel, and combinations thereof. One or more grates 144 may be supported on a top surface of top panel 142 for supporting cooking utensils, such as pots or pans, during a cooking process.

[0027] Cooking appliance 100 may further include one or more heating elements (identified generally by reference numeral 150) for selectively heating cooking utensils positioned on grates 144 or food items positioned within cooking chamber 120. For example, referring to FIG. 1, heating elements 150 may be gas burners 150. Specifically, a plurality of gas burners 150 are mounted within or on top of top panel 142 underneath grates 144 that supports cooking utensils over the gas burners 150 while gas burners 150 provide thermal energy to cooking utensils positioned thereon, e.g., to heat food or cooking liquids (e.g., oil, water, etc.). Gas burners 150 can be configured in various sizes so as to provide e.g., for the receipt of cooking utensils (e.g., pots, pans, etc.) of various sizes and configurations and to provide different heat inputs for such cooking utensils.

According to alternative embodiments, cooking appliance 100 may have other cooktop configurations or burner elements.

[0028] In addition, heating elements 150 may be positioned within or may otherwise be in thermal communication with cooking chamber 120 for regulating the temperature within cooking chamber 120. Specifically, an upper gas heating element 154 (also referred to as a broil heating element or gas burner) may be positioned in cabinet 102, e.g., at a top portion of cooking chamber 120, and a lower gas heating element 156 (also referred to as a bake heating element or gas burner) may be positioned at a bottom portion of cooking chamber 120. Upper gas heating element 154 and lower gas heating element 156 may be used independently or simultaneously to heat cooking chamber 120, perform a baking or broil operation, perform a cleaning cycle, etc. The size and heat output of gas heating elements 154, 156 can be selected based on the, for example, the size of cooking appliance 100 or the desired heat output. Cooking appliance 100 may include any other suitable number, type, and configuration of heating elements 150 within cabinet 102 or on cooktop 140. For example, cooking appliance 100 may further include electric heating elements, induction heating elements, or any other suitable heat generating device.

[0029] A control panel assembly 160 is located within convenient reach of a user of the cooking appliance 100. For this example embodiment, control panel assembly 160 is positioned at a top 104 and front 112 of cabinet 102, e.g., above door 124 along the vertical direction V and forward of cooktop 140 along the transverse direction T. Control panel assembly 160 includes knobs 162 that are each associated with one of heating elements 150. In this manner, knobs 162 allow the user to activate each heating element 150 and determine the amount of heat input provided by each heating element 150 for cooking food items within cooking chamber 120 or on cooktop 140. Although shown with knobs 162, it should be understood that knobs 162 and the configuration of cooking appliance 100 shown in FIG. 1 is provided by way of example only. More specifically, control panel assembly 160 may include various input components, such as one or more of a variety of touch-type controls, electrical, mechanical or electro-mechanical input devices including rotary dials, push buttons, and touch pads. Control panel assembly 160 may also be provided with one or more graphical display devices or display components, such as a digital or analog display device designed to provide operational feedback or other information to the user such as e.g., whether a particular heating element 150 is activated or the rate at which the heating element 150 is set. Indeed, according to the illustrated embodiment, control panel assembly 160 includes a display assembly 164, such as a liquid crystal display with an interactive display and interface.

[0030] Generally, cooking appliance 100 may include a controller 166 in operative communication with control panel assembly 160. Control panel assembly 160 of cooking appliance 100 may be in communication with controller 166 via, for example, one or more signal lines or shared communication busses, and signals generated in controller 166 operate cooking appliance 100 in response to user input via user input devices, e.g., control knobs 162 or display assembly 164. Input/Output (“I/O”) signals may be routed between controller 166 and various operational components of cooking appliance 100 such that operation of cooking

appliance 100 can be regulated by controller 166. In addition, controller 166 may also be in communication with one or more sensors, such as temperature sensor 168 (FIG. 2), which may be used to measure temperature inside cooking chamber 120 and provide such measurements to the controller 166. Although temperature sensor 168 is illustrated at a top and rear of cooking chamber 120, it should be appreciated that other sensor types, positions, and configurations may be used according to alternative embodiments.

