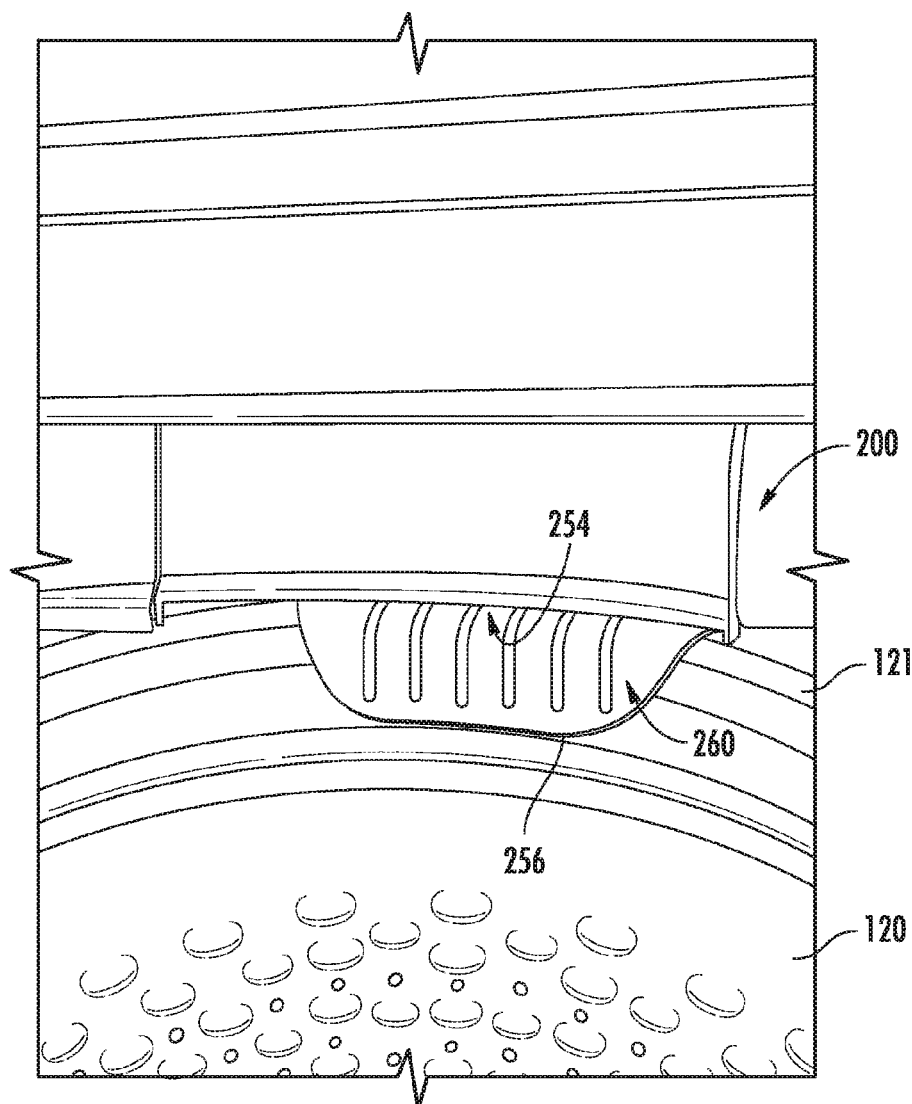




US 20190382942A1

(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2019/0382942 A1**
Roetker (43) **Pub. Date: Dec. 19, 2019**(54) **WASHING MACHINE APPLIANCES HAVING
PRE-TREATMENT AGITATION FEATURES**(52) **U.S. CL.**
CPC **D06F 39/024** (2013.01); **D06F 37/12**
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(US)(21) Appl. No.: **16/006,977**(22) Filed: **Jun. 13, 2018****Publication Classification**(51) **Int. Cl.**
D06F 39/02 (2006.01)(57) **ABSTRACT**

A washing machine appliance having pre-treatment features is provided herein. The washing machine appliance may include a cabinet, a tub positioned within the cabinet, a basket rotatably mounted within the tub to rotate about a rotation axis, a textured agitation panel, and a wash fluid dispenser. The textured agitation panel may extend from the cabinet toward the tub. The textured agitation panel may include an upper surface defining a plurality of elevated ridges. The wash fluid dispenser may be directed at the upper surface of the textured agitation panel. The wash fluid dispenser may be mounted thereabove along a vertical direction. The wash fluid dispenser may define a fluid outlet upstream from the textured agitation panel. The wash fluid dispenser may further define a mixing chamber upstream from the fluid outlet and downstream from a water source to receive a wash additive therein.



