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Drawer and clothes treating machine including the same

Abstract

A drawer of a clothes treating machine includes a drawer frame that extends in a lengthwise direction and defines an inner space, and a storage unit disposed in the inner space of the drawer frame and configured to accommodate a clothes treatment agent therein. The drawer frame includes a housing accommodation part that defines a space separated from the inner space, a clothes treatment agent housing that is configured to be inserted into the housing accommodation part, and a protruding portion that separates the housing accommodation part and the clothes treatment agent housing from each other.

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Background/Summary

CROSS-REFERENCE TO RELATED APPLICATIONS (1) This application is a continuation of U.S. application Ser. No. 17/006,210, filed on Aug. 28, 2020, which claims the benefit of the earlier filing date and the right of priority to Korean Patent Application No. 10-2019-0106708, filed on Aug. 29, 2019, and Korean Patent Application No. 10-2020-0018598, filed on Feb. 14, 2020, the contents of which are incorporated by reference herein in their entirety.

TECHNICAL FIELD

(1) The present disclosure relates to a drawer and a clothes treating machine having the same, and more particularly, to a drawer having a structure capable of helping to prevent a clothes treatment agent supplied by a user from reaching a storage container due to overflow, and a clothes treating machine including the same.

BACKGROUND

(2) A clothes treating machine may perform washing, rinsing, dehydrating or drying clothes (laundry) using natural or chemical substances such as detergent or softener. A user may treat clothes by accommodating the clothes to be treated in the clothes treating machine and supplying detergent, softener, and the like.

(3) In some cases, it may be inconvenient to supply a proper amount of detergent or softener to the clothes treating machine when a clothes treating process is carried out. In some case, frequent opening and closing of a drawer filled with detergent or softener may cause a failure of the drawer.

(4) In some examples, the user may supply detergent or softener in advance to a storage container provided separately in the clothing treating machine. For example, an amount of detergent or softener to perform a clothes treating process several times may be supplied to the storage container.

(5) When the clothes treating machine is operated by the user, the detergent or softener may be supplied to a tub, and an amount of the detergent or softener may depend on a set clothes treating process. In some cases, where the user may not need to supply the detergent or softener when performing the clothes treating process, the user's convenience may be enhanced.

(6) The detergent or softener supplying method may be defined as an “automatic supplying method”. For example, detergent or softener may be automatically supplied from a storage container according to a clothes treating process selected by the user. The storage container may be inserted into the drawer and accommodated in a frame provided inside the housing.

(7) In some cases, detergent or softener may be supplied directly depending on a clothes treating process. For example, the drawer may be configured to allow the user to manually supply detergent or softener. The configuration may be defined as a “manual supply unit.”

(8) In some examples, the storage container may be filled with detergent or softener for performing

a plurality of clothes treating processes, while the manual supply unit may be filled with detergent or softener for a single clothes treating process. Accordingly, the manual supply unit may be smaller than the storage container in volume.

(9) In some cases, the manual supply unit may be surrounded by a space, which is occupied by the storage container, in an inner space of the drawer. In some cases, the manual supply unit may be located adjacent to the space occupied by the storage container.

(10) In some cases, detergent or softener may be introduced into another space, other than the manual supply unit, due to the user's inexperienced manipulation. In some cases, detergent or softener may overflow from the manual supply unit due to an excessive supply.

(11) In some cases, the detergent or softener may be introduced into another space adjacent to the manual supply unit, for example, the space occupied by the storage container. This may spoil an appearance of the drawer and also cause contamination of the inner space of the drawer.

(12) In some cases, a detergent supply device for a drum type washing machine may include an overflow prevention passage which communicates with a main detergent storage unit and an auxiliary detergent storage unit disposed in the detergent supply device. Accordingly, when detergent supplied to any one of the main detergent storage unit and the auxiliary detergent storage unit overflows, the overflowed detergent may flow into another storage unit through the overflow prevention passage. In some cases, this type of detergent supply device may have at least one of storage units that is empty.

(13) In some cases, a detergent supply device for a washing machine may have a structure helping to prevent detergent from remaining in a detergent storage unit by forming a water overflow step in a pool for storing water, which communicates with the detergent storage unit. This type of detergent supply device may control an amount of detergent introduced into a tub in a quantitative manner.

SUMMARY

(14) The present disclosure describes a drawer having a structure helping to prevent an introduction of a clothes treatment agent or fluid into a space where a storage container is accommodated, when the clothes treatment agent or fluid excessively supplied into a clothes treatment agent housing overflows, and a clothes treating machine including the same.