[0031] Controller 166 is a “processing device” or “controller” and may be embodied as described herein. Controller 166 may include a memory and one or more microprocessors, microcontrollers, application-specific integrated circuits (ASICs), CPUs or the like, such as general or special purpose microprocessors operable to execute programming instructions or micro-control code associated with operation of cooking appliance 100, and controller 166 is not restricted necessarily to a single element. The memory may represent random access memory such as DRAM, or read only memory such as ROM, electrically erasable, programmable read only memory (EEPROM), or FLASH. In one embodiment, the processor executes programming instructions stored in memory. The memory may be a separate component from the processor or may be included onboard within the processor. Alternatively, controller 166 may be constructed without using a microprocessor, e.g., using a combination of discrete analog or digital logic circuitry (such as switches, amplifiers, integrators, comparators, flip-flops, AND gates, and the like) to perform control functionality instead of relying upon software.

[0032] Although aspects of the present subject matter are described herein in the context of a single oven appliance, it should be appreciated that cooking appliance 100 is provided by way of example only. Other oven or range appliances having different configurations, different appearances, or different features may also be utilized with the present subject matter, e.g., double ovens, standalone cooktops, etc.

[0033] Referring now to FIGS. 3 through 6, a vent trim assembly 200, and more particularly, components thereof, of the cooking appliance 100 are provided. Generally, the vent trim assembly 200 is in fluid communication with the cooking chamber 120. The vent trim assembly 200 may be utilized as an exhaust vent, for instance, for a cooling system 202 of the cooking appliance. Cooling system 202 may include an inlet duct 204. Inlet duct 204 may be provided within cabinet 102. For instance, inlet duct 204 may be located between cooking chamber 120 and cooktop 140 (e.g., above cooking chamber 120 and beneath cooktop 140). Inlet duct 204 may thus extend from front 112 (e.g., adjacent control panel assembly 160) approximately along or parallel to the transverse direction T to rear 114 of cabinet 102. Inlet duct 204 may form an air passage therein, through which air is selectively motivated to provide a cooling effect to one or more components of cooking appliance 100. According to at least some embodiments, inlet duct 204 includes an air inlet provided at a front thereof and an air outlet provided at a rear thereof.

[0034] Cooling system 202 may include a cooling fan 206. For example, cooling fan 206 may urge a flow of air through inlet duct 204 and out of exhaust duct (described below) to the vent trim assembly 200 and then to an ambient environment. In some embodiments, the cooling fan 206 includes or is provided as a tangential fan positioned within inlet duct 204. Additionally or alternatively, one or more

cooling fan may be positioned at any other suitable location and may include or be provided as any other suitable fan type, such as a centrifugal fan, etc. In some other additional or alternative embodiments, the cooling fan 206 is a variable speed fan such that it may rotate at different rotational speeds, thereby generating different air flow rates (e.g., as directed by controller 166). In this manner, the amount of air drawn over control panel assembly 160 may be continuously and precisely regulated. Moreover, by pulsing the operation of cooling fan 206 or throttling cooling fan 206 between different rotational speeds, the flow of air drawn into inlet duct 204 may have a different flow velocity or may generate a different flow pattern within inlet duct 204. Thus, by pulsating the variable speed fan or otherwise varying its speed, the flow of air may be randomized, thereby eliminating stagnant regions within inlet duct 204 and better circulating the flow of air to provide a more even cooling effect.

[0035] Furthermore, cooling system 202 may include an exhaust duct 208. The exhaust duct 208 may be provided above cooling fan 206 along the vertical direction V. Exhaust duct 208 may be selectively coupled to inlet duct 204. Exhaust duct 208 may include an inlet (not depicted) and an outlet 210 (e.g., FIG. 4). In at least some instances, air is urged through inlet duct 204 by cooling fan 206 and exhausted upward through exhaust duct 208. For instance, the inlet of the exhaust duct 208 may be located at a bottom of exhaust duct 208 and in fluid communication with cooling fan 206 and inlet duct 204. The outlet 210 of the exhaust duct 208 may be provided at a top of exhaust duct 208 and exposed to the ambient atmosphere, for instance, via the vent trim assembly 200.