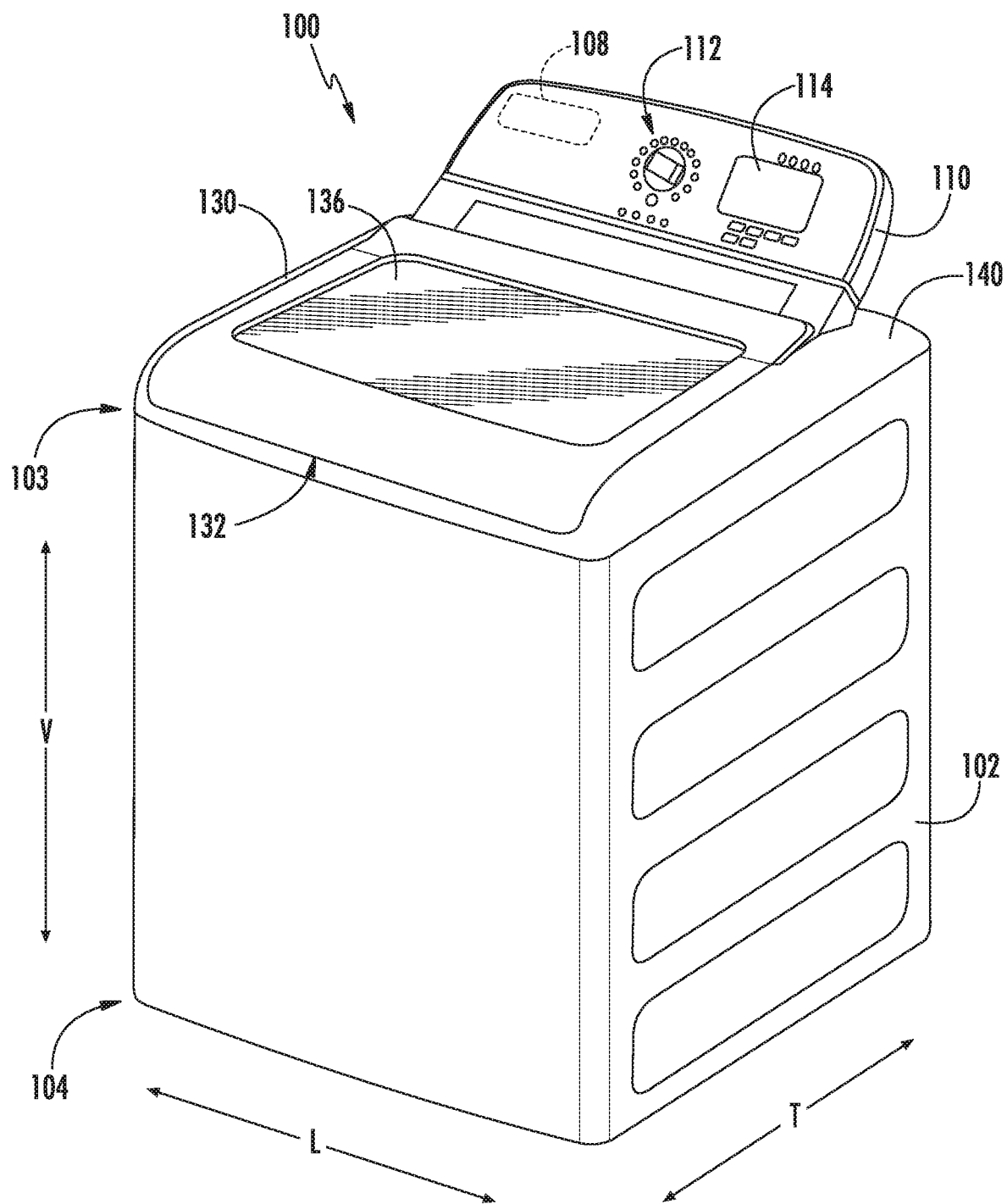


FIG. 1

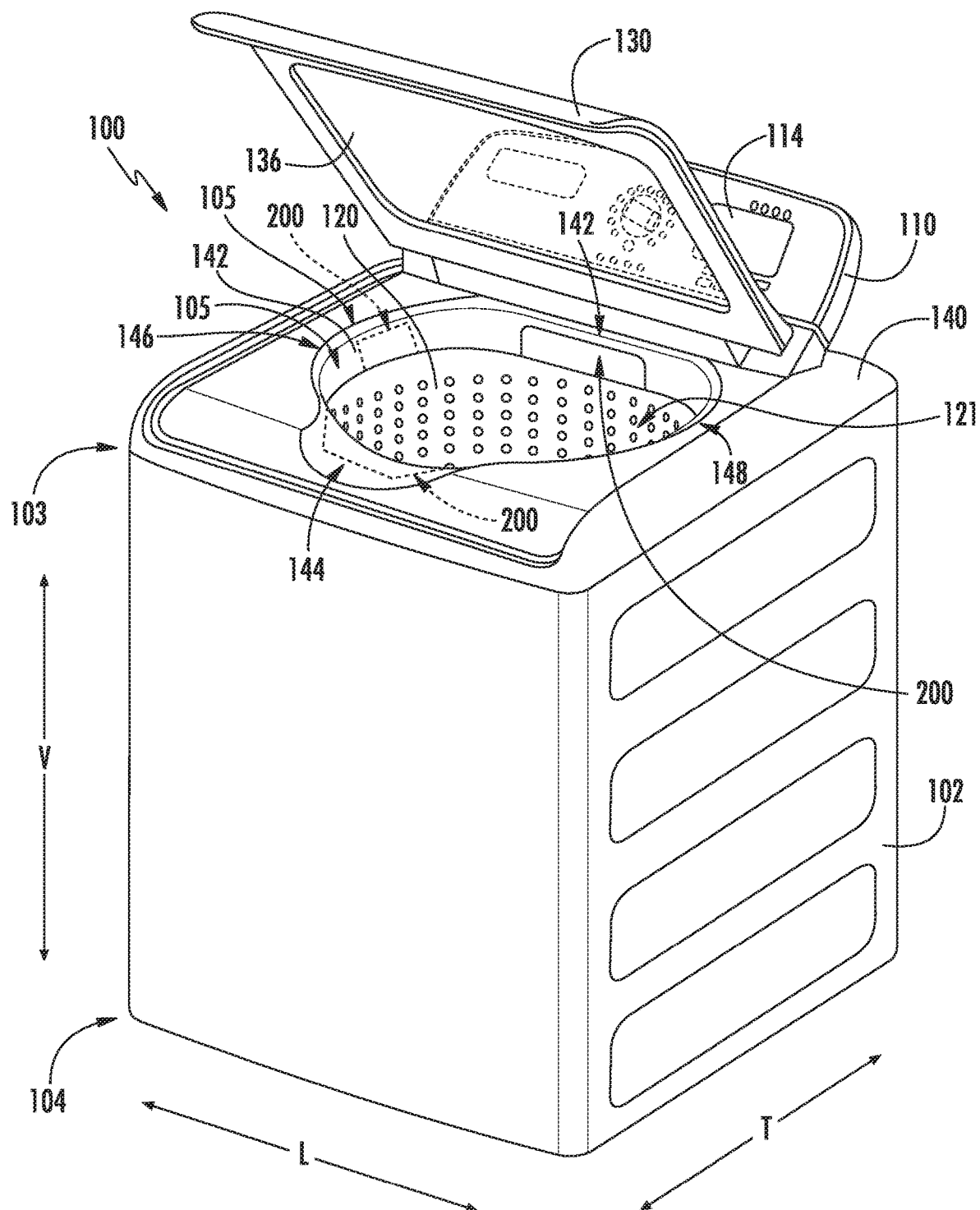


FIG. 2

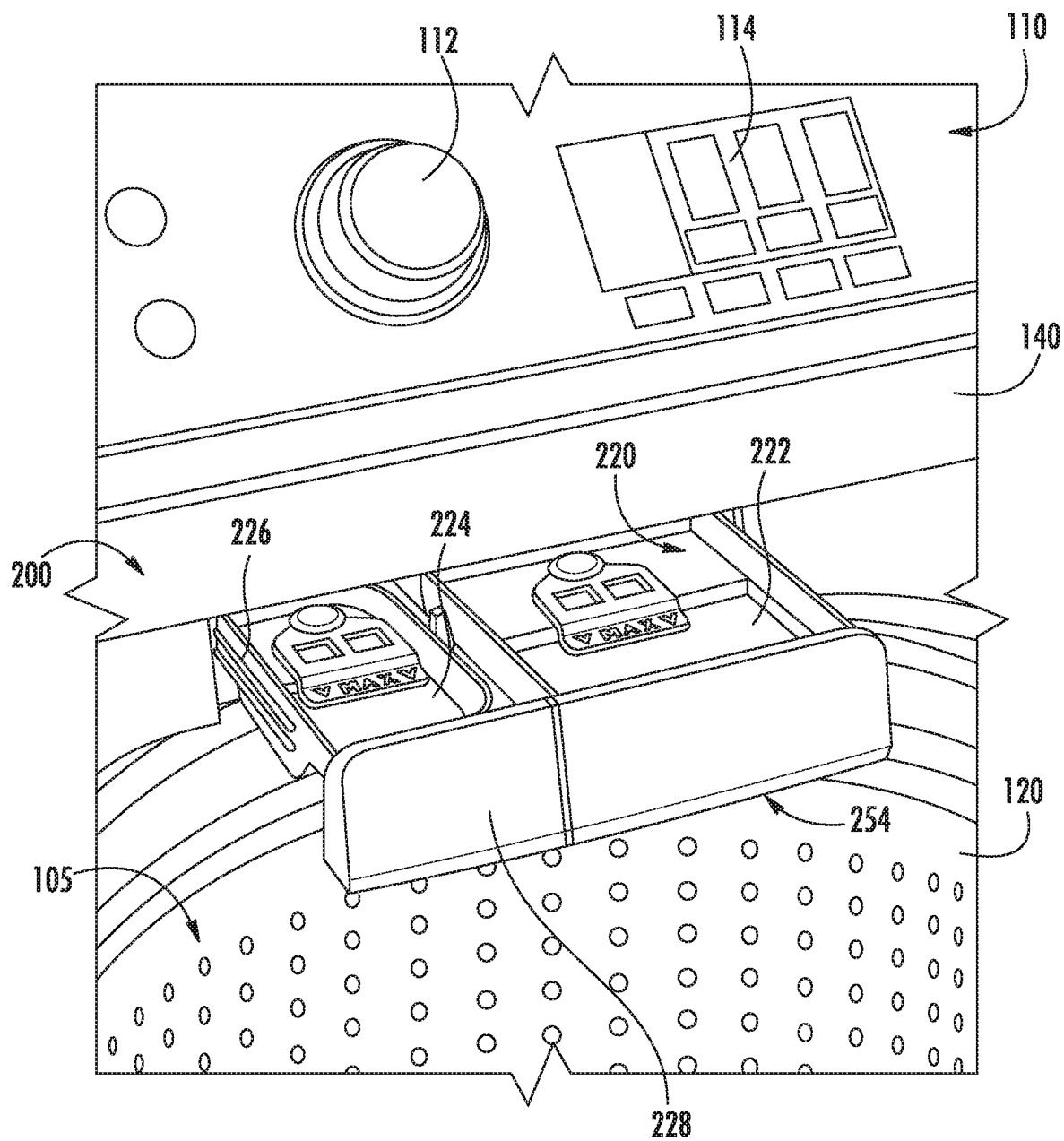


