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### DISPENSING ASSEMBLY FOR A DOMESTIC APPLIANCE

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#### Abstract

A domestic appliance may include a housing defining a chamber, a door mounted to the housing, and a dispensing assembly. The dispensing assembly may include a dispenser disposed at an exterior of the door. The dispenser may include a dispenser outlet for accessing ice pieces or liquid water. The dispensing assembly may include an ice chute positioned within the dispenser outlet for dispensing ice pieces. The dispensing assembly may include a water assembly that may include a water chute disposed adjacent to the ice chute and a water tube positioned within the water chute for dispensing liquid water. The dispensing assembly may include a nozzle gasket assembly removably mounted to a bottom portion of the ice chute and a bottom portion of the water chute. The nozzle gasket assembly may include an ice gasket positioned around the ice chute and a water gasket positioned around the water chute.

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#### Background/Summary

## FIELD OF THE DISCLOSURE

[0001] The present subject matter relates generally to a domestic appliance and more particularly to a dispensing assembly for a domestic appliance.

## BACKGROUND OF THE DISCLOSURE

[0002] Domestic or commercial appliances often include a cabinet that defines one or more chilled chambers for receipt of food articles for storage. Typically, one or more doors are rotatably hinged to the cabinet to permit selective access to food items stored in the chilled chamber. Further, domestic appliances commonly include dispensing assemblies mounted to one of the doors of the domestic appliance. The dispensing assembly may be provided for delivering or dispensing ice pieces or liquid water, for instance, to a user of the domestic appliance.

[0003] However, conventional dispensing assemblies can experience a variety of cleanliness related issues. For example, surfaces of an ice chute or water tube of the dispensing assembly may be susceptible to fungus or mineral build up (e.g., scaling) caused by the water that may pass therethrough. Cleaning the dispensing assembly at these areas may be uncomfortable or awkward for a user due to the location. In addition, the build up of fungus or minerals at these areas may not be aesthetically appealing to a user of the domestic appliance.

[0004] Accordingly, a dispensing assembly for a domestic 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 domestic appliance is provided. The domestic appliance may include a housing defining a chamber. The domestic appliance may further include a door mounted to the housing for selectively accessing the chamber. The domestic appliance may also include a dispensing assembly. The dispensing assembly may include a dispenser disposed at an exterior of the door. The dispenser may include a dispenser outlet for accessing ice pieces or liquid water. The dispensing assembly may further include an ice chute positioned within the dispenser outlet for dispensing ice pieces. The dispensing assembly may further include a water assembly. The water assembly may include a water chute disposed adjacent to the ice chute and a water tube positioned within the water chute for dispensing liquid water. The dispensing assembly may also include a nozzle gasket assembly removably mounted to a bottom portion of the ice chute and a bottom portion of the water chute. The nozzle gasket assembly may include an ice gasket positioned around the ice chute and a water gasket positioned around the water chute.

[0007] In another exemplary aspect of the present disclosure, a dispensing assembly for a domestic appliance is provided. The dispensing assembly may include a dispenser. The dispenser may include a dispenser outlet for accessing ice pieces or liquid water. The dispensing assembly may also include an ice chute positioned within the dispenser outlet for dispensing ice pieces. The dispensing assembly may further include a water assembly. The water assembly may include a water chute disposed adjacent to the ice chute and a water tube positioned within the water chute for dispensing liquid water. The dispensing assembly may also include a nozzle gasket assembly removably mounted to a bottom portion of the ice chute and a bottom portion of the water chute. The nozzle gasket assembly may include an ice gasket positioned around the ice chute and a water gasket positioned around the water chute. The ice gasket may include an inner ring and an outer ring. The outer ring may be positioned radially around the inner ring. The outer ring may include a resilient snap clip. The resilient snap clip may be snapped onto the bottom portion of the ice chute to secure the ice gasket to the bottom portion of the ice chute.

