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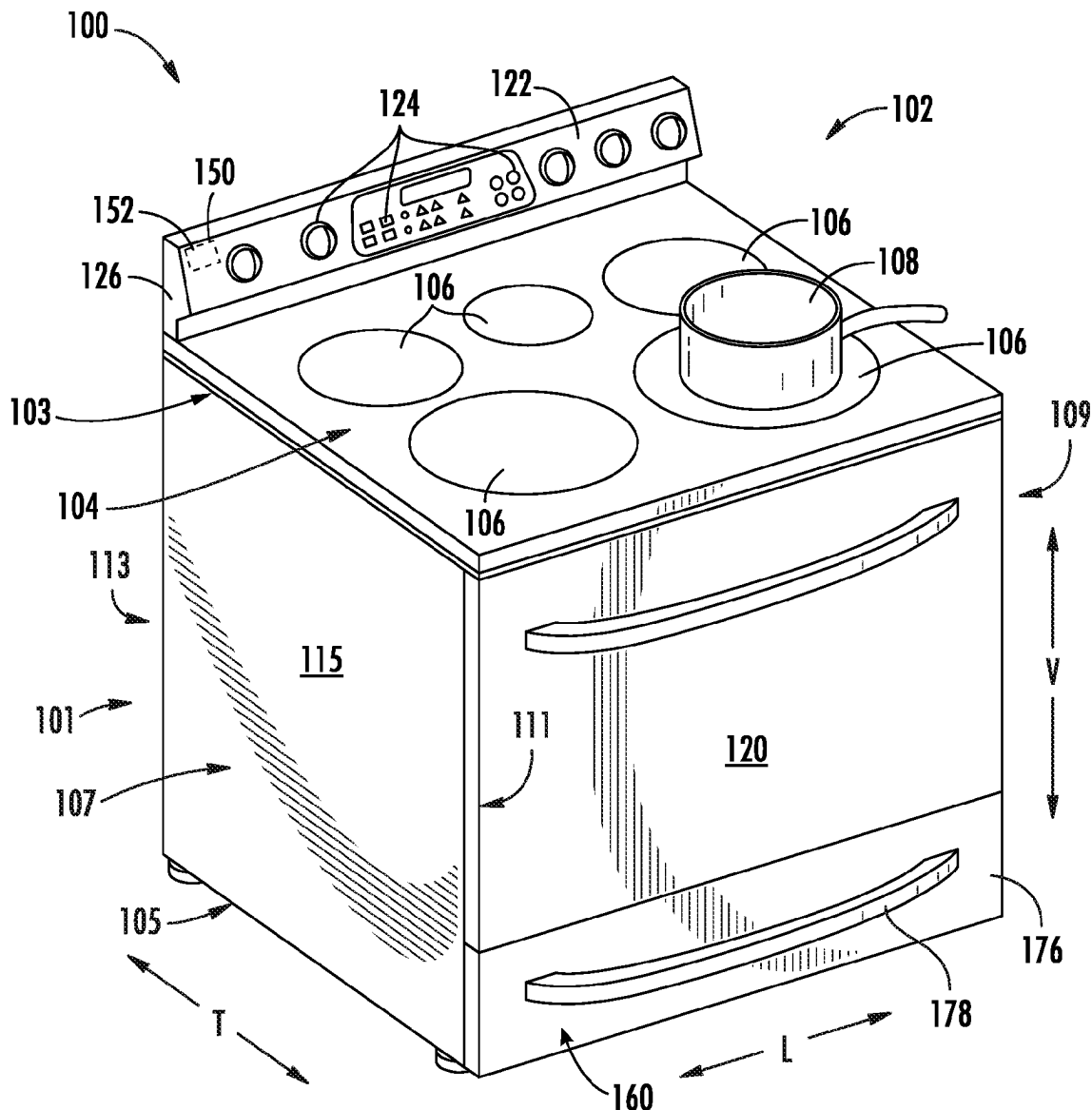
(19) **United States**(12) **Patent Application Publication****Nelson**(10) **Pub. No.: US 2025/0264225 A1**(43) **Pub. Date: Aug. 21, 2025**(54) **HOUSING ASSEMBLY FOR A COOKING APPLIANCE**(52) **U.S. Cl.**CPC **F24C 15/023** (2013.01)(71) Applicant: **Haier US Appliance Solutions, Inc.**,
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ABSTRACT

A housing assembly for a cooking appliance may include a rear frame and a front frame spaced apart from the rear frame along the transverse direction. The front frame may define a chamber opening and drawer opening. The drawer opening may be positioned below the chamber opening. The front frame may include a frame sill positioned at bottom of the front frame. The frame sill may be extended along the lateral direction. The frame sill may include a first portion, a second portion, and a jog. The jog may be positioned between the first portion and the second portion to raise the second portion along the vertical direction by a predetermined amount. The housing assembly may also include a base rail disposed at a bottom lateral edge of the housing assembly. The base rail may be extended along the transverse direction between the rear frame and the front frame.