FIG. 3

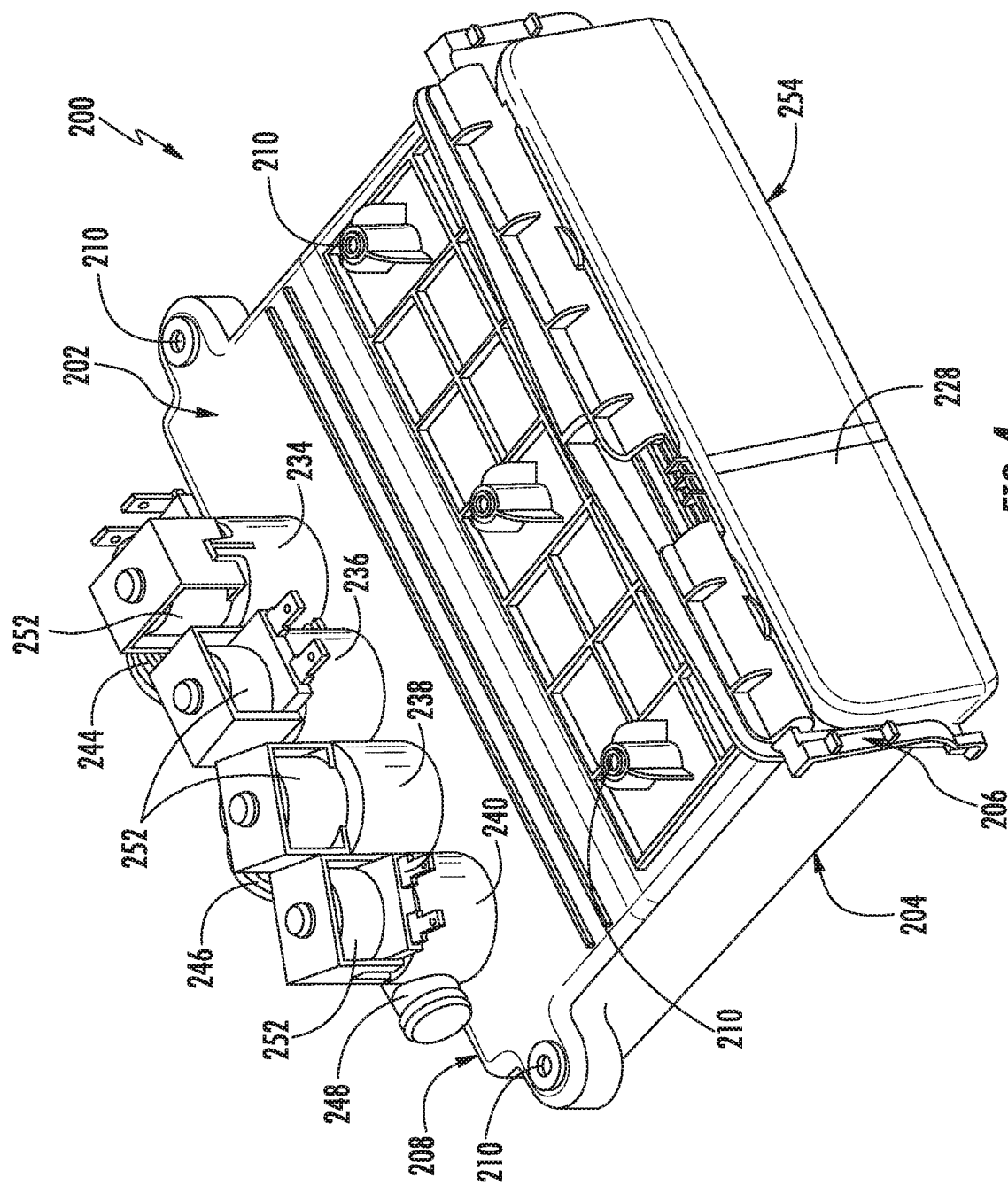


FIG. 4

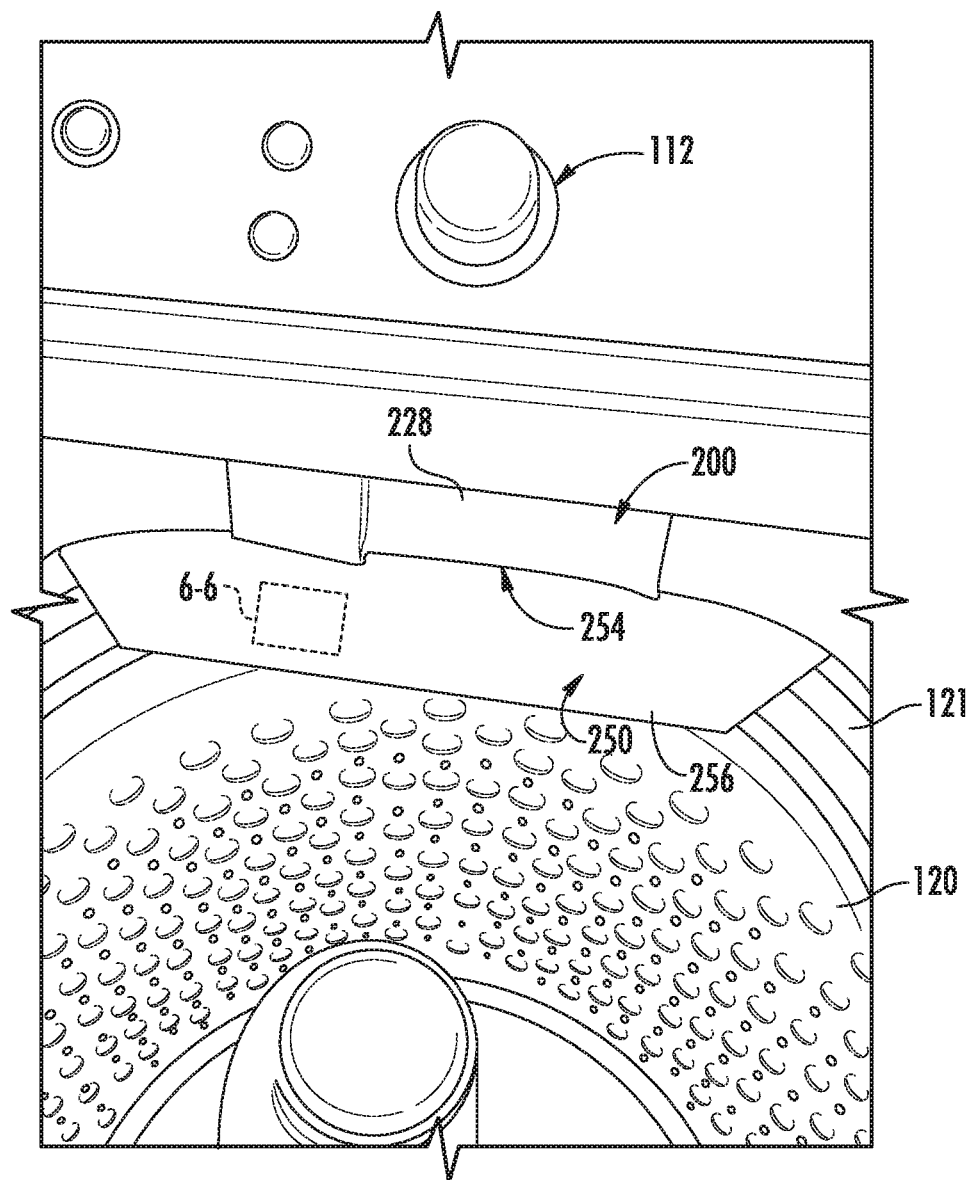


FIG. 5