(15) The present disclosure also describes a drawer having a structure helping to prevent a clothes treatment agent or fluid overflowed from a clothes treatment agent housing from remaining in an inner space of the drawer, and a clothes treating machine including the same.

(16) The present disclosure further describes a drawer having a structure capable of supplying a clothes treatment agent or fluid overflowed from a clothes treatment agent housing into a tub without discard, and a clothes treating machine including the same.

(17) The present disclosure further describes a drawer having a structure capable of stably mounting a clothes treatment agent housing in a housing accommodation part, and a clothes treating machine including the same.

(18) The present disclosure further describes a drawer having a structure helping to prevent an unnecessary movement of a clothes treatment agent housing after the clothes treatment agent housing is mounted in a housing accommodation part, and a clothes treating machine including the same.

(19) The present disclosure further describes a drawer having a structure capable of stably supporting a dispenser assembly into which the drawer is inserted, and a clothes treating machine including the same.

(20) The present disclosure further describes a clothes treating machine having a structure capable of minimizing an amount of clothes treatment agents remaining in a storage container.

(21) The present disclosure further describes a clothes treating machine having a structure helping to prevent leakage of a clothes treatment agent through a storage container by limiting a sequence or direction that the storage container is inserted into a drawer.

(22) According to one aspect of the subject matter described in this application, a drawer of a clothes treating machine includes a drawer frame that extends in a lengthwise direction and defines an inner space, and a storage unit disposed in the inner space of the drawer frame and configured to accommodate a clothes treatment agent therein. The drawer frame includes a housing accommodation part that defines a space separated from the inner space, a clothes treatment agent housing that is configured to be inserted into the housing accommodation part, and a protruding portion that separates the housing accommodation part and the clothes treatment agent housing from each other.

(23) Implementations according to this aspect may include one or more of the following features. For example, the protruding portion may protrude toward the clothes treatment agent housing from a surface of the drawer frame surrounding the housing accommodation part. In some examples, the housing accommodation part may define a fluid outlet port that passes through a lower side of the housing accommodation part and is open to an outside of the drawer frame. In some examples, the clothes treatment agent housing may be configured to be located above the fluid outlet port. In some examples, the fluid outlet port may be defined at a portion closer to the protruding portion than to a front of the drawer frame.

(24) In some implementations, the protruding portion may include a plurality of protruding portions that are spaced apart from each other and that protrude from a surface of the housing accommodation part, and the plurality of protruding portions may define a space portion between the clothes treatment agent housing and the surface of the housing accommodation part, where the space portion is configured to receive a portion of the clothes treatment agent overflowed from the clothes treatment agent housing.

(25) In some implementations, the protruding portion may include a first surface that extends in an up and down direction, and a second surface that is inclined with respect to the first surface and extends from an upper side of the first surface to a surface of the housing accommodation part. In some implementations, the housing accommodation part may include a support pin that protrudes from a lower portion of the housing accommodation part and is configured to support the clothes treatment agent housing.

(26) In some implementations, the housing accommodation part may include a support rod configured to support a front side of the clothes treatment agent housing. In some examples, the drawer frame may include a manual introduction part defining a space configured to receive the clothes treatment agent, and a partition plate that is located between the manual introduction part and the housing accommodation part and partitions the manual introduction part and the housing accommodation part from each other. In some examples, the storage unit may be configured to be accommodated in the inner space of the drawer frame and surround the housing accommodation part.

(27) In some implementations, the storage unit may be configured to store a first clothes treatment agent that is liquid, and the clothes treatment agent housing may be configured to store a second clothes treatment agent that is liquid or powder.

(28) According to another aspect, a clothes treating machine includes a housing, a tub disposed in the housing, a drum rotatably disposed in the tub, a drawer configured to be drawn out and inserted into the housing and to accommodate a clothes treatment agent therein, and a clothes treatment agent housing that is configured to be disposed in the drawer and defines an opening configured to receive the clothes treatment agent. The drawer includes a drawer frame that extends in a lengthwise direction and defines an inner space, an inner wall that faces the inner space and divides the inner space into at least two spaces, a housing accommodation part surrounded by the inner wall and configured to accommodate the clothes treatment agent housing, and a protruding portion that protrudes from a first side of the inner wall and is configured to, based on the clothes treatment agent housing being accommodated in the housing accommodation part, contact the clothes treatment agent housing to separate the clothes treatment agent housing from the first side of the

inner wall.