[0008] In yet another exemplary aspect of the present disclosure, a dispensing assembly for a

domestic appliance is provided. The dispensing assembly may include a dispenser. The dispenser may include a dispenser outlet for accessing ice pieces or liquid water. The dispensing assembly may also include an ice chute positioned within the dispenser outlet for dispensing ice pieces. The dispensing assembly may further include a water assembly. The water assembly may include a water chute disposed adjacent to the ice chute and a water tube positioned within the water chute for dispensing liquid water. The dispensing assembly may also include a nozzle gasket assembly removably mounted to a bottom portion of the ice chute and a bottom portion of the water chute. The nozzle gasket assembly may include an ice gasket positioned around the ice chute and a water gasket positioned around the water chute. The ice gasket may include an inner ring and an outer ring positioned radially around the inner ring. The outer ring may include an inner surface and a tab. The tab may extend inward from the inner surface of the outer ring. The tab may be engaged with the bottom portion of the ice chute to secure the ice gasket to the bottom portion of the ice chute.

[0009] 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.

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## **Description**

### **BRIEF DESCRIPTION OF THE DRAWINGS**

[0010] 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.

[0011] FIG. 1 provides a perspective view of a refrigerator appliance according to one or more exemplary embodiments of the present subject matter.

[0012] FIG. 2 provides a perspective view of the refrigerator appliance of FIG. 1 with doors thereof in an opened position.

[0013] FIG. 3 provides a perspective view of a dispensing assembly according to one or more exemplary embodiments of the present subject matter.

[0014] FIG. 4 provides an exploded view of the dispensing assembly of FIG. 3.

[0015] FIG. 5 provides a perspective view of a nozzle gasket assembly of the dispensing assembly of FIG. 3.

[0016] FIG. 6 provides a cross-sectional view of the dispensing assembly of FIG. 3.

[0017] FIG. 7 provides a perspective view of a nozzle gasket assembly according to one or more exemplary embodiments of the present subject matter.

[0018] FIG. 8 provides a close-up perspective view of a portion of the nozzle gasket assembly of FIG. 7.

[0019] FIG. 9 provides a cross-sectional view of a dispensing assembly according to one or more exemplary embodiments of the present subject matter.

[0020] FIG. 10 provides a perspective view of a nozzle gasket assembly according to one or more exemplary embodiments of the present subject matter.

[0021] FIG. 11 provides a close-up perspective view of a portion of the nozzle gasket assembly of FIG. 10.

[0022] FIG. 12 provides a cross-sectional view of a dispensing assembly according to one or more exemplary embodiments of the present subject matter.

[0023] 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

[0024] 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.

[0025] 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.

[0026] 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, such as, clockwise or counterclockwise, with the vertical direction V).

[0027] 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.

[0028] In some aspects of the present disclosure, a domestic appliance is provided. The domestic appliance may include a dispenser assembly for dispensing ice pieces or water. The exemplary dispenser assembly may advantageously include a nozzle gasket assembly that is removably mountable to a water dispenser or an ice dispenser of the dispenser assembly. As will be appreciated, the nozzle gasket assembly may advantageously prevent or mitigate build-up of, for example, bacteria, fungus, or minerals commonly found in water (e.g., calcium) at the water dispenser or the ice dispenser.

[0029] Turning to the figures, FIGS. **1** and **2** illustrate a perspective view of a domestic appliance **100**. Domestic appliance **100** includes a cabinet or housing **102** that extends between a top **104** and a bottom **106** along a vertical direction V, between a first side **108** and a second side **110** along a lateral direction L, and between a front side **112** and a rear side **114** along a transverse direction T. Each of the vertical direction V, lateral direction L, and transverse direction T are mutually perpendicular to one another.

[0030] Housing **102** defines chilled chambers for receipt of food items for storage. In particular,

housing **102** defines fresh food chamber **122** positioned at or adjacent top **104** of housing **102** and a freezer chamber **124** arranged at or adjacent bottom **106** of housing **102**. As such, domestic appliance **100** is generally referred to as a bottom mount refrigerator. It is recognized, however, that the benefits of the present disclosure apply to any suitable type and style of refrigerator appliance or domestic appliance. For example, the benefits of the present disclosure may apply to a top mount refrigerator appliance, a side-by-side style refrigerator appliance, a standalone water or ice dispensing appliance, etc. Consequently, the description set forth herein is for illustrative purposes only and is not intended to be limiting in any aspect to any particular refrigerator or appliance configuration.