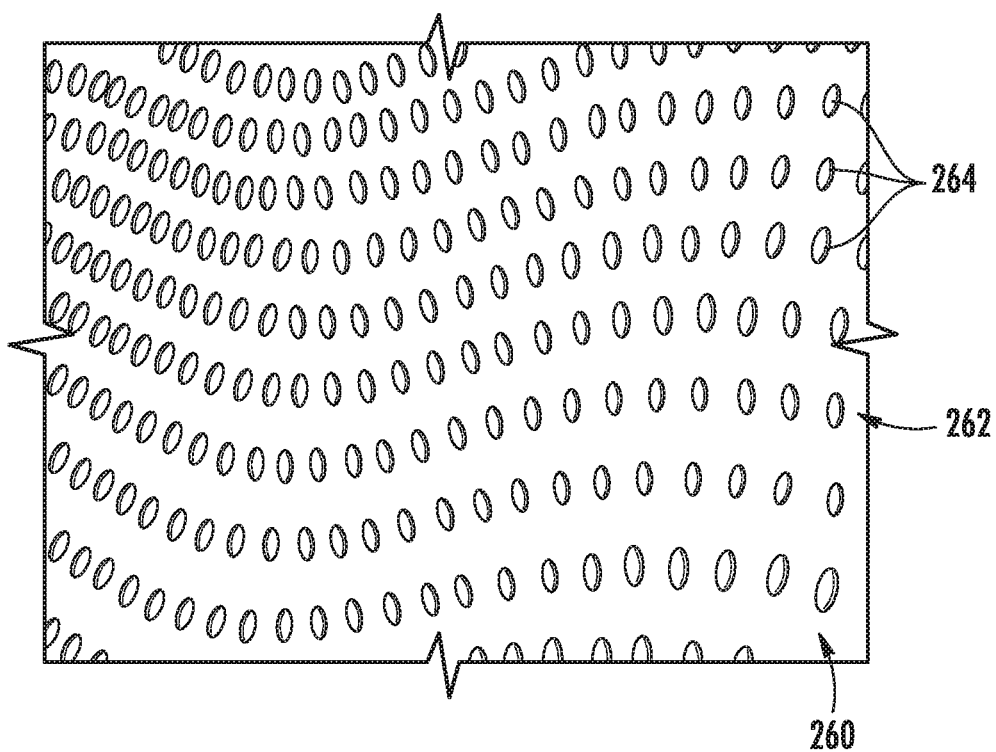


FIG. 6A

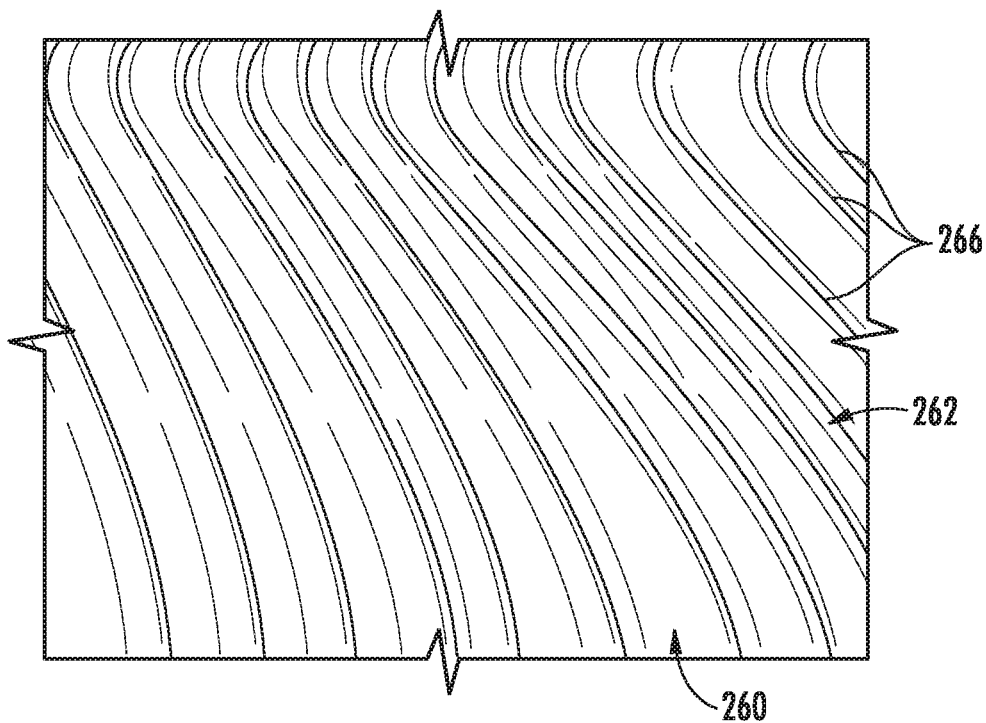
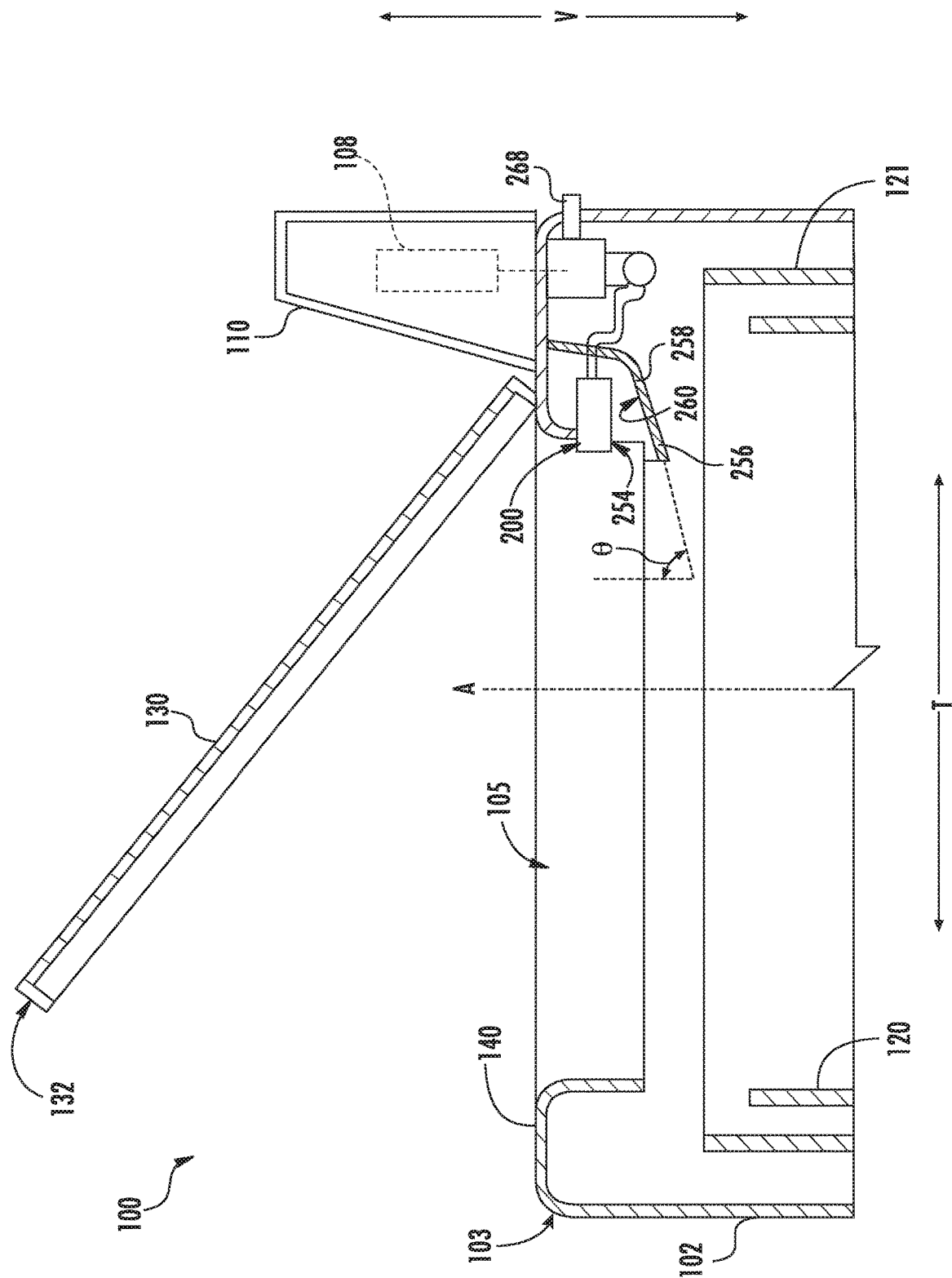