(29) Implementations according to this aspect may include one or more of the following features or the features of the drawer described above. For example, the protruding portion may include a plurality of protruding portions that are spaced apart from each other, and the plurality of protruding portions may define a space portion between the plurality of protruding portions or between the clothes treatment agent housing and the inner wall, where the space portion is configured to receive a portion of the clothes treatment agent overflowed from the clothes treatment agent housing.

(30) In some implementations, the housing accommodation part may define a fluid outlet port that passes through a lower side of the housing accommodation part, that is in communication with the space portion, and that is configured to communicate with the tub. In some examples, the housing accommodation part may include a support pin that protrudes from the lower side of the housing accommodation part and is configured to support the clothes treatment agent housing. In some examples, the inner wall may include a first plane portion and a second plane portion that extend in the lengthwise direction and face each other, and the housing accommodation part may include a support rod that extends from the first plane portion to the second plane portion and is configured to support the clothes treatment agent housing.

(31) In some implementations, the clothes treatment agent housing may include an outer circumferential surface that is disposed at a lower side of the clothes treatment agent housing and that extends from a first side of the clothes treatment agent housing toward a second side of the clothes treatment agent housing, where the outer circumferential surface is inclined with respect to the lengthwise direction. A portion of the outer circumferential surface adjacent to the first side of the clothes treatment agent housing may be configured to contact an end portion of the support pin.

(32) In some implementations, the clothes treatment agent housing may include a support protrusion surface that extends from the outer circumferential surface toward the second side of the clothes treatment agent housing, where the support protrusion surface is inclined with respect to the outer circumferential surface, and the support rod is configured to contact and support the support protrusion surface based on the clothes treatment agent housing being accommodated in the housing accommodation part.

(33) In some implementations, the clothes treatment agent housing may include an alignment pin that protrudes from a lower side of the clothes treatment agent housing, and the housing accommodation part may include a support boss portion that protrudes from a lower surface of the housing accommodation part. The support boss portion may define an alignment pin insertion groove configured to receive the alignment pin based on the clothes treatment agent housing being accommodated in the housing accommodation part.

(34) In some implementations, a protruding portion may be disposed on a rear plane portion of an inner wall, adjacent to a clothes treatment agent housing. A rear side of the clothes treatment agent housing may be brought into contact with the protruding portion. Accordingly, the rear side of the clothes treatment agent housing may be spaced a predetermined distance apart from the rear plane portion of the inner wall, thereby defining a space portion between the clothes treatment agent housing and the inner wall.

(35) Accordingly, when a clothes treatment agent or fluid overflows from the clothes treatment agent housing, the overflowed clothes treatment agent or fluid may flow into the space portion. This may help to prevent the clothes treatment agent or fluid from flowing to a storage container located at the rear of the inner wall.

(36) In some implementations, the space portion may communicate with a fluid outlet port. The fluid outlet port may communicate with a tub, so that the clothes treatment agent or fluid overflowed from the clothes treatment agent housing may flow to the fluid outlet port via the space portion.

(37) In some implementations, the clothes treatment agent or fluid overflowed from the clothes

treatment agent housing may not remain in an inner space of a drawer. Accordingly, degradation of appearance, contamination, and the like, which may be caused due to the residual of the clothes treatment agent or fluid, may be avoided.

(38) In some implementations, the fluid outlet port and the tub may communicate with each other. The clothes treatment agent or fluid may be introduced into the tub through the fluid outlet port.

(39) In some implementations, the clothes treatment agent or fluid overflowed from the clothes treatment agent housing may also be used for performing a clothes treating process. This may result in preventing the overflowed clothes treatment agent from being discarded to outside of the clothes treating machine or from remaining in the drawer and causing contamination.

(40) In some implementations, a housing accommodation part may include a support rod, a support pin, a support boss portion, an alignment pin, and an alignment pin insertion groove. When the clothes treatment agent housing is accommodated in the housing accommodation part, those components may support the clothes treatment agent housing. Those components may additionally allow the clothes treatment agent housing to be kept located at its seated position.

(41) For example, the support rod may restrict a forward movement of the clothes treatment agent housing. The support pin may additionally restrict a downward movement of the clothes treatment agent housing. A rearward movement of the clothes treatment agent housing may be also restricted by the protruding portion, and a movement of the clothes treatment agent housing in a left and right direction is restricted by the alignment pin and the alignment pin insertion groove.