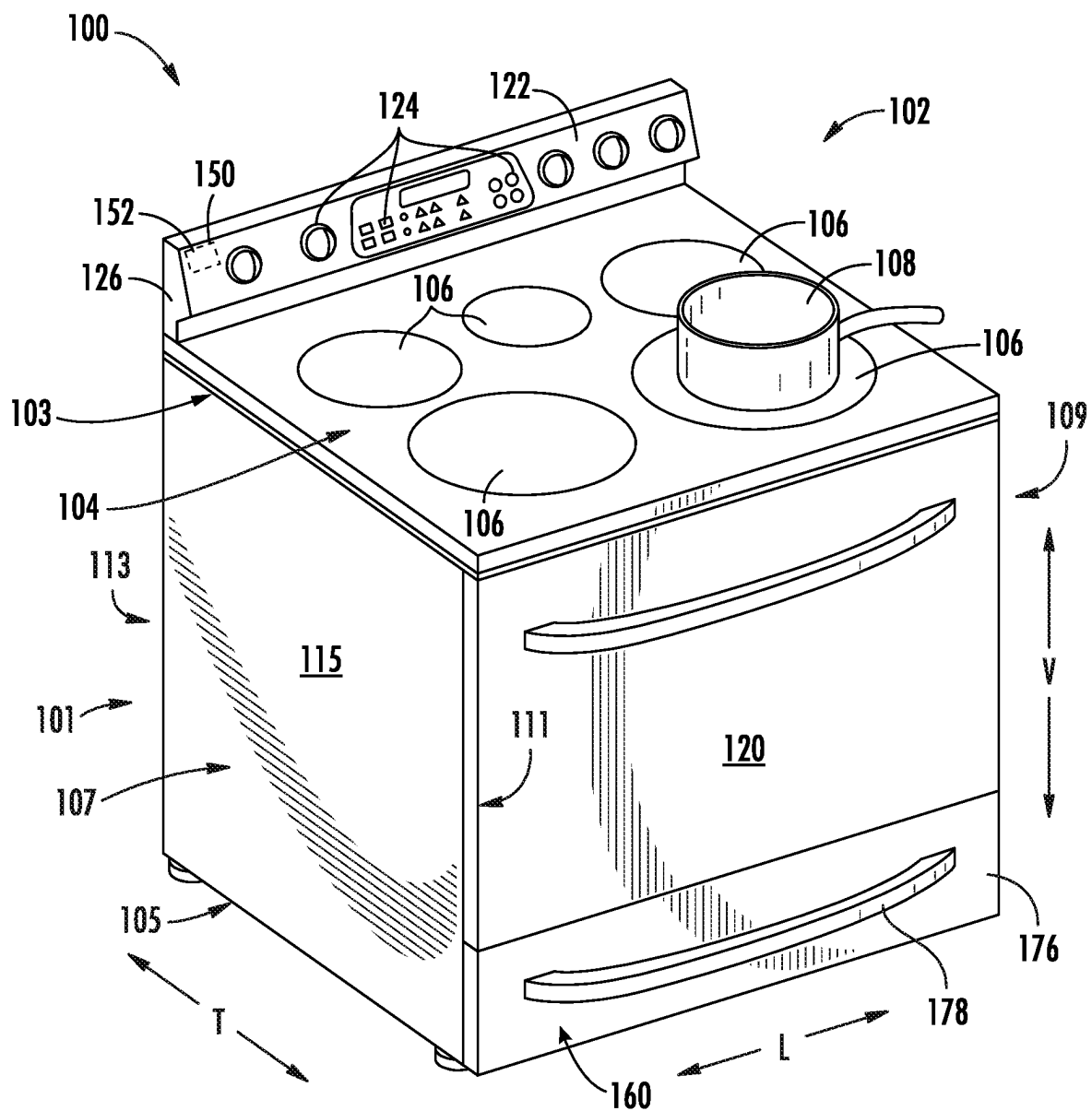


FIG. 1

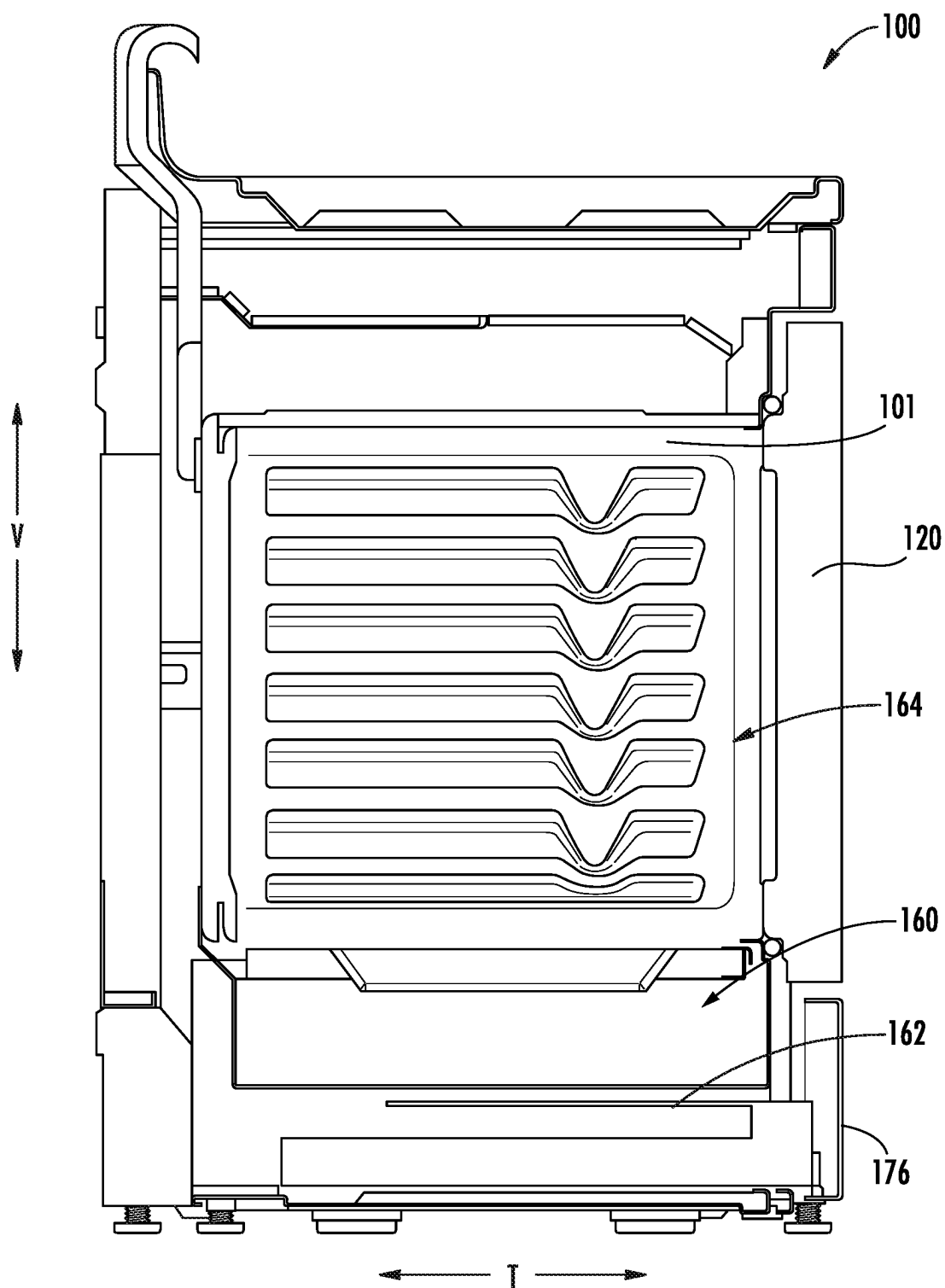


FIG. 2

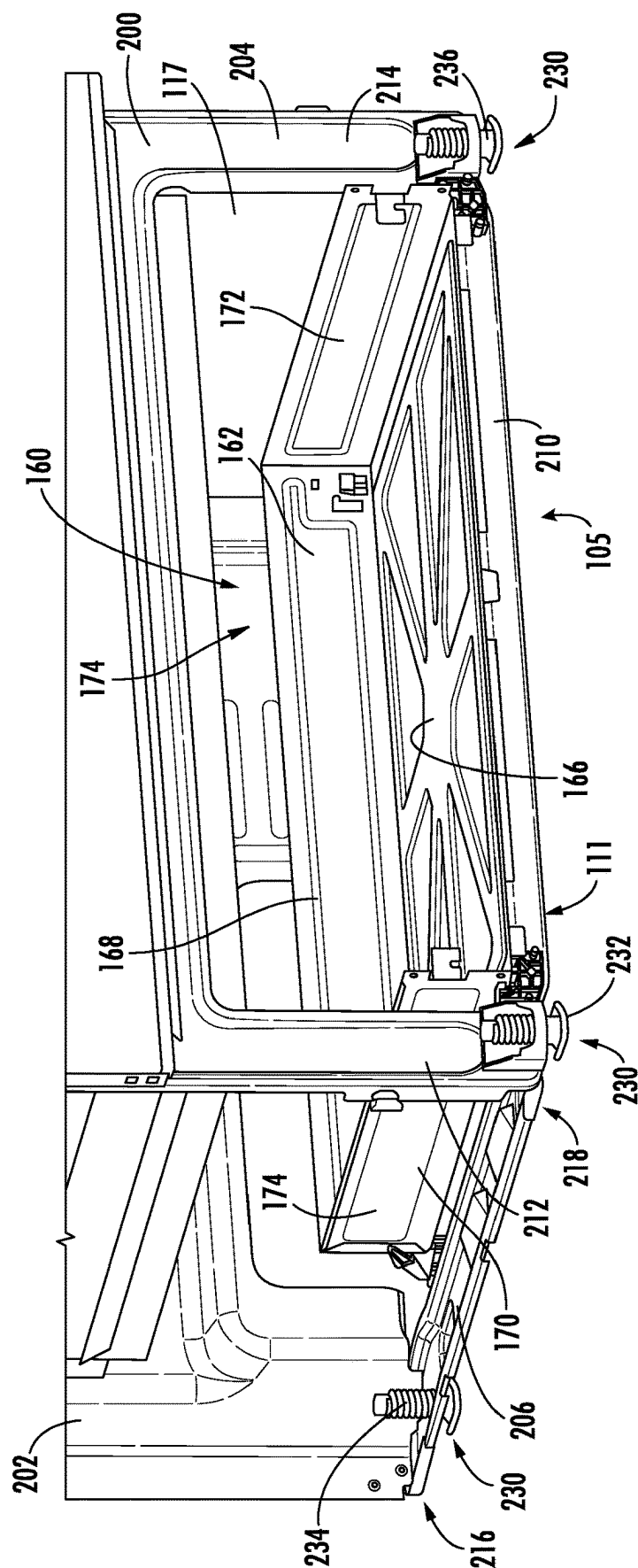
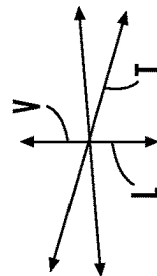