FIG. 6B



76E

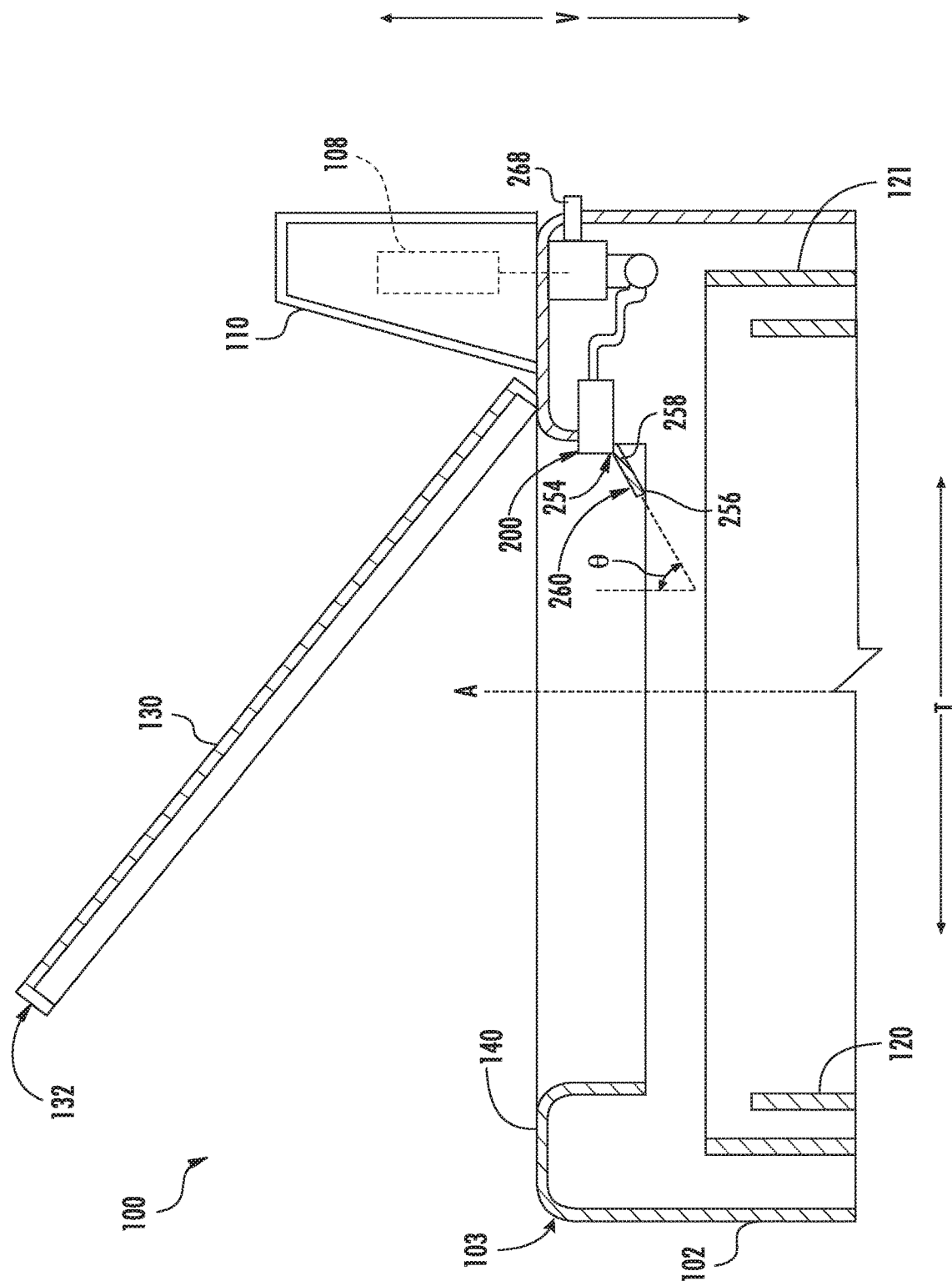


FIG. 8

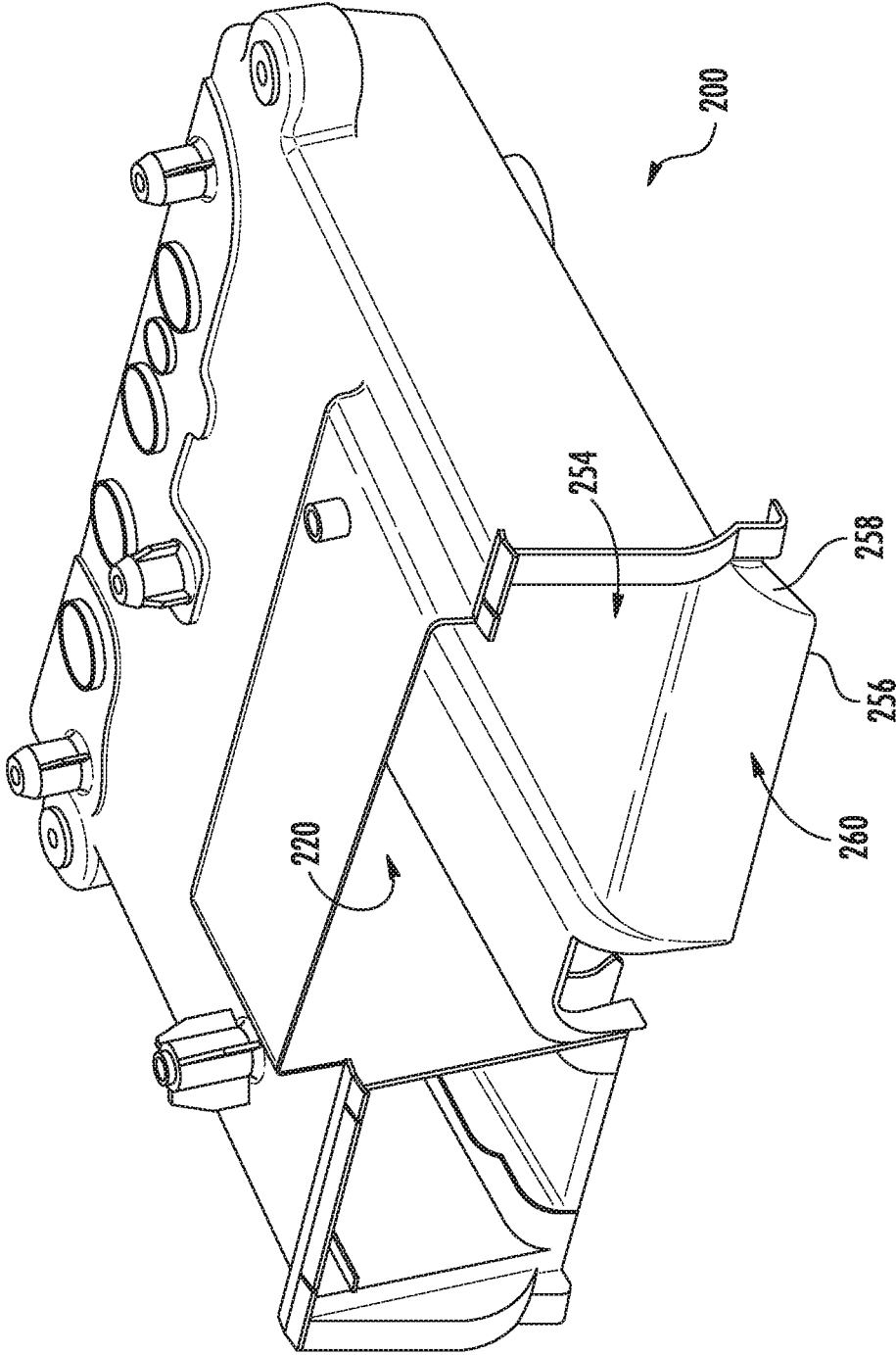


FIG. 9

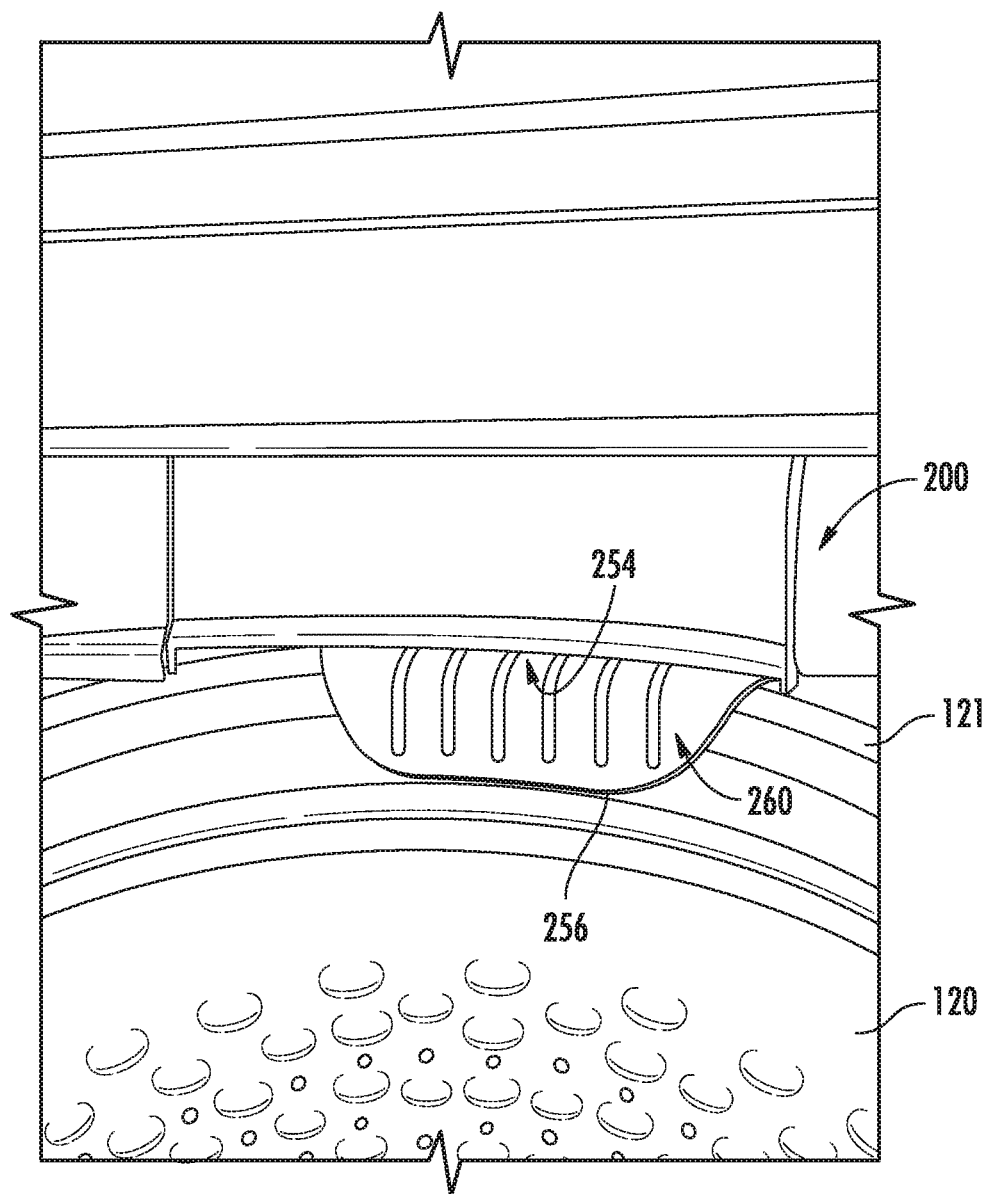


FIG. 10

WASHING MACHINE APPLIANCES HAVING PRE-TREATMENT AGITATION FEATURES

FIELD OF THE INVENTION

[0001] The present subject matter relates generally to washing machine appliances and more particularly to pre-treatment features for washing machine appliances.

BACKGROUND OF THE INVENTION

[0002] Washing machine appliances generally include a tub for containing water or wash fluid (e.g., water and detergent, bleach, or other wash additives). A basket is rotatably mounted within the tub and defines a wash chamber for receipt of articles for washing. During normal operation of such washing machine appliances, wash fluid is directed into the tub and onto articles within the wash chamber of the basket. The basket or an agitation element can rotate at various speeds to agitate articles within the wash chamber, to wring wash fluid from articles within the wash chamber, etc.