(42) In some implementations, a state in which the clothes treatment agent housing is spaced apart by a predetermined distance from the inner wall and a lower surface enclosing the housing accommodation part may be stably maintained. This may result in preventing unnecessary movement of the clothes treatment agent housing accommodated in the housing accommodation part.

(43) In some implementations, a rear side of the dispenser assembly into which the drawer is inserted may be supported by a support member. The support member may be inserted through a rear surface of a housing. The dispenser assembly may be inserted into the support member.

(44) Thus, stable support may be achieved as compared to the case where the dispenser assembly is supported merely by a housing frame. Accordingly, even when vibration occurs as the clothes treating machine is operated, the dispenser assembly may be stably maintained on its original position.

(45) In some implementations, a discharge inclined portion may be on a lower side of the storage container. The discharge inclined portion is inclined toward a rear side. A collection space portion is formed on a rearmost side of the discharge inclined portion, so that a clothes treatment agent moved to the rear side is collected therein.

(46) In some implementations, a check valve may be partially accommodated in the discharge inclined portion. The discharge inclined portion and an inner space of the check valve communicate with each other. The collected clothes treatment agent may be supplied to the tub through the check valve.

(47) This may result in minimizing an amount of clothes treatment agents remaining in the storage container. Accordingly, contamination due to the residual clothes treatment agent may be prevented. Furthermore, there is no need to frequently supply the clothes treatment agent in the storage container in order to compensate for the residual amount of clothes treatment agents.

(48) In some implementations, a rear end portion may be disposed at the rear of the drawer. The rear end portion includes an opening in which a sensor portion and the check valve of the storage container are accommodated, and a partition member for partitioning the opening. The partitioned openings do not communicate with each other due to the partitioning member.

(49) In some examples, when the storage container is inserted into the drawer, the sensor portion or the check valve may be inserted only in a direction and order of bypassing the partition member. In addition, when the storage container is detached from the drawer, the sensor portion or the check

valve may be detached only in the direction and order of bypassing the partition member.

(50) In some examples, the storage container may be inserted or detached in a manner that the front side of the storage container may be kept located to be higher than the rear side. Therefore, leakage of the clothes treatment agent through a through hole formed through the front side of the storage container may be reduced or prevented.

Description

BRIEF DESCRIPTION OF THE DRAWINGS

- (1) FIG. 1 is a perspective view illustrating an appearance of an example of a clothes treating machine.
- (2) FIG. 2 is a perspective view illustrating an example of an interior of the clothes treating machine of FIG. 1.
- (3) FIGS. 3 and 4 are open perspective views illustrating an example of an inner upper side of the clothes treating machine of FIG. 1.
- (4) FIG. 5 is a planar view illustrating an example of a dispenser assembly provided in the clothes treating machine of FIG. 1.
- (5) FIG. 6 is a perspective view illustrating an example of a drawer provided in the clothes treating machine of FIG. 1, an example of a storage container, and an example of a clothes treatment agent housing both coupled to the drawer.
- (6) FIG. 7 is a planar view illustrating an example of a drawer from which the clothes treatment agent housing of FIG. 6 is detached.
- (7) FIG. 8 is a planar view of FIG. 6.
- (8) FIG. 9A is a partially-enlarged perspective view illustrating an example state of FIG. 7.
- (9) FIG. 9B is a partially-enlarged perspective view illustrating a state of FIG. 8.
- (10) FIG. 10 is a partially-enlarged perspective view illustrating an example of a rear side of the drawer of FIG. 6.
- (11) FIG. 11 is a perspective view illustrating the storage container coupled to the drawer of FIG. 6.
- (12) FIG. 12 is a left view of the storage container of FIG. 11.
- (13) FIG. 13 is a bottom view of the storage container of FIG. 11.
- (14) FIG. 14 is a rear view of the storage container of FIG. 11.
- (15) FIG. 15A is a forward perspective view of the clothes treatment agent housing coupled to the drawer of FIG. 6.
- (16) FIG. 15B is a reverse perspective view of the clothes treatment agent housing coupled to the drawer of FIG. 6.
- (17) FIG. 16 is a perspective view illustrating an example of a support member provided in the clothes treating machine of FIG. 4.
- (18) FIG. 17A is a planar view of the support member of FIG. 16.
- (19) FIG. 17B is a lateral view of the support member of FIG. 16.
- (20) FIG. 17C is a rear view of the support member of FIG. 16.
- (21) FIG. 18 is a rear perspective view illustrating an example state in which the storage container is coupled to the drawer of FIG. 6.
- (22) FIG. 19 is a cross-sectional view illustrating an example state in which a clothes treatment agent is prevented from remaining by the structure of the storage container of FIG. 11.
- (23) FIG. 20 is an enlarged cross-sectional view of a part A of FIG. 19.
- (24) FIG. 21 is a cross-sectional view illustrating an example overflow state of the clothes treatment agent inside the clothes treatment agent housing coupled to the drawer of FIG. 6.
- (25) FIG. 22 is an enlarged cross-sectional view of a part A of FIG. 21.
- (26) FIG. 23 is an enlarged cross-sectional view of part C of FIG. 21.