FIG. 3



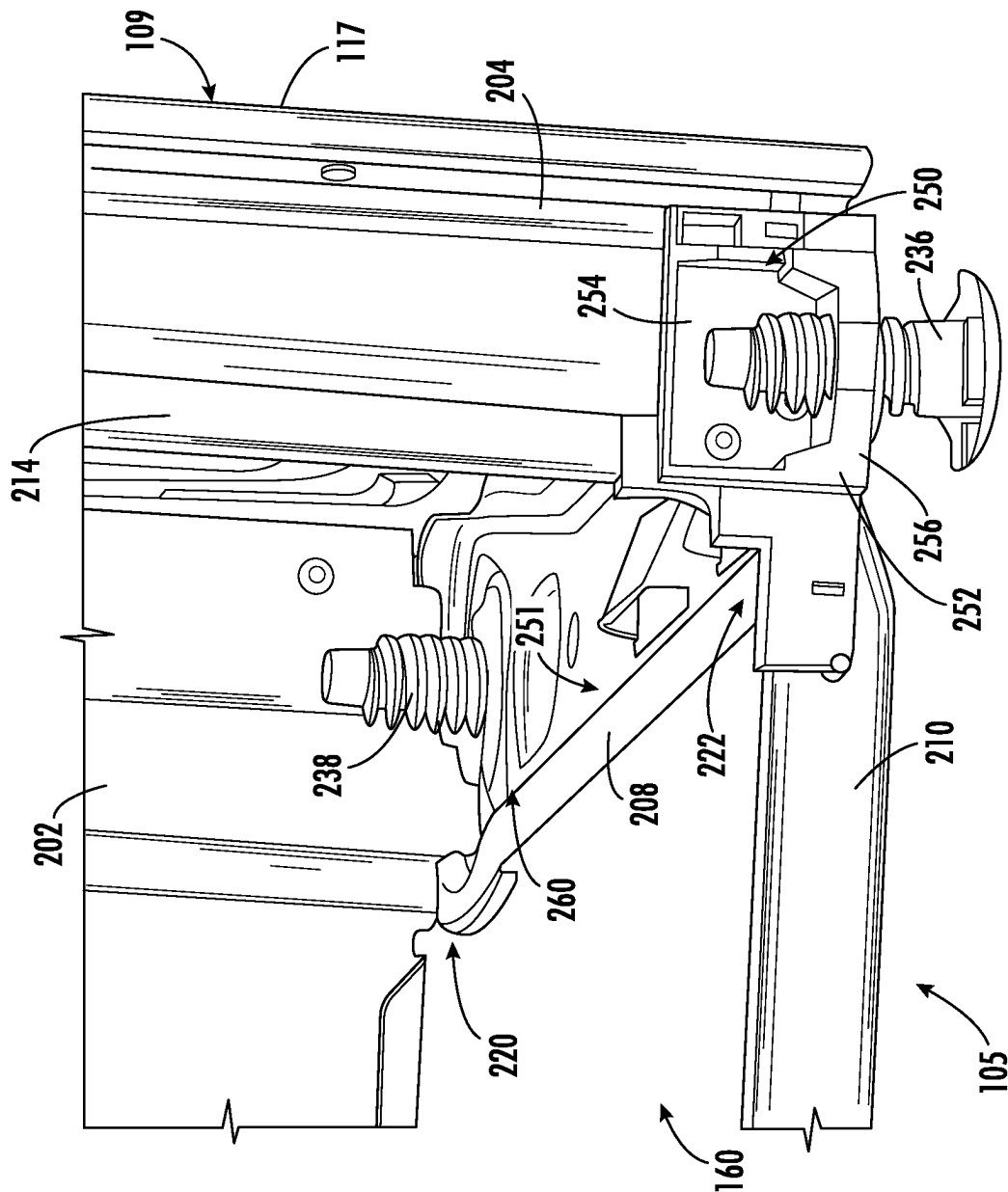


FIG. 4

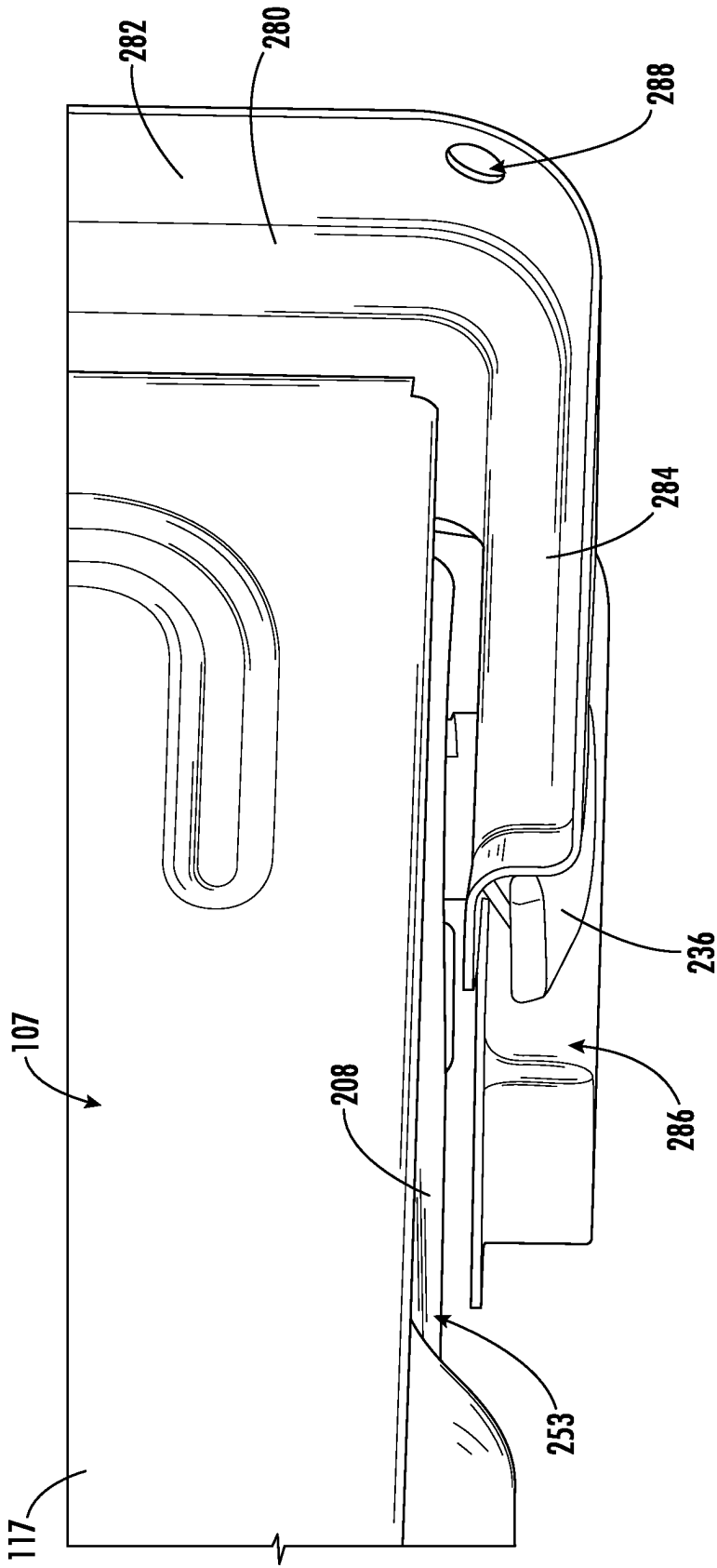


FIG. 6

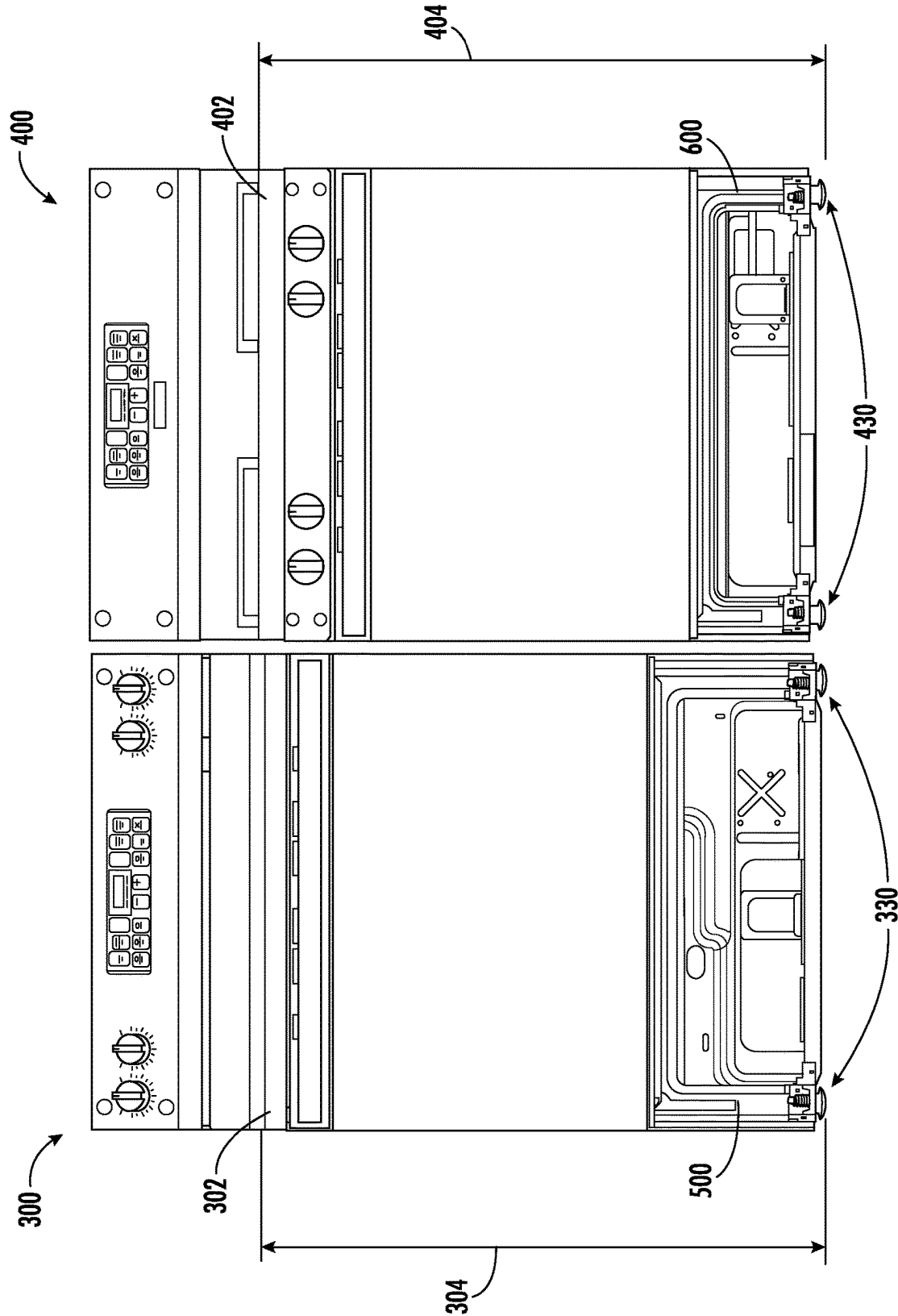


FIG. 7

HOUSING ASSEMBLY FOR A COOKING APPLIANCE

FIELD OF THE DISCLOSURE

[0001] The present subject matter relates generally to cooking appliance, and more particularly to a housing assembly 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. 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. Cooking appliances that include both an oven and a cooktop are commonly referred to as “ranges.”