[0031] According to the illustrated embodiment, various storage components are mounted within fresh food chamber **122** to facilitate storage of food items therein as will be understood by those skilled in the art. In particular, the storage components include bins **170**, drawers **172**, and shelves **174** that are mounted within fresh food chamber **122**. Bins **170**, drawers **172**, and shelves **174** are positioned to receive of food items (e.g., beverages or solid food items) and may assist with organizing such food items. As an example, drawers **172** can receive fresh food items (e.g., vegetables, fruits, or cheeses) and increase the useful life of such fresh food items.

[0032] Doors **128** are rotatably hinged to an edge of housing **102** for selectively accessing fresh food chamber **122**. In addition, a freezer door **130** is arranged below doors **128** for selectively accessing freezer chamber **124**. Freezer door **130** is coupled to a freezer drawer (not shown) slidably mounted within freezer chamber **124**. Refrigerator doors **128** and freezer door **130** are shown in the closed configuration in FIG. 1.

[0033] Domestic appliance **100** also includes a dispensing assembly **140** for delivering or dispensing ice or liquid water. Dispensing assembly **140** includes a dispenser **142** positioned on or mounted to an exterior portion of domestic appliance **100**, e.g., on one of doors **128**. Dispenser **142** includes a dispenser outlet **144** for accessing liquid water. An actuating mechanism **146**, shown as a paddle, is mounted below dispenser outlet **144** for operating dispenser **142**. In alternative exemplary embodiments, any suitable actuating mechanism may be used to operate dispenser **142**. For example, dispenser **142** can include a sensor (such as an ultrasonic sensor) or a button rather than the paddle. The display **148** may be provided for controlling the mode of operation. For example, the display **148** may include a plurality of user inputs (not labeled), such as a water dispensing button.

[0034] Dispenser outlet **144** and actuating mechanism **146** are an external part of dispenser **142** and are mounted in a dispenser recess **150**. Dispenser recess **150** is positioned at a predetermined elevation convenient for a user to access water and enabling the user to access water without the need to bend-over and without the need to open doors **128**. In the exemplary embodiment, dispenser recess **150** is positioned at a level that approximates the chest level of a user.

[0035] FIG. 2 provides a perspective view of a door **128** of domestic appliance **100** shown with doors **128** in the open position. As shown, a door liner **132** that is attached (e.g., directly or indirectly) to cabinet **102** may define a sub-compartment, such as an icebox compartment **160** for holding an icemaker or ice-making assembly. For example, at least one door **128** may include the door liner **132** defining icebox compartment **160**. In such embodiments, icebox compartment **160** extends into fresh food chamber **122** when refrigerator door **128** is in the closed position. Although icebox compartment **160** is shown in door **128**, additional or alternative embodiments may include an icebox compartment **160** defined within door **130** or apart from any door (e.g., directly attached to and fixed within cabinet **102**).

[0036] An access door—e.g., icebox door **162**—may be hinged to icebox compartment **160** to selectively cover or permit access to opening of icebox compartment **160**. Icebox door **162** permits selective access to icebox compartment **160**. Any manner of suitable latch **164** is provided with icebox compartment **160** to maintain icebox door **162** in a closed position. As an example, latch **164** may be actuated by a consumer in order to open icebox door **162** for providing access into

icebox compartment **160**. Icebox door **162** can also assist with insulating icebox compartment **160** (e.g., by thermally isolating or insulating icebox compartment **160** from fresh food chamber **122**). Generally, this thermal insulation helps maintain icebox compartment **160** at a temperature below the freezing point of water.