[0003] In certain situations, a user may wish to treat certain laundry articles before or after washing them in the washing machine appliance. For instance, a user may wish to spot treat a stain on a laundry article. In many conventional washing machine appliances, there is not an adequate surface or component on which to perform pretreat activities. In order to pretreat (e.g., stains) on such articles, users have had to transport the articles to another location away from the washing machine appliance, such as to a kitchen sink, or have had to use a separate spot treating device to treat their laundry articles. However, transporting the soiled laundry articles to a different location or using a separate spot treating device to spot treat articles may be an inconvenience to users. Moreover, it is likely that any feature or surface used to treat an article will need to be separately cleaned later (e.g., to prevent stains or mildew from accumulating on the feature or surface).

[0004] Accordingly, a washing machine appliance that includes spot treating features that address one or more of the noted challenges would be desirable. In particular, it would be advantageous if a spot treating feature was easily and regularly cleaned in the regular course of use.

BRIEF DESCRIPTION OF THE INVENTION

[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 washing machine appliance is provided. The washing machine appliance may include a cabinet, a tub positioned within the cabinet, a textured agitation panel, and a wash fluid dispenser. The textured agitation panel may extend from the cabinet toward the tub. The wash fluid dispenser may be directed at the textured agitation panel. The wash fluid dispenser may be mounted thereabove along the vertical direction to flow wash fluid across the textured agitation panel.

[0007] In another exemplary aspect of the present disclosure, a washing machine appliance is provided. The washing machine appliance may include a cabinet, a tub positioned within the cabinet, a basket rotatably mounted within the tub to rotate about a rotation axis, a textured agitation panel, and

a wash fluid dispenser. The textured agitation panel may extend from the cabinet toward the tub. The textured agitation panel may include an upper surface defining a plurality of elevated ridges. The wash fluid dispenser may be directed at the upper surface of the textured agitation panel. The wash fluid dispenser may be mounted thereabove along a vertical direction. The wash fluid dispenser may define a fluid outlet upstream from the textured agitation panel. The wash fluid dispenser may further define a mixing chamber upstream from the fluid outlet and downstream from a water source to receive a wash additive therein.

[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 perspective view of a washing machine appliance according to exemplary embodiments of the present disclosure with a door of the washing machine appliance shown in a closed position.

[0011] FIG. 2 provides a perspective view of the exemplary washing machine appliance of FIG. 1 with the door shown in an open position.

[0012] FIG. 3 provides a front, perspective view of a fluid dispenser within a washing machine appliance according to exemplary embodiments of the present disclosure.

[0013] FIG. 4 provides a front, perspective view of the exemplary fluid dispenser of FIG. 3.

[0014] FIG. 5 provides a top, perspective view of a portion of a washing machine appliance, including a textured agitation panel, according to exemplary embodiments of the present disclosure.

[0015] FIG. 6A provides a magnified perspective of an upper surface of the textured agitation panel at the region 6-6 of FIG. 5 according to some exemplary embodiments of the present disclosure.

[0016] FIG. 6B provides a magnified perspective of an upper surface of the textured agitation panel at the region 6-6 of FIG. 5 according to other exemplary embodiments of the present disclosure.

[0017] FIG. 7 provides a cross-sectional, side schematic view of an upper portion of a washing machine appliance according to certain exemplary embodiments of the present disclosure.

[0018] FIG. 8 provides a cross-sectional, side schematic view of an upper portion of a washing machine appliance according to further exemplary embodiments of the present disclosure.

[0019] FIG. 9 provides a front, perspective view of a portion of a fluid dispenser according to exemplary embodiments of the present disclosure.

[0020] FIG. 10 provides a top, perspective view of a portion of a washing machine appliance, including a textured agitation panel, according to exemplary embodiments of the present disclosure.

DETAILED DESCRIPTION

[0021] Reference now will be made in detail to embodiments of the invention, one or more examples of which are illustrated in the drawings. Each example is provided by way of explanation of the invention, not limitation of the invention. In fact, it will be apparent to those skilled in the art that various modifications and variations can be made in the present invention without departing from the scope or spirit of the invention. For instance, features illustrated or described as part of one embodiment can be used with another embodiment to yield a still further embodiment. Thus, it is intended that the present invention covers such modifications and variations as come within the scope of the appended claims and their equivalents.

[0022] It is noted that, for the purposes of the present disclosure, 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 terms “upstream” and “downstream” refer to the relative flow direction with respect to fluid flow in a fluid pathway. For example, “upstream” refers to the flow direction from which the fluid flows, and “downstream” refers to the flow direction to which the fluid flows.

[0023] Turning now to the figures, FIGS. 1 and 2 illustrate an exemplary embodiment of a vertical axis washing machine appliance 100. In FIG. 1, a lid or door 130 is shown in a closed position. In FIG. 2, door 130 is shown in an open position. Washing machine 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.

[0024] While described in the context of a specific embodiment of vertical axis washing machine appliance 100, using the teachings disclosed herein it will be understood that vertical axis washing machine appliance 100 is provided by way of example only. Other washing machine appliances having different configurations, different appearances, or different features may also be utilized with the present subject matter as well.

[0025] As shown, washing machine appliance 100 has a cabinet 102 that extends between a top portion 103 and a bottom portion 104 along the vertical direction V. A wash basket 120 (FIG. 2) is rotatably mounted within cabinet 102. A motor (not shown) is in mechanical communication with wash basket 120 to selectively rotate wash basket 120 about a rotation axis A (FIG. 7) (e.g., during an agitation or a rinse cycle of washing machine appliance 100). In some embodiments, the rotation axis A is parallel to the vertical direction. Wash basket 120 is received within a wash tub or wash chamber 121 (FIG. 2) and is configured for receipt of articles for washing. The wash tub 121 holds wash and rinse fluids for agitation in wash basket 120 within wash tub 121. An agitator or impeller (not shown) may extend into wash basket 120 and may also be in mechanical communication with the motor. In some such embodiments, the impeller assists agitation of articles disposed within wash basket 120 during operation of washing machine appliance 100.

[0026] In some embodiments, cabinet 102 of washing machine appliance 100 has a top panel 140. Top panel 140 defines an opening 105 that permits user access to wash basket 120 of wash tub 121. Door 130, rotatably mounted to top panel 140, permits selective access to opening 105; in particular, door 130 selectively rotates between the closed

position shown in FIG. 1 and the open position shown in FIG. 2. In the closed position, door 130 inhibits or otherwise restricts access to wash basket 120. Conversely, in the open position, a user is permitted access wash basket 120 through the opening 105 of top panel 140. In optional embodiments, a window 136 in door 130 permits viewing of wash basket 120 when door 130 is in the closed position (e.g., during operation of washing machine appliance 100). Door 130 may also include a handle 132 that, for instance, a user may pull or lift when opening and closing door 130. Further, although door 130 is illustrated as mounted to top panel 140, alternatively, door 130 may be mounted to cabinet 102 or any other suitable support.

[0027] In certain embodiments, a control panel 110 with at least one input selector 112 (FIG. 1) extends from top panel 140. Control panel 110 and input selector 112 collectively may form a user interface input for operator selection of machine cycles and features. A display 114 of control panel 110 indicates selected features, operation mode, a count-down timer, or other items of interest to appliance users regarding operation.

[0028] In exemplary embodiments, operation of washing machine appliance 100 is controlled by a controller or processing device 108 that is operatively coupled to control panel 110 for user manipulation to select washing machine cycles and features. In response to user manipulation of control panel 110, controller 108 operates the various components of washing machine appliance 100 to execute selected machine cycles and features.

[0029] Controller 108 may include a memory (e.g., non-transitive media) and microprocessor, such as a general or special purpose microprocessor operable to execute programming instructions or micro-control code associated with a cleaning cycle. The memory may represent random access memory such as DRAM, or read only memory such as ROM 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 108 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. Control panel 110 and other components of washing machine appliance 100 may be in communication with controller 108 via one or more signal lines or shared communication busses.

[0030] During operation of washing machine appliance 100, laundry items are loaded into wash basket 120 through opening 105, and a washing operation is initiated through operator manipulation of input selectors 112. Wash basket 120 is filled with a volume of liquid, such as water and detergent or other fluid additives, via fluid dispenser 200. One or more valves can be controlled by washing machine appliance 100 to provide for filling wash basket 120 to the appropriate level for the amount of articles being washed or rinsed. By way of example for certain wash modes or operations, once wash basket 120 is properly filled with fluid, the contents of wash basket 120 can be agitated (e.g., with an impeller as discussed previously) for washing of laundry items in wash basket 120.

[0031] After the agitation phase of the wash cycle is completed, wash basket 120 can be drained. Laundry articles

can then be rinsed by again adding fluid (e.g., water) to wash basket 120 depending on the specifics of the cleaning cycle or washing operation selected by a user. The impeller may again provide agitation within wash basket 120. One or more spin cycles also may be used. In particular, a spin cycle may be applied after the wash cycle or after the rinse cycle to wring wash fluid from the articles being washed. During a spin cycle, wash basket 120 is rotated at relatively high speeds. After articles disposed in wash basket 120 are cleaned or washed, the user can remove the articles from wash basket 120 (e.g., by reaching into wash basket 120 through opening 105).