- (27) FIG. **24** is a rear perspective view illustrating an example of a rear surface of a housing in a state before the support member of FIG. **16** is coupled to the housing.
- (28) FIG. **25** is a rear perspective view illustrating an example state in which the support member of FIG. **16** is coupled to the housing.
- (29) FIG. **26** is a partially-enlarged cross-sectional view of FIG. **25**.

DETAILED DESCRIPTION

- (30) Hereinafter, one or more implementations of a clothes treating machine will be described in detail with reference to the accompanying drawings.
- (31) In the following description, in order to clarify the features of the present disclosure, description of some components may be omitted.
- (32) The term “clothes treating machine” as used in the following description refers to any apparatus capable of treating clothes, such as washing or drying the clothes. In some implementations, the clothes treating machine may be a washing machine, a dryer, or a dry-cleaning apparatus.
- (33) The term “treatment of clothes” as used in the following description refers to treatment such as washing, sterilization, bleaching, softening and drying performed on clothes.
- (34) The term “detergent” used in the following description refers to any material used to sterilize, disinfect, or remove impurities from clothing, textiles or the like. In some implementations, the detergent may be a solid power, liquid, or the like.
- (35) The term “softener” used in the following description refers to any substance or chemical used to soften clothing, textiles, or the like.
- (36) The term “bleaching agent” used in the following description refers to any substance or chemical that decomposes and removes colored substances contained in fibers and the like by a chemical action to whiten the fibers and the like.
- (37) The term “clothes treatment agent” as used in the following description refers to any substance capable of causing a chemical or physical action to treat clothing. In some implementations, the clothes treatment agent may be used as meaning including detergent, softener, bleach, and the like. In addition, the clothes treatment agent may be in a liquid phase.
- (38) The term “fluid” as used in the following description refers to any fluid that may be mixed with a clothes treatment agent or function as a solvent for the clothes treatment agent. In some implementations, the fluid may be wash water, i.e., water.
- (39) The terms “top”, “bottom”, “left”, “right”, “front” and “rear” used in the following description will be understood with reference to coordinate systems illustrated in FIGS. **1** and **6**.
- (40) Referring to FIGS. **1** to **4**, a clothes treating machine **10** includes a housing **100**, a dispenser assembly **200**, and a drawer **300**.
- (41) In some implementations, referring to FIGS. **5** to **17C**, the clothes treating machine **10** may include a storage unit **400**, a clothes treatment agent housing **500**, and a support member **600**.
- (42) Hereinafter, each component will be described in detail with reference to the accompanying drawings.
- (43) Referring to FIGS. **1** to **4**, the clothes treating machine **10** includes the housing **100**.
- (44) The housing **100** defines an appearance of the clothes treating machine **10**. A predetermined inner space S is formed inside the housing **100**. Various components for treating clothes by the clothes treating machine **10** may be accommodated in the predetermined inner space S. For example, a compressor for a clothes treating process related to heat transfer, such as a drying treatment, may be accommodated in the inner space, in addition to components to be described later.
- (45) Inside and outside of the housing **100** may communicate with each other. Accordingly, a fluid, namely, wash water for treating clothes may be introduced into the housing **100**.
- (46) In some examples, a hose member communicating the inside and the outside of the housing **100** with each other may be provided. One side of the hose member may be inserted into the

housing **100** and another side of the hose member may be connected to a faucet or the like.

(47) The inside and outside of the housing **100** may be electrically connected to each other.

Accordingly, power for operating the clothes treating machine **10** may be supplied. For example, as power is supplied, a drum **171** may be rotated to treat clothes.