[0037] Referring now to FIGS. **3** through **6**, embodiments of the exemplary dispensing assembly **140** are provided. As described above, the dispensing assembly **140** may include a dispenser **142** disposed at an exterior of a door (e.g., door **128**). In some embodiments, the dispenser **142** includes a dispenser outlet **144** for accessing ice pieces or liquid water. For instance, the dispensing assembly **140** may include an ice chute **141** or a water assembly **143** positioned within the dispenser outlet **144** for dispensing ice pieces or water, respectively. The water assembly **143** may include a water chute **145** disposed adjacent to the ice chute **141** and a water tube **147** positioned within the water chute **145** for dispensing liquid water.

[0038] The water tube **147** may be in flow communication with a water supply **149** to dispense liquid water. The water supply **149** may be in flow communication with a water delivery source (e.g., a municipal water source). The water supply **149** may additionally be in operative communication with the controller **194**. Particularly, the water supply **149** may include a control valve (e.g., a solenoid valve, an isolation valve, etc.) in operative communication with the controller **194**. The control valve of the water supply **149** may be configured to selectively permit a flow of water to the water tube **147**. Thus, when a user of the domestic appliance **100** wishes dispense water from the water assembly **143**, the user may select the desired setting on the display **148** and then actuate the actuating mechanism **146** (e.g., a paddle such as illustrated in FIGS. **3** and **4**) to signal to the controller **194** a request for a flow of water to be delivered to the water tube **147**.

[0039] The ice chute **141** may be in flow communication with the icebox compartment **160**. The ice chute **141** may be in operative communication with the controller **194**. Particularly, the ice chute **141** may include a control valve (e.g., a solenoid valve) in operative communication with the controller **194**. The control valve of the ice chute may be configured to selectively permit the dispensing of ice pieces (e.g., stored within the icebox compartment **160**) to the ice chute **141**. Thus, when a user of the domestic appliance **100** wishes to dispense ice pieces from the ice chute **141**, the user may select the desired setting on the display **148** and then actuate the actuating mechanism **146** (e.g., a paddle such as illustrated in FIGS. **3** and **4**) to signal to the controller **194** a request for ice pieces to be dispensed from the ice chute **141**.

[0040] In some embodiments, the dispensing assembly **140** also includes a bracket display **151**. The bracket display **151** may be disposed at the dispenser outlet **144**. In some embodiments, the bracket display **151** is the top wall of the dispenser **142**. For instance, the bracket display **151** may define a chute slot **153** for receiving the ice chute **141** or the water chute **145** therethrough. As illustrated in FIG. **4**, at least a portion of the ice chute **141** or at least a portion of the water chute **145** may be positioned below the bracket display **151**. As described herein, these portions of the ice chute **141** or the water chute **145** may generally be referred to as a bottom portion **155** of the ice chute **141** and a bottom portion **157** of the water chute **145**, respectively.

[0041] In some embodiments, the dispensing assembly **140** includes a nozzle gasket assembly **200** removably mounted to the bottom portion **155** of the ice chute **141** or the bottom portion **157** of the water chute **145**. The nozzle gasket assembly **200** may include an ice gasket **202** or a water gasket **204**. The ice gasket **202** may generally include an inner ring **206**, an outer ring **208**, or a plurality of shelves **210**. The inner ring **206** may include an inner surface **212** and an outer surface **214**. The outer surface **214** of the inner ring **206** may be positioned radially around the inner surface **212**. The inner surface **212** may define an ice opening **216** in flow communication with the ice chute **141**. The outer ring **208** of the ice gasket **202** may be positioned radially around the inner ring **206**. The outer ring **208** of the ice gasket **202** may include an inner surface **218** and an outer surface **220**. The outer surface **220** of the outer ring **208** may be positioned radially around the inner surface **218** of the outer ring **208**.

[0042] The plurality of shelves **210** each may be extended between the outer surface **214** of the inner ring **206** and the inner surface **218** of the outer ring **208**. Each shelf **210** of the plurality of shelves **210** may be spaced circumferentially around the ice gasket **202**. The bottom portion **155** of the ice chute **141** may be disposed between the outer surface **214** of the inner ring **206** and the inner surface **218** of the outer ring **208**. The bottom portion **155** of the ice chute **141** may be interfaced with the plurality of shelves **210**.