[0003] Often, ranges are equipped with height adjustment features to adjust an installed height of the cooktop. Particularly, the height adjustment features can be adjusted such that a top surface of cooktop can sit flush next to an adjacent countertop. However, challenges currently exist related to flush installations of cooktops relative to countertops. Particularly in some settings, countertop heights are lower (e.g., due to thinner countertops or user preference) than the current industry standard minimum height of cooktops. Thus, current cooking appliances may not be capable of having a cooktop that can sit flush with adjacent countertops.

[0004] Accordingly, a cooking 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 cooktop defining a cooktop height. The cooking appliance may also include a housing assembly positioned below the cooktop. The housing assembly may include a rear frame. The housing assembly may also include a front frame spaced apart from the rear frame along the transverse direction. The front frame may define a chamber opening and drawer opening. The drawer opening may be positioned below the chamber opening. The front frame may include a frame sill positioned at bottom of the front frame. The frame sill may be extended along the lateral direction. The frame sill may include a first portion, a second portion, and a jog. The jog may be positioned between the first portion and the second portion to raise the second portion along the vertical direction by a predetermined amount. The housing assembly may also include a base rail disposed at a bottom lateral edge of the housing assembly. The base rail may extend along the transverse direction between the rear frame and the front frame. The housing assembly may also include a height adjustment assembly. The height adjustment assembly may include a front leveling leg and a rear leveling leg. The front leveling leg may be movably mounted to the front frame to

adjust the cooktop height. The rear leveling leg may be movably mounted to the base rail to adjust the cooktop height.

[0007] In another exemplary aspect of the present disclosure, a housing assembly for a cooking appliance is provided. The cooking appliance may define a vertical direction a lateral direction and a transverse direction. The housing assembly may include a rear frame. The housing assembly may also include a front frame spaced apart from the rear frame along the transverse direction. The front frame may define a chamber opening and drawer opening. The drawer opening may be positioned below the chamber opening. The front frame may include a frame sill positioned at bottom of the front frame. The frame sill may be extended along the lateral direction. The frame sill may include a first portion, a second portion, and a jog. The jog may be positioned between the first portion and the second portion to raise the second portion along the vertical direction by a predetermined amount. The housing assembly may also include a base rail disposed at a bottom lateral edge of the housing assembly. The base rail may be extended along the transverse direction between the rear frame and the front frame.

[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 perspective view of a bottom portion of the exemplary cooking appliance of FIG. 1 with a drawer face and a portion of a first side wall removed.

[0013] FIG. 4 provides a close-up perspective view of a front corner of a housing assembly of the exemplary cooking appliance of FIG. 1.

[0014] FIG. 5 provides a close-up perspective view of a front corner of a housing assembly of the exemplary cooking appliance of FIG. 1 with a front adjustment bracket and a front leveling leg removed.

[0015] FIG. 6 provides a close-up perspective of a back corner of the cooking appliance of FIG. 1

[0016] FIG. 7 provides a front view of an electric cooking appliance and a gas cooking appliance according to one or more exemplary aspects of the present disclosure.

[0017] 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

[0018] 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.

[0019] 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”). The term “at least one of” in the context of, e.g., “at least one of A, B, and C” refers to only A, only B, only C, or any combination of A, B, and C. 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.

[0020] 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 10 percent margin, i.e., 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.

[0021] 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.

[0022] Referring now to the figures, FIG. 1 provides a perspective view of a range appliance 100 including a cooktop 102 and FIG. 2 provides a side cut-away view of the range appliance 100. Range appliance 100 is provided by way of example only and is not intended to limit the present subject matter to the arrangement shown in FIGS. 1 and 2. Thus, the present subject matter may be used with other

range appliance 100 or cooktop 102 configurations, e.g., double oven range appliances, gas cooktops, etc. As illustrated, range 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.

[0023] The range appliance 100 may include a cabinet 101. The cabinet 101 may extend between a top 103 and a bottom 105 along the vertical direction V. The cabinet 101 may extend, between a left side 107 and a right side 109 along the lateral direction, and between a front 111 and a rear 113 along the transverse direction T. The cabinet 101 may include a first side wall 115 and a second side wall 117. The first side wall 115 may be positioned at the left side 107 of the cabinet 101. The second side wall 117 may be positioned at the right side 109 of the cabinet 101. A cooking surface 104 of cooktop 102 includes a plurality of heating elements 106. For the embodiment depicted, the cooktop 102 includes five heating elements 106 spaced along cooking surface 104. Moreover, for the embodiment depicted, the heating elements 106 are generally electric heating elements and are positioned at, e.g., on or proximate to, the cooking surface 104.

[0024] However, in other embodiments, the cooktop 102 may include any other suitable shape, configuration, or number of heating elements 106. For example, the cooktop 102 may include one or more heating elements 106 spaced along the cooking surface 104, such as three or more heating elements 106 spaced along the cooking surface 104, such as six or more heating elements 106 spaced along the cooking surface 104. As another example, in certain exemplary embodiments, the cooktop 102 may be a gas-powered cooktop. For instance, in such embodiments, the cooktop 102 may include one or more gas burners mounted below or through the cooking surface 104.

[0025] As shown in FIG. 1, a cooking utensil 108, such as a pot, pan, or the like, may be placed on a heating element 106 to heat the cooking utensil 108 and cook or heat food items placed in cooking utensil 108. Range appliance 100 also includes a door 120 that permits access to a cooking chamber 164 of range appliance 100, e.g., for cooking or baking of food items therein. A control panel 122 having controls 124 permits a user to make selections for cooking of food items. Although shown on a backsplash or back panel 126 of range appliance 100, control panel 122 may be positioned in any suitable location. Controls 124 may include buttons, knobs, and the like, as well as combinations thereof, or controls 124 may be implemented on a remote user interface device such as a smartphone, as described below. As an example, a user may manipulate one or more controls 124 to select a temperature or a heat or power output for each heating element 106 and the cooking chamber 164. The selected temperature or heat output of heating element 106 affects the heat transferred to cooking utensil 108 placed on heating element 106.

[0026] In some embodiments, the range appliance 100 includes a control system 150 for controlling one or more of the plurality of heating elements 106 and the cooking chamber 164. Specifically, the control system 150 may include a controller 152 operably connected to the control panel 122 and controls 124. The controller 152 may be operably connected to each of the plurality of heating elements 106 for controlling a power supply to each of the

plurality of heating elements **106** in response to one or more user inputs received through the control panel **122** and controls **124**.

[0027] Referring now to FIGS. 3 through 6, the range appliance **100** may define a drawer recess **160**, into which a drawer assembly **162** may be inserted. In some embodiments, the drawer recess **160** may be provided underneath a cooking chamber **164**, for example. A user may store various items (e.g., cooking utensils **108** or the like) within drawer recess **160**. Additionally or alternatively, drawer recess **160** may be used as a temporary storage area for food (e.g., as a warming zone or area). According to some embodiments, drawer recess **160** may be an additional cooking or baking zone, in which food items may be cooked or baked. It should be noted that drawer recess **160** may be used for any suitable purposes, and the disclosure is not limited to those examples given herein. An opening to drawer recess **160** may be defined in the lateral direction **L** and vertical direction **V**. In detail, drawer recess **160** may be configured such that drawer assembly **162** is withdrawn in the transverse direction **T** from drawer recess **160**.