[0036] In some embodiments, the cooling system 202 includes a catch basket 212. Catch basket 212 may be selectively received within exhaust duct 208. For instance, catch basket 212 may be received within the outlet 210 of exhaust duct 208. Catch basket 212 may include a wire form, for instance, including a plurality of tines provided in a grid pattern. In some embodiments, the catch basket 212 extends along the lateral direction across a lateral width of the exhaust duct 208. Additionally or alternatively, catch basket 212 may define a plurality of through holes (e.g., as formed by the plurality of tines) through which air, liquid, and small debris may pass.

[0037] In some embodiments, the vent trim assembly 200 includes a lower vent trim 214 and an upper vent trim 216. The lower vent trim 214 may be attached to the exhaust duct 208 of the cooling system 202. For instance, the lower vent trim 214 may include a lower exhaust vent 215 that defines a lower exhaust outlet 217. The outlet 210 of the exhaust duct 208 may be attached or coupled to the lower exhaust vent 215 such that the outlet 210 of the exhaust duct 208 is in direct fluid communication with the lower exhaust outlet 217 of the lower exhaust vent 215. Additionally, in some embodiments, the lower vent trim 214 is selectively attached to the rear edge 262 of the cooktop 140. As will be appreciated in light of the below details, the lower vent trim 214 may be utilized to locate and support the cooktop 140 of the cooking appliance 100 to the vent trim assembly 200.

[0038] The lower vent trim 214 may define a front side 218 and a rear side 220 spaced apart along the transverse direction T. In addition, the lower vent trim 214 may define a first side 222 (e.g., a left side of the cooking appliance 100 when viewed from the front of the cooking appliance 100)

and a second side 224 (e.g., a right side of the cooking appliance 100 when viewed from the front of the cooking appliance 100) spaced apart along the lateral direction L. A front face 226 (e.g., a forward-facing and, optionally, flat or planar face) may be positioned at the front side 218 of the lower vent trim 214. The front face 226 may include a top edge 228 and a bottom edge 230 that are spaced apart along the vertical direction V. The front face 226 may also include one or more clips 232 that are each extended from the top edge 228. The one or more clips 232 may be spaced apart along the lateral direction L along the top edge 228 of the front face 226. As will be appreciated, the one or more clips 232 may each be engaged with the upper vent trim 216 to attach the upper vent trim 216 to the cooktop 140. For instance, a bottom surface of each of the one or more clips 232 may be interfaced with a return flange 254 of the upper vent trim 216. Furthermore, a support ledge 234 may be extended outward from the bottom edge 230 of the front face 226 (e.g., along the transverse direction T). As will be appreciated in light of the below details, the support ledge 234 may advantageously locate the cooktop 140 (e.g., during an assembly process) to an installed position and support the cooktop 140 in the installed position.

[0039] The support ledge 234 of the lower vent trim 214 may be positioned approximately equidistance between the first side 222 and the second side 224 of the lower vent trim 214 (e.g., relative to the lateral direction L). That is, the support ledge 234 may be extended from the front face 226 at an approximate lateral center of the lower vent trim 214, and more particularly, of the front face 226. In some embodiments, the support ledge 234 includes a first portion 236 and a second portion 238. The first portion 236 may be attached directly to the bottom edge 230 of the front face 226. The first portion 236 may be extended from the bottom edge 230 approximately along or parallel to the transverse direction T. Further, the first portion 236 may include a first edge 240 and a second edge 242 that are spaced apart along the transverse direction T. The first edge 240 may be attached directly to the bottom edge 230 of the front face 226.