[0043] The water gasket **204** may be positioned around the water chute **145**. The water gasket **204** may include an outer circumferential wall **222**. The outer circumferential wall **222** may be extended from the outer ring **208** of the ice gasket **202**. The outer circumferential wall **222** and the outer ring **208** of the ice gasket **202** may define a water opening **224** for receiving the water tube **147**. Additionally or alternatively, the water gasket **204** may include a water guard **226** positioned within the outer circumferential wall **222** of the water gasket **204**, wherein the water guard **226** defines a water tube housing **228**. A bottom portion of the water tube **147** may be positioned within the water tube housing **228** of the water guard **226**. In some embodiments, the outer ring **208** of the nozzle gasket assembly **200** defines a cutout **229**. The cutout **229** may be defined opposite of the water gasket **204** relative to the outer ring **208**. The cutout **229** may allow the nozzle gasket assembly **200** to set flush against the actuating mechanism **146**.

[0044] During installation of the nozzle gasket assembly **200**, the nozzle gasket assembly **200** may be pressed onto the bottom portion **155** of the ice chute **141**. The nozzle gasket assembly **200** may be secured via a friction fit formed between the nozzle gasket assembly **200** and the bottom portion **155** of the ice chute or the bottom portion **157** of the water chute **145**. The nozzle gasket assembly **200** may advantageously be removable from the bottom portion **155** of the ice chute **141** and the bottom portion **157** of the water chute **145** (e.g., for cleaning). In this regard, the nozzle gasket assembly **200** may advantageously aid in reducing or minimizing fungus growth at the ice chute **141** or the water assembly **143**.

[0045] Optionally, the nozzle gasket assembly **200** may be constructed from an antimicrobial additive to help further reduce or minimize the risk of undesirable fungus growth. For instance, the nozzle gasket assembly **200** may include a substrate formed from or include an antimicrobial additive (e.g., one or more of Dioctyl dimethyl ammonium chloride, Didecyl ammonium chloride, or Quaternium n-Alkyl dimethylbenzyl ammonium chloride) to provide an antimicrobial surface (e.g., for a surface that may contact ice or water such as but not limited to the inner ring **206**, the outer ring **208**, or the outer circumferential wall **222**) to inhibit growth or propagation of bacterial growth on the nozzle gasket assembly **200**. As should be appreciated, growth or propagation of bacterial growth may occur when fluid (e.g., liquid water) is spilled or splattered from the ice chute **141** or the water chute **145**.

[0046] Additionally or alternatively, the nozzle gasket assembly **200** may include a substrate formed from or coated with a hydrophobic coating (e.g., one or more of fluorinated ethylene propylene, Polytetrafluoroethylene, etc.) to provide a hydrophobic surface (e.g., for a surface that may contact ice or water such as but not limited to the inner ring **206**, the outer ring **208**, or the outer circumferential wall **222**) to reduce or minimize scale build up (e.g., that may be caused by minerals within water) at, or around, the ice chute **141** or the water assembly **143**.

[0047] Referring now to FIGS. 7 through 9, embodiments of a nozzle gasket assembly **300** are provided. Except as otherwise indicated, the exemplary nozzle gasket assembly **300** of FIGS. 7 through 9 may be configured in substantially the same manner as the exemplary nozzle gasket assembly **200** of FIGS. 3 through 6, and accordingly, the same or similar numbers may refer to the same or similar parts.

[0048] For example, the exemplary nozzle gasket assembly **300** illustrated in FIGS. 7 through 9 generally may be disposed at the bottom portion **155** of the ice chute **141** or the bottom portion **157** of the water chute **145**. Further, the exemplary nozzle gasket assembly **300** generally includes an ice gasket **202** and a water gasket **204**. The ice gasket **202** may be positioned around the ice chute

**141.** The ice gasket **202** may generally include an inner ring **206**, an outer ring **208**, and a plurality of shelves **210**. The inner ring **206** may include an inner surface **212** and an outer surface **214**. The outer surface **214** of the inner ring **206** may be positioned radially around the inner surface **212** of the inner ring **206**. The inner surface **212** may define an ice opening **216** in flow communication with the ice chute **141**.