[0028] Drawer assembly **162** may include a main panel **166**, a rear panel **168**, a first side panel **170**, and a second panel **116**. Accordingly, main panel **166**, rear panel **168**, first side panel **170**, and second side panel **172** may form a drawer body **174** having a cuboid shape into which various items may be placed. It should be noted that drawer body **174** may be formed from a single piece and bent into the cuboid shape according to certain embodiments. Drawer assembly **162** may include a front panel or door face **176** including a handle **178** (see e.g., FIG. 1) used to withdraw and insert drawer assembly **162** into drawer recess **160**. When assembled, first side panel **170** and second side panel **172** may be defined in the transverse direction **T** and the vertical direction **V**. Rear panel **168** may be defined in the lateral direction **L** and the vertical direction **V**. Main panel **166** may be defined in the lateral direction **L** and the transverse direction **T**. A rear portion of each of first side panel **170** and second side panel **172** may extend further in the transverse direction **T** than a position of rear panel **168**. In other words, each of first side panel **170** and second side panel **172** may define an overhang or extension in the transverse direction (e.g., behind rear panel **168** in the transverse direction **T**).

[0029] In some embodiments, the range appliance **100** includes a housing assembly **200**. The housing assembly **200** may generally be provided as a chassis or a supporting frame for the cabinet **101**. For instance, portions of the cabinet **101**, such as a first side wall **115** or the second side wall **117** may be attached to or mounted to (e.g., via welds, mechanical fasteners, etc.) the housing assembly **200** to form the cabinet **101**. In addition, the housing assembly **200** may generally include a rear frame **202**, a front frame **204**, a first base rail **206**, and a second base rail **208**. The front frame **204** and the rear frame **202** may be spaced apart along the transverse direction **T**. For instance, the front frame **204** and the rear frame **202** may be positioned at the front **111** and the rear **113** of the range appliance **100**, respectively. In some embodiments, the front frame **204** and rear frame **202** define the front **111** or the rear **113** of the cabinet **101**, respectively. The front frame **204** may extend between the top **103** (e.g., the top of the cooking chamber) and the bottom **105** of the range appliance **100**.

[0030] In some embodiments, the front frame **204** includes a frame sill **210**, a first side member **212**, and a second side member **214**. The frame sill **210** may be positioned at the bottom of the front frame **204**. In addition, the frame sill **210** may be positioned at or proximate the front **111** of the range appliance **100**. The frame sill **210** may generally extend along the lateral direction **L** between the first side member **212** and the second side member **214**. The first side member **212** may be extended along the vertical direction **V** from the frame sill **210** at the left side **107** of the range appliance **100**. The second side member **214** may be extended along the vertical direction **V** from the frame sill **210** at the right side **109** of the range appliance **100**.

[0031] The first base rail **206** may generally be positioned at the bottom **105** and the left side **107** of the range appliance **100**. In addition, the first base rail **206** may be extended along the transverse direction **T** between the rear frame **202** and the front frame **204**. A first end **216** of the first base rail **206** may be attached to, or coupled to, the rear frame **202**. A second end **218** of the first base rail **206** may be attached to, or coupled to, the front frame **204**. The second base rail **208** (see, e.g., FIG. 4) may generally be positioned at the bottom **105** and the right side **109** of the range appliance **100**. In addition, the second base rail **208** may be extended along the transverse direction **T** between the rear frame **202** and the front frame **204**. A first end **220** of the second base rail **208** may be attached to, or coupled to, the rear frame **202**. A second end **222** of the second base rail **208** may be attached to, or coupled to, the front frame **204**.

[0032] In some embodiments, a height adjustment assembly **230** may be attached to the housing assembly **200**. The height adjustment assembly **230** may be configured to adjust a cooktop height of the range appliance **100**. For instance, the height adjustment assembly **230** may be capable of increasing or decreasing the total distance between the cooktop **102** and a predetermined ground surface that the range appliance **100** may be positioned on. In some embodiments, the height adjustment assembly **230** includes a first front leveling leg **232**, a first rear leveling leg **234**, a second front leveling leg **236**, and a second rear leveling leg **238**. As will be appreciated in more detail below, each of the first front leveling leg **232**, the first rear leveling leg **234**, the second front leveling leg **236**, and the second rear leveling leg **238** (see e.g., FIGS. 4 and 6) may be movably mounted to the housing assembly **200** to adjust the cooktop height of the range appliance **100**.

[0033] Referring now specifically to FIGS. 4 and 5, close-up perspective views of a bottom portion of the right side **109** of the range appliance **100** are provided. As should be appreciated, for the purposes of clarity and brevity, only the bottom portion of the right side **109** of the range appliance **100**, and components positioned at or proximate to the bottom portion of the right side **109** of range appliance **100** are illustrated and described in more detail below. One of ordinary skill in the art would recognize that the structure, configuration, or function of the components illustrated and described below may be mirrored or identical to the structure, configuration, or function of components positioned at or proximate to the first side of the range appliance **100**. For instance, the structure, function, or configuration of the second base rail **208** described below may mirror or may be identical to the structure, function, or configuration of the first base rail **206**. For example, the second base rail **208** may include a top surface **251** and a bottom surface **253** spaced

apart along the vertical direction V. The first base rail 206 may include a top surface and a bottom surface that mirror or are identical to the top surface 251 and the bottom surface 253 of the second base rail 208.

[0034] In some embodiments, the frame sill 210 includes a first portion 240, a second portion 242, and a jog 244. The first portion 240 may be the main body of the frame sill 210. For instance, the first portion 240 may extend along the lateral direction L across the majority of housing assembly 200. The jog 244 may be positioned between the first portion 240 and the second portion 242. The jog 244 may define an offset or displacement of the bottom edge of the frame sill 210. For instance, the jog 244 may raise or lift the second portion 242 along the vertical direction V by a predetermined amount 248. Particularly, the jog 244 may raise or lift a bottom edge 246 of the frame sill 210 by a predetermined amount 248. As will be appreciated, this offset, or displacement, may be utilized to accommodate the second base rail 208. In particular, the jog 244 may allow the second base rail 208 to sit within the housing assembly 200. As illustrated, in FIG. 5, the second side member 214 may be extended along the vertical direction V from the second portion 242 of the frame sill 210. The second portion 242 of the frame sill 210 and the second side member 214 may together define a bottom corner 250 of the front frame 204.

[0035] In some embodiments, due to the vertical positioning of the second portion 242 of the frame sill 210, when the second base rail 208 is attached to the second portion 242 of the frame sill 210, the second base rail 208 may be positioned within the housing assembly 200. That is, the bottom surface 253 of the second base rail 208 may be, at least in part, positioned at or vertically above, the bottom edge 246 of the second portion 242 of the frame sill 210. In this regard, the second base rail 208 may be elevated above the bottom most point of the frame sill 210 (e.g., the bottom edge 246 of the first portion 240 of the frame sill 210) such that the second base rail 208 is positioned “within” the housing assembly 200.