[0032] Referring now generally to FIGS. 2 through 4, fluid dispenser 200 will be described in more detail. Although the discussion below refers to fluid dispenser 200, one skilled in the art will appreciate that the features and configurations described may be used for other fluid dispensers in other washing machine appliances as well. For example, fluid dispenser 200 (e.g., an additional or alternative fluid dispenser 200) may be positioned elsewhere on cabinet 102, as illustrated in FIG. 2. Additionally or alternatively, fluid dispenser 200 may have a different shape or chamber configuration and may dispense water, detergent, or other additives. Other variations and modifications of the exemplary embodiment described below are possible, and such variations are contemplated as within the scope of the present disclosure.

[0033] In particular, although illustrated at a rear portion 142 of top panel 140, it is understood that additional or alternative embodiments may include a fluid dispenser 200 at one or more other locations above the tub 121. As an example, a fluid dispenser 200 for directing wash fluid (e.g., water or wash additive) to tub 121 may be positioned at a front portion 144 of top panel 140 (e.g., opposite from the opening 105 and a hinge the door 130 along the transverse direction T). As another example, a fluid dispenser 200 for directing wash fluid (e.g., water or wash additives) to tub 121 may be positioned at a side portion of top panel 140 may be positioned at a first side portion 146 or a second side portion 148 of top panel 140 (e.g., a lateral end of the opening 105).

[0034] As shown, fluid dispenser 200 may be a box or enclosure (e.g., having a substantially rectangular cross-section) that defines a top 202 and a bottom 204 spaced apart along the vertical direction V. Fluid dispenser 200 may also define a front side 206 and a back side 208 spaced apart along the transverse direction T (FIG. 2). As best shown in FIGS. 2 and 3, fluid dispenser 200 may be mounted underneath top panel 140 of cabinet 102 such that front side 206 is visible inside opening 105. More specifically, fluid dispenser 200 may be mounted to top panel 140 using a plurality of mounting features 210 that may, for example, be configured to receive mechanical fasteners. One skilled in the art will appreciate that fluid dispenser 200 may be mounted in other locations and use other mounting means according to alternative exemplary embodiments.

[0035] Fluid dispenser 200 may define a mixing chamber 220 configured to receive one or more additive compartments. For example, according to the illustrated embodiment, mixing chamber 220 may be configured to slidably receive a detergent compartment 222 and a softener compartment 224. Compartments 222, 224 are slidably connected to the mixing chamber 220 using slides 226 and are connected to a front panel 228 of fluid dispenser 200. In this

manner, a user may pull on front panel 228 to slide compartments 222, 224 along the transverse direction T. Once extended, detergent compartment 222 and softener compartment 224 may be conveniently filled with detergent and softener, respectively. Front panel 228 may be then be pushed back into mixing chamber 220 before a wash cycle begins.

[0036] Although the illustrated embodiment shows detergent compartment 222 and softener compartment 224 slidably received in mixing chamber 220 for receiving wash additives, one skilled in the art will appreciate that different configurations are possible in alternative exemplary embodiments. For example, more compartments may be used and the compartments may be accessed by a lid instead of sliding out of mixing chamber 220. Alternatively, mixing chamber 220 may draw wash additives from a separate storage container such that sliding compartments 222, 224 are not needed. Other configurations of mixing chamber 220 and compartments 222, 224 are also possible and within the scope of the present disclosure.

[0037] In some embodiments, fluid dispenser 200 further includes a plurality of valves configured to supply hot and cold water to mixing chamber 220 or directly to wash tub 121. For example, according to the illustrated embodiment, a plurality of apertures may be defined on top 202 of mixing chamber 220 for receiving water. Each aperture may be in fluid communication with a different portion of the mixing chamber 220. A plurality of valve seats may be positioned over top of each of those apertures to receive a valve that controls the flow of water through each aperture.

[0038] For example, a first valve seat 234 may be in fluid communication with a first aperture for providing hot water into detergent compartment 222. A second valve seat 236 may be in fluid communication with a second aperture for providing cold water into detergent compartment 222. A third valve seat 238 may be in fluid communication with a third aperture for providing cold water into softener compartment 224. A fourth valve seat 240 may be in fluid communication with a fourth aperture for providing cold water into mixing chamber 220 or directly into wash tub 121.

[0039] Water inlets may be placed in fluid communication with each of valve seats 234, 236, 238, 240. More specifically, a hot water inlet 244 may be connected to a hot water supply line and a cold water inlet 246 may be connected to a cold water supply line. According to the illustrated embodiments, each water inlet 244, 246 includes a threaded male adapter configured for receiving a threaded female adapter from a conventional water supply line. However, any other suitable manner of fluidly connecting a water supply line and water inlets 244, 246 may be used. For example, each water supply line and water inlets 244, 246 may have copper fittings that may be sweated together to create a permanent connection.

[0040] Notably, hot water inlet 244 is in direct fluid communication with first valve seat 234. However, because washing machine appliance 100 uses cold water for multiple purposes, cold water inlet is in fluid communication with a cold water manifold 248. Cold water manifold 248 may be a cylindrical pipe that extends along the lateral direction from second valve seat 236 to fourth valve seat 240. In this manner, cold water manifold 248 places valve seats 236, 238, 240 in fluid communication with cold water inlet 246.

[0041] Each of valve seats **234**, **236**, **238**, **240** may be configured to receive a water valve **252** for controlling the flow of water through a corresponding aperture into mixing chamber **220**. Water valve **252** may be, for example, a solenoid valve that is electrically connected to controller **108**. However, any other suitable water valve may be used to control the flow of water. Controller **108** may selectively open and close water valves **252** to allow water to flow from hot water inlet **244** through first valve seat **234** and from cold water manifold **248** through one or more of second valve seat **236**, third valve seat **238**, and fourth valve seat **240**.

[0042] Fluid dispenser **200** may further include one or more nozzles for directing wash fluid, such as water or a mixture of water and at least one fluid additive (e.g., detergent, fabric softener, or bleach) into wash tub **121** from fluid dispenser **200**. For example, when second valve seat **236** is open, water may flow from cold water inlet **246** through cold water manifold **248** and second valve seat **236** into detergent compartment **222**. Water may mix with detergent placed in detergent compartment **222** to create wash liquid to be dispensed into wash tub **121**.

[0043] In certain embodiments, nozzle or fluid outlet **254** positioned on the bottom of detergent compartment **222** or on the bottom of mixing chamber **220** to dispense the wash fluid into wash tub **121**. In some embodiments, fluid dispenser **200** includes four nozzles associated with valves seats **234**, **236**, **238**, **240**, respectively. However, it will be understood that different nozzle configurations may be used in additional or alternative exemplary embodiments. For example, one or more nozzles may be positioned on a bottom of mixing chamber **220** near wash tub **121** or directly on wash tub **121**. It is understood that nozzles could be positioned in other locations as well.

[0044] As discussed herein, in some situations, a user may wish to cause the flow of water separate from the flows associated with typical wash cycles. For example, a user may wish to obtain water for use when pretreating articles in a wash basin, as discussed herein. The user may thus utilize a suitable input selector **112** or other dedicated input to cause water to be flowed on-demand and independently of the typical wash cycles of the washing machine appliance **100**.

[0045] Turning now to FIGS. **5** through **10**, various views are provided of a fluid dispenser **200** according to exemplary embodiments of the present disclosure.

[0046] As shown, a textured agitation panel **256** generally extends from the cabinet **102** toward the tub **121**. For instance, textured agitation panel **256** may be positioned between top panel **140** and tub **121**. Textured agitation panel **256** may be positioned at a predetermined location about the opening **105**. When assembled, textured agitation panel **256** may be located below or directly beneath the footprint of the door **130** in the closed position. A user may thus access textured agitation panel **256** (e.g., when the door **130** is in the open position).

[0047] Textured agitation panel **256** includes a substrate **258** and an upper surface **260**. As shown, upper surface **260** generally faces a region above opening **105** or the region defined by wash basket **120**. The user may thus view and access upper surface **260** when the door **130** is in the open position. In some embodiments, substrate **258** and upper surface **260** are mounted at a fixed position within cabinet **102**. However, alternative embodiments may include a hinge or slide (not pictured) to permit selective movement of textured agitation panel **256** between a scrub position (see

FIGS. **5** through **10**) wherein textured agitation panel **256** generally descends toward tub **121** and a recessed position wherein textured agitation panel **256** is pivoted or lifted upward (e.g., toward top panel **140** and away from opening **105**). Thus, in the recessed position, the user may be restricted from using the upper surface **260** of the textured agitation panel **256** and articles within wash basket **120** will be prevented from hitting or scraping textured agitation panel **256**.

[0048] In some embodiments, one or more elevated ridges **262** are defined at upper surface **260**. For instance, a plurality of elevated ridges **262** may be integrally formed (e.g., as a unitary monolithic member) on substrate **258**. Additionally or alternatively, a separable panel fixed to substrate **258** (e.g., via one or more suitable adhesives or mechanical fasteners) may define the elevated ridges **262**.