[0049] The water gasket **204** may be positioned around the water chute **145**. The water gasket **204** may include an outer circumferential wall **222**. The outer circumferential wall **222** may be extended from the outer ring **208** of the ice gasket **202**. The outer circumferential wall **222** and the outer ring **208** of the ice gasket **202** may define a water opening **224** for receiving the water tube **147**. Additionally, the water gasket **204** may include a water guard **226** positioned within the outer circumferential wall **222** of the water gasket **204**. The water guard **226** may define a water tube housing **228** positioned below the water opening **224**. A bottom portion of the water tube **147** may be positioned within the water tube housing **228**.

[0050] However, for the embodiments of FIGS. **7** through **9**, the outer ring **208** of the ice gasket **202** now includes one or more resilient snap clips **302**. The one or more resilient snap clips **302** may be disposed at the outer ring **208**. In some such embodiments, each resilient snap clip **302** is spaced apart around the circumference of the outer ring **208**. Each resilient snap clip **302** may include a plurality of teeth **304** (e.g., as illustrated in FIG. **8**). In some embodiments, one or more of the plurality of teeth **304** are formed as a plurality of horizontal grooves disposed at an inner surface **306** of each resilient snap clip **302**.

[0051] During installation of the exemplary nozzle gasket assembly **300**, the nozzle gasket assembly **300** may be pressed onto the bottom portion **155** of the ice chute **141**. The one or more resilient snap clips **302** disposed at the outer ring **208** may be biased outward (e.g., from a natural unbiased position such as illustrated in FIGS. **7** through **9**) as the bottom portion **155** of the ice chute **141** is positioned within the ice gasket **202**. As the bottom portion of the ice chute **141** is moved toward the plurality of shelves **210**, the one or more resilient snap clips **302** may be “snap” or return back to the original unbiased positioned. As illustrated in FIG. **9**, the plurality of teeth **304** may “bite” into (e.g., engage with) the bottom portion **155** of the ice chute **141**. In this regard, the exemplary nozzle gasket assembly **300** may be mounted to the bottom portion **155** of the ice chute **141**.

[0052] Referring now to FIGS. **10** through **12**, embodiments of a nozzle gasket assembly **400** are provided. Except as otherwise indicated, the exemplary nozzle gasket assembly **400** of FIGS. **10** through **12** may be configured in substantially the same manner as one or more of the exemplary nozzle gasket assemblies **200**, **300** of FIGS. **3** through **9**, and accordingly, the same or similar numbers may refer to the same or similar parts.

[0053] For example, the exemplary nozzle gasket assembly illustrated in FIGS. **10** through **12** generally may be disposed at the bottom portion **155** of the ice chute **141** or the bottom portion **157** of the water chute **145**. Further, the exemplary nozzle gasket assembly **400** generally includes an ice gasket **202** and a water gasket **204**. The ice gasket **202** may be positioned around the ice chute **141**. The ice gasket **202** may generally include an inner ring **206**, an outer ring **208**, and a plurality of shelves **210**. The inner ring **206** may include an inner surface **212** and an outer surface **214**. The outer surface **214** of the inner ring **206** may be positioned radially around the inner surface **212** of the inner ring **206**. The inner surface **212** may define an ice opening **216** in flow communication with the ice chute **141**.

[0054] The water gasket **204** may be positioned around the water chute **145**. The water gasket **204** may include an outer circumferential wall **222**. The outer circumferential wall **222** may be extended from the outer ring **208** of the ice gasket **202**. The outer circumferential wall **222** and the outer ring **208** of the ice gasket **202** may define a water opening **224** for receiving the water tube **147**. Additionally, the water gasket **204** may include a water guard **226** positioned within the outer circumferential wall **222** of the water gasket **204**. The water guard **226** may define a water tube



housing 228. A bottom portion of the water tube 147 may be positioned within the water tube housing 228.