[0036] As briefly mentioned above, the height adjustment assembly 230 may include a second front leveling leg 236 and a second rear leveling leg 238. The second front leveling leg 236 may be movably mounted to the front frame 204 to adjust the cooktop height defined by a cooktop of the range appliance 100. Particularly, second front leveling leg 236 may be rotatable mounted to the front frame 204 within a front adjustment bracket 252. The front adjustment bracket 252 may generally include a main body 254 and a leg mount 256. The main body 254 may be mounted to the front face of the front frame 204 at the bottom corner 250. The leg mount 256 may be extended from the main body 254 along the transverse direction T. The leg mount 256 may define a leg aperture (not depicted). The second front leveling leg 236 may be movably mounted within the leg mount 256 to adjust the cooktop height. For instance, the second front leveling leg 236 may include a threaded portion that is movably mounted within a complementary threaded portion within the leg aperture.

[0037] The second rear leveling leg 238 may be movably mounted within the second base rail 208 to adjust the cooktop height. For instance, the second rear leveling leg 238 may include a threaded portion that is movably mounted within a complementary threaded aperture defined at a rear portion 260 of the second base rail 208. The rear portion 260 of the second base rail 208 may be positioned at, or

proximate to, the first end 220 of the second base rail 208. That is, the rear portion 260 of the second base rail 208 may be positioned closer to the first end 220 of the second base rail 208 than the second end 222 of the second base rail 208, such as within the rear twenty five percent of the transverse length of the second base rail 208, such as within the rear fifteen percent of the transverse length of the second base rail 208, such as within the rear five percent of the transverse length of the second base rail 208.

[0038] As an illustrative example, a user may rotate the second front leveling leg 236 or the second rear leveling leg 238 within the respective complementary threaded aperture to raise or lower the cooktop height. In some exemplary embodiment, the second front leveling leg 236 or the second rear leveling leg 238 may be raised or lowered independently of each other to “level” the range appliance 100 and more particularly, the cooktop 102 of the range appliance 100. In some other embodiments, the second front leveling leg 236 or the second rear leveling leg 238 may be raised or lowered together raise or lower the cooktop height.

[0039] As should be appreciated, the first front leveling leg 232 or the first rear leveling leg 234 may also be raised or lower independently to “level” the range appliance 100, and more particularly, the cooktop 102 of the range appliance 100. In this regard, first front leveling leg 232, the first rear leveling leg 234, the second front leveling leg 236, or the second rear leveling leg 238 may be raised or lowered independently of each other to “level” the range appliance 100, and more particularly, the cooktop 102 of the range appliance 100. Moreover, the first front leveling leg 232 or the first rear leveling leg 234 may be raised or lowered together to raise or lower the cooktop height. In this regard, first front leveling leg 232, the first rear leveling leg 234, the second front leveling leg 236, or the second rear leveling leg 238 may be raised or lowered together to raise or lower the cooktop height.

[0040] Referring now briefly to FIG. 6, a perspective view of a bottom portion of the right side 109 of the range appliance 100 is provided. Optionally, in some embodiments, the range appliance 100 may be coupled to one or more tip mitigation brackets 280. The tip mitigation brackets may be provided to prevent the freestanding range appliance 100 from tipping. The exemplary one or more tip mitigation brackets 280 may include a vertical portion 282 and a horizontal portion 284. The horizontal portion 284 may define a leg opening 286 for receiving the first rear leveling leg 234 or the second rear leveling leg 238. The one or more tip mitigation brackets 280 may also define one or more fastener holes 288 therethrough. The one or more tip mitigation brackets 280 may fasten to a predetermined support structure (e.g., a wall, a corner seal, etc.) via the one or more fastener holes 288 to secure the one or more tip mitigation brackets 280.

[0041] In some embodiments, the positioning of the first base rail 206 or the second base rail 208 (e.g., the vertical positioning of the base rail “within” the housing assembly 200) may allow the first rear leveling leg 234 or the second rear leveling leg 238, respectively to engage with tip mitigation brackets 280. Particularly, the positioning of the first base rail 206 and the second base rail 208 may allow the first rear leveling leg 234 and the second rear leveling leg 238 to engage with the tip mitigation brackets 280 when the first rear leveling leg 234 or the second rear leveling leg 238 are rotated to their lowest positions. For example, when the first

rear leveling leg **234** or the second rear leveling leg **238** are rotated such that the rear of cooktop **102** defines the minimum cooktop height, the first rear leveling leg **234** and the second rear leveling leg **238** may engage with the tip mitigation brackets **280**.

[0042] Additionally or alternatively, when the first rear leveling leg **234** or the second rear leveling leg **238** are rotated to the lowest position (e.g., the position of the first rear leveling leg **234** or the second rear leveling leg **238** when the minimum cooktop height may be defined), the horizontal portion(s) **284** of the tip mitigation brackets **280** may be positioned below the bottom surface(s) **253** of the first base rail **206** or the second base rail **208**.

[0043] According to one or more exemplary embodiments of the present subject matter, the housing assembly **200** may be utilized as a universal or common housing assembly **200** for range appliances **100**. For instance, the exemplary housing assembly **200** may be a common or a universal chassis for both gas range appliance **100** and electric range appliance **100s**. As described in more detail above, the height adjustment assembly **230** may be capable of adjusting a height of the cooktop to a minimum cooktop height (e.g., that may be lower than the minimum cooktop height that may be commonly known in the art).

[0044] For example, referring now to FIG. 7, a front view of an electric range appliance **300** and a gas range appliance **400** is provided. Except as otherwise indicated, the exemplary electric range appliance **300** or the exemplary gas range appliance **400** of FIG. 7 may be configured in substantially the same manner as the exemplary range appliance **100** of FIGS. 1 through 6, and accordingly, the same or similar numbers may refer to the same or similar parts. For example, the electric range appliance **300** may include a cooktop **302** defining a first cooktop height **304**, a height adjustment assembly **330**, or a housing assembly **500**. As another example, the gas range appliance **400** may include a cooktop **402** defining a second cooktop height **404**, a height adjustment assembly **430**, or a housing assembly **600**. Similar to FIG. 1, the electric range appliance **300** may include an electric heating element positioned at or within the cooktop **302**. However, the cooktop **402** of the gas range appliance **400** may include a gas burner positioned at or within the cooktop **402**.

[0045] The first cooktop height **304** may be measured from a bottom most point or surface of a height adjustment assembly **330** to a top surface of the cooktop **302**. Due to the positioning of the base rails within the housing assembly **500**, the exemplary electric range appliance **300** may be capable of lowering to a first minimum cooktop height. The first minimum cooktop height may correspond to the lowest setting or position of the height adjustment assembly **330**. For example, the first minimum cooktop height of the exemplary electric range appliance **300** may be approximately thirty-five and five eighth inches (35.625").