[0049] When assembled, elevated ridges **262** may extend from substrate **258** or the remaining portion of upper surface **260** such that a user may scrub clothing more articles across the elevated ridges **262** (e.g., for the removal of stains from such articles). Optionally, the elevated ridges **262** may extend to a suitable height or distance (e.g., from the remaining portion of upper surface **260**) between 0.1 inch and 0.5 inch. Moreover, the elevated ridges **262** may be formed to any suitable shape or design. As an example, and as illustrated in FIG. **6A**, each ridge **262** may be formed as an isolated protrusion **264**. Multiple protrusions **264** may be formed in, for instance, parallel wave pattern. As another example, and as illustrated in FIG. **6B**, each ridge **262** may be formed as a corrugated crest **266**, defining separate channels between adjacent ridges **262**.

[0050] Turning especially to FIGS. **5** and **7**, in exemplary embodiments, textured agitation panel **256** extends from (e.g., directly from) a portion of cabinet **102**. For instance, textured agitation panel **256** may extend toward tub **121** (e.g., relative to the vertical direction **V**) from top panel **140**. As shown, at least a portion of textured agitation panel **256** (e.g., upper surface **260**) may extend at or otherwise define an angle θ relative to the vertical direction **V**. Furthermore, textured agitation panel **256** may pass beneath opening **105** and generally extend radially inward (e.g., toward the rotation axis **A** of basket **120**).

[0051] In some embodiments, textured agitation panel **256**, including substrate **258**, is attached or fixed to top panel **140** directly. As an example, textured agitation panel **256** may be integrally formed (e.g., as a unitary monolithic unit) with top panel **140**. As another example, textured agitation panel **256** may be directly attached to top panel **140** by one or more suitable adhesives or mechanical fasteners. Alternatively, textured agitation panel **256** may be indirectly attached to top panel **140** through one or more intermediate members mounted within cabinet **102** between top panel **140** and tub **121**.

[0052] When assembled, fluid dispenser **200** is positioned above (e.g., directly above) at least a portion of textured agitation panel **256**. In particular, fluid dispenser **200** is mounted above upper surface **260**. A fluid outlet **254** of fluid dispenser **200** may be directed toward upper surface **260**. Water or wash fluid dispensed from fluid outlet **254** flows along the path defined by upper surface **260**. In other words, fluid outlet **254** is positioned upstream from upper surface **260**. As described above, fluid dispenser **200**, including fluid outlet **254**, is provided downstream from one or more fluid sources, such as water source **268** or a mixing chamber **220**.

During use, fluid dispenser **200** may thus selectively flow one or more fluids across textured agitation panel **256**. In particular wash fluids may flow over upper surface **260** and across the elevated ridges **262** (FIGS. **6A** and **6B**) before flowing to the tub **121** or wash basket **120**. Advantageously, the wash fluid flowing over textured agitation panel **256** may be utilized when scrubbing articles thereon and, for example, further assist in the removal of stains. Moreover, the wash fluid may regularly clean textured agitation panel **256**, preventing stains, mold, or mildew from accumulating on textured agitation panel **256**.

[0053] Turning now to FIGS. **8** and **9**, in some embodiments, textured agitation panel **256** extends from the portion of fluid dispenser **200**. For instance, textured agitation panel **256** may extend toward tub **121** (e.g., relative to the vertical direction V) from the front side of fluid dispenser **200**. In some such embodiments, textured agitation panel **256**, including substrate **258**, is attached or fixed to fluid dispenser **200** directly. Optionally, textured agitation panel **256** may be integrally formed with the box or body of fluid dispenser **200**. As shown, at least a portion of textured agitation panel **256** (e.g., upper surface **260**) may extend at an angle θ relative to the vertical direction V. Textured agitation panel **256** may pass beneath opening **105** and generally extend radially inward (e.g., toward the rotation axis A of basket **120**).

[0054] When assembled, fluid outlet **254** is positioned above (e.g., directly above) at least a portion of textured agitation panel **256**. In particular, fluid outlet **254** of fluid dispenser **200** may be directed toward upper surface **260**. In other words, fluid outlet **254** is positioned upstream from upper surface **260**. As described above, fluid dispenser **200**, including fluid outlet **254**, is provided downstream from one or more fluid sources, such as water source **268** or a mixing chamber **220**. During use, fluid dispenser **200** may thus selectively flow one or more wash fluids across textured agitation panel **256**. In particular wash fluids may flow over upper surface **260** and across the elevated ridges **262** (FIGS. **6A** and **6B**) before flowing to the tub **121** or wash basket **120**. Advantageously, the wash fluid flowing over textured agitation panel **256** may be utilized when scrubbing articles thereon and, for example, further assist in the removal of stains. Moreover, the wash fluid may regularly clean textured agitation panel **256**, preventing mold or mildew from accumulating on textured agitation panel **256**.

[0055] Turning briefly to FIG. **10**, although FIGS. **8** and **9** illustrate textured agitation panel **256** as extending at an angle relative to the vertical direction V, in alternative embodiments, textured agitation panel **256** is positioned parallel to the vertical direction V (FIG. **7**). At least a portion of the wash fluid from fluid dispenser **200** may thus flow along the vertical direction V and across the upper surface **260** of textured agitation panel **256** before flowing to the basket **120** or tub **121**.

[0056] 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 washing machine appliance defining a vertical direction, a lateral direction, and a transverse direction, the washing machine appliance comprising:

- a cabinet comprising a top panel, the top panel defining an opening;
- a tub positioned within the cabinet;
- a textured agitation panel extending from the cabinet toward the tub; and
- a wash fluid dispenser directed at the textured agitation panel and mounted thereabove along the vertical direction to flow wash fluid across the textured agitation panel.

2. The washing machine appliance of claim 1, wherein the textured agitation panel comprises an integral upper surface defining a plurality of elevated ridges.

3. The washing machine appliance of claim 1, wherein the textured agitation panel extends from the top panel.

4. The washing machine appliance of claim 1, wherein the textured agitation panel extends from the wash fluid dispenser.

5. The washing machine appliance of claim 1, further comprising a basket mounted with the tub to rotate about a rotation axis, and wherein the textured agitation panel is positioned along a non-parallel angle relative to the vertical direction toward the rotation axis.

6. The washing machine appliance of claim 1, wherein the textured agitation panel is positioned parallel to the vertical direction.

7. The washing machine appliance of claim 1, wherein the wash fluid dispenser defines

- a fluid outlet upstream from the textured agitation panel, and
- a mixing chamber upstream from the fluid outlet and downstream from a water source to receive a wash additive therein.

8. The washing machine appliance of claim 1, wherein the top panel extends along the transverse direction between a front portion and a rear portion, and wherein the textured agitation panel is positioned at the rear portion of the top panel.

9. The washing machine appliance of claim 1, wherein the top panel extends along the transverse direction between a front portion and a rear portion, and wherein the textured agitation panel is positioned at the front portion of the top panel.

10. The washing machine appliance of claim 1, wherein the top panel extends along the lateral direction between a first side portion and a second side portion, and wherein the textured agitation panel is positioned at one of the first side portion or the second side portion of the top panel.

11. A washing machine appliance defining a vertical, a lateral, and a transverse direction, the washing machine appliance comprising:

- a cabinet comprising a top panel, the top panel defining an opening;
- a tub positioned within the cabinet;
- a basket rotatably mounted within the tub to rotate about a rotation axis;

a textured agitation panel extending from the cabinet toward the tub, the textured agitation panel comprising an upper surface defining a plurality of elevated ridges; and

a wash fluid dispenser directed at the upper surface of the textured agitation panel and mounted thereabove along the vertical direction, the wash fluid dispenser defining a fluid outlet upstream from the textured agitation panel, the wash fluid dispenser further defining a mixing chamber upstream from the fluid outlet and downstream from a water source to receive a wash additive therein.

12. The washing machine appliance of claim **11**, wherein the plurality of elevated ridges is integrally-formed on the upper surface.

13. The washing machine appliance of claim **11**, wherein the textured agitation panel extends from the top panel.

14. The washing machine appliance of claim **11**, wherein the textured agitation panel extends from the wash fluid dispenser.

15. The washing machine appliance of claim **11**, further comprising a basket mounted with the tub to rotate about a

rotation axis, and wherein the textured agitation panel is positioned along a non-parallel angle relative to the vertical direction toward the rotation axis.

16. The washing machine appliance of claim **11**, wherein the textured agitation panel is positioned parallel to the vertical direction.

17. The washing machine appliance of claim **11**, wherein the top panel extends along the transverse direction between a front portion and a rear portion, and wherein the textured agitation panel is positioned at the rear portion of the top panel.

18. The washing machine appliance of claim **11**, wherein the top panel extends along the transverse direction between a front portion and a rear portion, and wherein the textured agitation panel is positioned at the front portion of the top panel.

19. The washing machine appliance of claim **11**, wherein the top panel extends along the lateral direction between a first side portion and a second side portion, and wherein the textured agitation panel is positioned at one of the first side portion or the second side portion of the top panel.

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