[0055] However, for the embodiments of FIGS. 10 through 12, the outer ring 208 of the ice gasket 202 now includes one or more tabs 402. The one or more tabs 402 may each be extended inward from an inner surface 212 of the outer ring 208 (e.g., toward the inner ring 206). The one or more tabs 402 may each include a tapered body 404. The tapered body 404 may include a first edge 406 and a second edge 408 that are spaced apart, for instance, along a direction parallel to an axial direction of the ice gasket 202. In some embodiments, the first edge 406 sits flush with the inner surface 212 of the outer ring 208 and the second edge 408 is protruded a predetermined distance from the inner surface 212. Thus, the taper of each tab 402 defined of the tapered body 404 may generally be defined by the predetermined distance of the second edge 408.

[0056] During installation of the exemplary nozzle gasket assembly 400, the nozzle gasket assembly 400 may be pressed onto the bottom portion 155 of the ice chute 141. The one or more tabs 402 disposed at the outer ring 208 may be capable of securing the nozzle gasket assembly 400 to the bottom portion 155 of the ice chute 141 is positioned within the ice gasket 202. For instance, as the bottom portion of the ice chute 141 is moved toward the plurality of shelves 210, the one or more tabs 402 may engage with the bottom portion 155 of the ice chute 141. Particularly, the second edge 408 of the tapered body 404 may engage with the bottom portion 155 of the ice chute 141 (see e.g., FIG. 12) to secure the nozzle gasket assembly to the bottom portion 155 of the ice chute 141.

[0057] 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.

## Claims

1. A domestic appliance comprising: a housing defining a chamber; a door mounted to the housing for selectively accessing the chamber; and a dispensing assembly comprising: a dispenser disposed at an exterior of the door, the dispenser comprising a dispenser outlet for accessing ice pieces or liquid water; an ice chute positioned within the dispenser outlet for dispensing ice pieces; a water assembly comprising a water chute disposed adjacent to the ice chute and a water tube positioned within the water chute for dispensing liquid water; and a nozzle gasket assembly removably mounted to a bottom portion of the ice chute and a bottom portion of the water chute, the nozzle gasket assembly comprising an ice gasket positioned around the ice chute and a water gasket positioned around the water chute.
2. The domestic appliance of claim 1, wherein the ice gasket comprises an inner ring, wherein the inner ring comprises an inner surface and an outer surface positioned radially around the inner surface, and wherein the inner surface defines an ice opening in flow communication with the ice chute.
3. The domestic appliance of claim 2, wherein the ice gasket further comprises an outer ring and a plurality of shelves, wherein the outer ring is positioned radially around the inner ring, wherein the outer ring comprises an inner surface and an outer surface, wherein the outer surface of the outer ring is positioned radially around the inner surface of the outer ring, and wherein the plurality of shelves are each extended between the outer surface of the inner ring and the inner surface of the outer ring.