[0046] The second cooktop height may be measured from a bottom most point or surface of the height adjustment assembly **430** to a top surface of the cooktop **402**. Due to the positioning of the base rails within the housing assembly **600**, the exemplary gas range appliance **400** may be capable of lowering to a second minimum cooktop height. The second minimum cooktop height may correspond to the lowest setting or position of the height adjustment assembly **430**. For example, the second minimum cooktop height of

the exemplary gas range appliance **400** may be approximately thirty-six inches (36").

[0047] In some embodiments, the second minimum cooktop height of the exemplary gas range appliance **400** may be greater than the first minimum cooktop height of the exemplary gas range appliance **400** (e.g., due to restrictions or mandates that may govern the assembly of gas range appliances **400**). However, one of ordinary skill in the art would understand that in some other embodiments, the gas range appliance **400** may be capable of defining the first minimum cooktop height.

[0048] 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 cooktop defining a cooktop height;
- a housing assembly positioned below the cooktop, the housing assembly comprising:
 - a rear frame;
 - a front frame spaced apart from the rear frame along the transverse direction, the front frame defining a chamber opening and drawer opening, the drawer opening being positioned below the chamber opening, the front frame comprising a frame sill positioned at bottom of the front frame, the frame sill extending along the lateral direction, the frame sill comprising a first portion, a second portion, and a jog, the jog being positioned between the first portion and the second portion to raise the second portion along the vertical direction by a predetermined amount;
 - a base rail disposed at a bottom lateral edge of the housing assembly, the base rail extending along the transverse direction between the rear frame and the front frame; and
 - a height adjustment assembly comprising a front leveling leg and a rear leveling leg, the front leveling leg being movably mounted to the front frame to adjust the cooktop height, and the rear leveling leg being movably mounted to the base rail to adjust the cooktop height.

2. The cooking appliance of claim 1, wherein the base rail comprises a top surface and a bottom surface spaced apart along the vertical direction, wherein the second portion of the frame sill comprises a bottom edge, and wherein the bottom surface of the base rail is positioned at, or above, the bottom edge of the second portion of the frame sill.

3. The cooking appliance of claim 1, wherein the front frame further comprises a side member extended along the vertical direction from the second portion of the frame sill, and wherein the second portion of the frame sill and the side member together define a bottom corner of the front frame.

4. The cooking appliance of claim 3, wherein the height adjustment assembly further comprises a front adjustment bracket, wherein the front adjustment bracket comprises a main body and a leg mount, wherein the leg mount is extended from the main body along the transverse direction, wherein the leg mount defines a leg aperture, wherein the main body is mounted to a front face of the bottom corner, and wherein the front leveling leg is movably mounted within the leg mount to adjust the cooktop height.

5. The cooking appliance of claim 4, wherein the main body of the front adjustment bracket is mounted to the front face of the front frame at the bottom corner via one or more mechanical fasteners.

6. The cooking appliance of claim 1, wherein the rear leveling leg is movably mounted within a rear portion of the base rail to adjust the cooktop height.

7. The cooking appliance of claim 6, wherein the housing assembly further comprises a tip mitigation bracket, wherein the tip mitigation bracket comprises a vertical portion and a horizontal portion, wherein the horizontal portion defines a leg opening, wherein the rear leveling leg is received within the leg opening, wherein the tip mitigation bracket defines one or more fastener holes therethrough, and wherein the tip mitigation bracket is fastened to a predetermined support structure via the one or more fastener holes.

8. The cooking appliance of claim 7, wherein the base rail comprises a top surface and a bottom surface spaced apart along the vertical direction, and wherein the horizontal portion of the tip mitigation bracket is positioned below the bottom surface of the base rail.

9. The cooking appliance of claim 1, wherein the cooktop includes an electric heating element, and wherein the electric heating element defines a first minimum cooktop height for the cooktop.

10. The cooking appliance of claim 1, wherein the cooktop includes a gas burner, and wherein the gas burner defines a second minimum cooktop height for the cooktop.

11. A housing assembly for a cooking appliance defining a vertical direction, a lateral direction, and a transverse direction, the housing assembly comprising:

a rear frame;

a front frame spaced apart from the rear frame along the transverse direction, the front frame defining a chamber opening and drawer opening, the drawer opening being positioned below the chamber opening, the front frame comprising a frame sill positioned at bottom of the front frame, the frame sill extending along the lateral direction, the frame sill comprising a first portion, a second portion, and a jog, the jog being positioned between the first portion and the second portion to raise the second portion along the vertical direction by a predetermined amount; and

a base rail disposed at a bottom lateral edge of the housing assembly, the base rail extending along the transverse direction between the rear frame and the front frame.

12. The housing assembly of claim 11, wherein the base rail comprises a top surface and a bottom surface spaced

apart along the vertical direction, wherein the second portion of the frame sill comprises a bottom edge, and wherein the bottom surface of the base rail is positioned at, or above, the bottom edge of the second portion of the frame sill.

13. The housing assembly of claim 11, wherein the front frame further comprises a side member extended along the vertical direction from the second portion of the frame sill, and wherein the second portion of the frame sill and the side member together define a bottom corner of the front frame.

14. The housing assembly of claim 13, further comprising:

a height adjustment assembly comprising a front leveling leg and a rear leveling leg, the front leveling leg being movably mounted to the front frame to adjust a cooktop height defined by a cooktop of the cooking appliance, and the rear leveling leg being movably mounted to the base rail to adjust the cooktop height.

15. The housing assembly of claim 14, wherein the height adjustment assembly further comprises a front adjustment bracket, wherein the front adjustment bracket comprises a main body and a leg mount, wherein the leg mount is extended from the main body along the transverse direction, wherein the leg mount defines a leg aperture, wherein the main body is mounted to a front face of the bottom corner, and wherein the front leveling leg is movably mounted within the leg mount to adjust the cooktop height.

16. The housing assembly of claim 14, the rear leveling leg is movably mounted within a rear portion of the base rail to adjust the cooktop height.

17. The housing assembly of claim 16, further comprising:

a tip mitigation bracket comprising a vertical portion and a horizontal portion, the horizontal portion defining a leg opening for receiving the rear leveling leg, wherein the tip mitigation bracket defines one or more fastener holes therethrough, and wherein the tip mitigation bracket is fastened to a predetermined support structure via the one or more fastener holes.

18. The housing assembly of claim 17, wherein the base rail comprises a top surface and a bottom surface spaced apart along the vertical direction, and wherein the horizontal portion of the tip mitigation bracket is positioned below the bottom surface of the base rail.

19. The housing assembly of claim 13, wherein the cooking appliance includes an electric heating element, and wherein the electric heating element defines a first minimum cooktop height for a cooktop of the cooking appliance.

20. The housing assembly of claim 13, wherein the cooking appliance includes a gas burner, and wherein the gas burner defines a second minimum cooktop height for a cooktop of the cooking appliance.

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