[0040] The second portion 238 may be attached to the second edge 242 of the first portion 236. In some embodiments, the second portion 238 may be extended outward from the second edge 242 of the second portion 238 at a predetermined angle 244 relative to the second portion 238. For example, the predetermined angle 244 may be measured upwardly from an upward facing surface of the second portion 238 to a plane running along an upward facing surface of the first portion 236. For instance, second portion 238 may extend outward (e.g., toward the front of the cooking appliance 100) and downward (e.g., toward the bottom of the cooking appliance 100) such that the predetermined angle 244 may be an acute angle (e.g., an angle less than ninety degrees).

[0041] Generally, the upper vent trim 216 may be positioned atop the lower vent trim 214. In some embodiments, the upper vent trim 216 includes a vent body 246 attached to the cooktop 140 and the lower vent trim 214. The vent body 246 may include a front face 248, a rear face 250, a top face 252, and a return flange 254 (e.g., FIG. 4). The return flange 254 may be attached to a bottom edge 256 of the front face 248 of the vent body 246. Further, the return flange 254 may be extended along the transverse direction T toward the rear face 250 of the vent body 246. The return flange 254

may include a top surface 258 and a bottom surface 260 spaced apart along the vertical direction V. The bottom surface 260 of the return flange 254 may be interfaced with the cooktop 140 and the top surface 258 of the return flange 254 may be interfaced with the one or more clips 232, for instance, to couple the upper vent trim 216 to the cooktop 140.

[0042] In some embodiments, the exemplary support ledge 234 of the lower vent trim 214 may advantageously prevent or mitigate gaps or voids between the upper vent trim 216 and the cooktop 140. For instance, during assembly of the cooking appliance 100, the second portion 238 of the support ledge 234 may be utilized to locate the cooktop 140 to the vent trim assembly 200. In particular, as the cooktop 140 is positioned on top of the cabinet 102, an operator may slide the cooktop 140 from the front 112 of the cabinet 102 toward the rear 114 of the cabinet 102. Once at the rear 114 of the cabinet 102, a rear edge 262 of the cooktop 140, and more particularly, a rear lip 264 of the rear edge 262 may come into contact with the second portion 238 of the support ledge 234. Due to the angle of the second portion 238 of the support ledge 234, the second portion 238 may direct the rear edge 262 of the cooktop 140 to the first portion 236 of the support ledge 234. The rear edge 262 may then be supported on the first portion 236 of the support ledge 234, for instance, in an “installed position.” Moreover, as the second portion 238 may direct or guide the rear edge 262 to or toward the first portion 236, the second portion 238 may be referred to as a “ramp portion” of the support ledge 234.

[0043] In the installed position, the rear lip 264 of the rear edge 262 may be interfaced with the first portion 236 of the support ledge 234 and therefore supported by the first portion 236. In this regard, the first portion 236 may be referred to as a “support portion” of the support ledge 234. For instance, the support ledge 234, and more particularly, the first portion 236 of the support ledge 234, may be formed from a resilient material (e.g., a metallic material, such as galvanized steel) that is capable of supporting the weight of the rear edge 262 of the cooktop 140. Particularly, the support ledge 234 may support the weight of the cooktop 140 such that a top surface 266 of the rear edge 262 of the cooktop 140 is approximately parallel to the return flange 254. In this regard, when the return flange 254 of the upper vent trim 216 is interfaced with the top surface 266 of the rear edge 262, any undesirable gaps or voids between the upper vent trim 216 and the cooktop 140, for example, due to sagging or deformation of the rear edge 262 of the cooktop 140, may be mitigated or prevented. In some exemplary embodiments, sagging or deformation of the rear edge 262 of the cooktop 140 may be greatest toward the lateral center of the rear edge 262. Thus, positioning of the support ledge 234 (e.g., at the lateral center of the lower vent trim 214) may further mitigate or prevent any undesirable gaps or voids between the upper vent trim 216 and the cooktop 140 in this area.

[0044] 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 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 languages of the claims.