4. The domestic appliance of claim 3, wherein the bottom portion of the ice chute is disposed between the outer surface of the inner ring and the inner surface of the outer ring, and wherein the bottom portion of the ice chute is interfaced with the plurality of shelves.
5. The domestic appliance of claim 3, wherein the water gasket comprises an outer circumferential wall extended from the outer ring of the ice gasket, wherein the outer circumferential wall and the outer ring of the ice gasket define a water opening for receiving the water tube.
6. The domestic appliance of claim 5, wherein the water gasket further comprises a water guard positioned within the outer circumferential wall of the water gasket, wherein the water guard defines a water tube housing, and wherein the water tube is positioned, at least in part, within the water tube housing.
7. The domestic appliance of claim 1, wherein the dispensing assembly further comprising a bracket display, wherein the bracket display is disposed at the dispenser outlet, wherein the bracket display defines a chute slot for receiving the ice chute and the water chute, and wherein the nozzle gasket assembly is removable mounted below the bracket display.
8. The domestic appliance of claim 1, further comprising: an icebox compartment positioned within the door for holding ice pieces, wherein the ice chute is in flow communication with the icebox compartment.
9. The domestic appliance of claim 1, further comprising: a water supply line for delivering liquid water, wherein the water tube is in flow communication with the water supply line to dispense liquid water.
10. The domestic appliance of claim 1, wherein the nozzle gasket assembly comprises a substrate comprising one or more of Dioctyl dimethyl ammonium chloride, Didecyl ammonium chloride, or Quaternium, n-Alkyl dimethylbenzyl ammonium chloride.
11. A dispensing assembly for a domestic appliance, the dispenser assembly comprising: a dispenser comprising a dispenser outlet for accessing ice pieces or liquid water; an ice chute positioned within the dispenser outlet for dispensing ice pieces; a water assembly comprising a water chute disposed adjacent to the ice chute and a water tube positioned within the water chute for dispensing liquid water; and a nozzle gasket assembly removably mounted to a bottom portion of the ice chute and a bottom portion of the water chute, the nozzle gasket assembly comprising an ice gasket positioned around the ice chute and a water gasket positioned around the water chute, the ice gasket comprising an inner ring and an outer ring, the outer ring being positioned radially around the inner ring, the outer ring comprising a resilient snap clip, wherein the resilient snap clip is snapped onto the bottom portion of the ice chute to secure the ice gasket to the bottom portion of the ice chute.
12. The dispensing assembly of claim 11, wherein the resilient snap clip comprises a plurality of teeth, wherein the plurality of teeth bite into the bottom portion of the ice chute to secure the ice gasket to the bottom portion of the ice chute.
13. The dispensing assembly of claim 11, wherein the resilient snap clip is a plurality of resilient snap clips spaced apart around a circumference of the outer ring.
14. The dispensing assembly of claim 11, further comprising a bracket display, wherein the bracket display is disposed at the dispenser outlet, wherein the bracket display defines a chute slot for receiving the ice chute and the water chute, and wherein the nozzle gasket assembly is removable mounted below the bracket display.
15. The dispensing assembly of claim 11, wherein the water gasket comprises an outer circumferential wall and a water guard, wherein the outer circumferential wall is extended from the outer ring, wherein the water guard is positioned within the outer circumferential wall, wherein the water guard defines a water opening, and wherein the water tube is positioned, at least in part, within the water opening.
16. A dispensing assembly for a domestic appliance, the dispenser assembly comprising: a dispenser comprising a dispenser outlet for accessing ice pieces or liquid water; an ice chute

positioned within the dispenser outlet for dispensing ice pieces; a water assembly comprising a water chute disposed adjacent to the ice chute and a water tube positioned within the water chute for dispensing liquid water; and a nozzle gasket assembly removably mounted to a bottom portion of the ice chute and a bottom portion of the water chute, the nozzle gasket assembly comprising an ice gasket positioned around the ice chute and a water gasket positioned around the water chute, the ice gasket comprising an inner ring and an outer ring positioned radially around the inner ring, the outer ring comprising an inner surface and a tab, the tab extending inward from the inner surface of the outer ring, wherein the tab is engaged with the bottom portion of the ice chute to secure the ice gasket to the bottom portion of the ice chute.

**17.** The dispensing assembly of claim 16, wherein the tab comprises a tapered body, wherein the tapered body comprises a first edge and a second edge, wherein the first edge is flush with the inner surface of the outer ring, wherein the second edge is extended inward from the inner surface of the outer ring a predetermined distance, and wherein the second edge of the tapered body is engaged with the bottom portion of the ice chute to secure the ice gasket to the bottom portion of the ice chute.

**18.** The dispensing assembly of claim 16, wherein the tab is a plurality of tabs spaced apart around a circumference of the outer ring.

**19.** The dispensing assembly of claim 16, further comprising a bracket display, wherein the bracket display is disposed at the dispenser outlet, wherein the bracket display defines a chute slot for receiving the ice chute and the water chute, and wherein the nozzle gasket assembly is removably mounted below the bracket display.

**20.** The dispensing assembly of claim 16, wherein the water gasket comprises an outer circumferential wall and a water guard, wherein the outer circumferential wall is extended from the outer ring, wherein the water guard is positioned within the outer circumferential wall, wherein the water guard defines a water opening, and wherein the water tube is positioned, at least in part, within the water opening.

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