What is claimed is:

1. A cooking appliance defining a vertical direction, a lateral direction, and a transverse direction, the cooking appliance comprising:

a cabinet;

a cooktop provided above the cabinet, the cooktop extending between a front edge and a rear edge along the transverse direction, the rear edge comprising a rear lip; and

a vent trim assembly in fluid communication with the cooking chamber, the vent trim assembly comprising:

a lower vent trim positioned at the rear edge of the cooktop, the lower vent trim comprising a support ledge positioned below the rear edge, the rear lip being interfaced with the support ledge.

2. The cooking appliance of claim 1, wherein the lower vent trim defines a front side and a rear side spaced apart along the transverse direction, wherein the lower vent trim comprises a front face positioned at the front side, wherein the front face comprises a top edge and a bottom edge spaced apart along the vertical direction, and wherein the support ledge is extended outward from the bottom edge of the front face.

3. The cooking appliance of claim 2, wherein the support ledge comprises a first portion attached directly to the bottom edge of the front face, and wherein the rear lip is interfaced with the first portion.

4. The cooking appliance of claim 3, wherein the first portion comprises a first edge and a second edge, wherein the first edge and the second edge are spaced apart along the transverse direction, and wherein the first edge is disposed at the bottom edge of the front face.

5. The cooking appliance of claim 4, wherein the support ledge further comprises a second portion attached to the second edge of the first portion, and wherein second portion defines a predetermined angle relative to the first portion.

6. The cooking appliance of claim 5, wherein the predetermined angle is an acute angle.

7. The cooking appliance of claim 1, wherein the lower vent trim defines a first side and a second side spaced apart along the lateral direction, and wherein the support ledge is positioned approximately equidistance between the first side and the second side.

8. The cooking appliance of claim 1, wherein the vent trim assembly further comprises an upper vent trim, and wherein the upper vent trim is positioned atop of the lower vent trim.

9. The cooking appliance of claim 8, wherein the upper vent trim comprises a return flange, wherein the return flange comprises a bottom surface and a top surface, wherein the lower vent trim comprises a one or more clips, wherein the bottom surface of the return flange is interfaced with the cooktop, and wherein the top surface of the return flange is interfaced with the one or more clips.

10. A vent trim assembly for a cooking appliance, the vent trim assembly defining a vertical direction, a lateral direction, and a transverse direction, the vent trim assembly comprising:

a lower vent trim further defining a first side, a second side, a front side, and a rear side, the first side and the second side spaced apart along the lateral direction, the front side and the rear side spaced apart along the

transverse direction, the lower vent trim comprising a front face positioned at the front side and a support ledge extending outward from the front face.

11. The vent trim assembly of claim **10**, wherein the front face comprises a top edge and a bottom edge spaced apart along the vertical direction, and wherein the support ledge is extended outward from the bottom edge of the front face.

12. The vent trim assembly of claim **11**, wherein the support ledge comprises a first portion attached directly to the bottom edge of the front face, and wherein the rear lip is interfaced with the first portion.

13. The vent trim assembly of claim **12**, wherein the first portion comprises a first edge and a second edge, wherein the first edge and the second edge are spaced apart along the transverse direction, and wherein the first edge is disposed at the bottom edge of the front face.

14. The vent trim assembly of claim **13**, wherein the support ledge further comprises a second portion attached to the second edge of the first portion, and wherein second portion defines a predetermined angle relative to the first portion.

15. The vent trim assembly of claim **14**, wherein the predetermined angle is an acute angle.

16. The vent trim assembly of claim **10**, wherein the lower vent trim defines a first side and a second side spaced apart along the lateral direction, and wherein the support ledge is positioned approximately equidistance between the first side and the second side.

17. The vent trim assembly of claim **10**, wherein the vent trim assembly further comprises an upper vent trim, and wherein the upper vent trim is positioned atop of the lower vent trim.

18. The vent trim assembly of claim **17**, wherein the upper vent trim comprises a return flange, wherein the return flange comprises a bottom surface and a top surface, wherein the lower vent trim comprises a one or more clips, wherein the bottom surface of the return flange is interfaced with a cooktop of the cooking appliance, and wherein the top surface of the return flange is interfaced with the one or more clips.

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