(48) The housing **100** includes a housing frame **110**, a front surface **120**, a rear surface **130**, side surfaces **140**, a door unit **150**, a manipulation unit **160**, a tub **170**, and a drum **171**.

(49) The housing frame **110** forms a framework of the housing **100**. The housing frame **110** may include a top surface, the front surface **120**, the rear surface **130**, the side surfaces **140**, and the like defining an outer surface of the housing **100**.

(50) In addition, the housing frame **110** may be coupled with the door unit **150** for a user to input clothes, etc., the manipulation unit **160** for controlling the clothes treating machine **10**, and the like.

(51) As illustrated in FIGS. **3** and **4**, the housing frame **110** may define the predetermined inner space S. That is, the housing frame **110** defines edges of the predetermined inner space S.

(52) The top surface, the front surface **120**, the rear surface **130**, and the side surfaces **140** may be coupled to the housing frame **110**, so that the predetermined inner space S may be defined as a closed space to be opened by the door unit **150**.

(53) The dispenser assembly **200** may be coupled to the housing frame **110**. The dispenser assembly **200** is located in the predetermined inner space S. One side, namely, a right side of the dispenser assembly **200** and a part of an upper side of the dispenser assembly **200** may be fixedly coupled to the housing frame **110**.

(54) In addition, as will be described later, the clothes treating machine **10** includes the support member **600**. The support member **600** is coupled through the rear surface **130** of the housing **100**.

(55) The support member **600** may be coupled to a rear protrusion **212** of the dispenser assembly **200**. With the configuration, the dispenser assembly **200** may be stably supported. This will be described in detail later.

(56) The front surface **120** may define one side of the housing **100**, for example, the front side of the housing **100**. The front surface **120** may be coupled to the housing frame **110**.

(57) The front surface **120** may be formed smaller than a space defined by the front of the housing frame **110**. This results from that the manipulation unit **160** and the drawer **300** are also provided on the front of the housing **100**.

(58) An opening may be formed inside the front surface **120**. The door unit **150** may be rotatably coupled to the opening.

(59) The drawer **300** and the manipulation unit **160** are located on an upper portion of the front surface **120**. In some implementations, the drawer **300** is located on a right side, and the manipulation unit **160** is located on a left side.

(60) The rear surface **130** may define one side of the housing **100**, for example, the rear side of the housing **100**. The rear surface **130** may be coupled to the housing frame **110**.

(61) The rear surface **130** is provided with a plurality of through holes. A conductor member for electrically connecting an external power source and internal components of the clothes treating machine **10** may be inserted through any of the through holes. In addition, a hose member for communicating an external water pipe with internal components of the clothes treating machine **10** may be inserted through any of the through holes.

(62) In addition, heat and air may be sucked or discharged through the through holes. Accordingly, a clothes treating process related to heat transfer or a clothes treating process by air may be performed.

(63) The rear surface **130** includes a support member insertion hole **131**, a support member coupling hole **132**, and a support member guide hole **133** (see FIG. **24**).

(64) A support body portion **610** of the support member **600** is coupled through the support member insertion hole **131**. The support member insertion hole **131** is formed through the rear surface **130**.

(65) As will be described later, the support body portion **610** is formed to have a circular cross section, and the support member insertion hole **131** is also formed to have a circular cross section.

(66) The support member **600** inserted into the support member insertion hole **131** may be rotated by a predetermined distance. Accordingly, a coupling protrusion **641** of the support member **600** may be fitted in the support member coupling hole **132**.

(67) The support member coupling hole **132** and the support member guide hole **133** are formed along a radially outer side of the support member insertion hole **131**.

(68) The coupling protrusion **641** of the support member **600** is inserted through the support member coupling hole **132**. The support member coupling hole **132** is formed through the rear surface **130**.

(69) The support member coupling hole **132** is configured to prevent the support member **600** coupled to the rear surface **130** from being arbitrarily separated from the rear surface **130**.

(70) The coupling protrusion **641** inserted into the support member coupling hole **132** is moved in response to the rotation of the support member **600**. The coupling protrusion **641** may be moved by a predetermined distance while being inserted into the support member coupling hole **132**.

(71) In some examples, the support member coupling hole **132** may be defined in an arcuate shape having a predetermined length.

(72) In some implementations, the support member coupling hole **132** may be provided in plurality spaced apart from the support member insertion hole **131** by a predetermined distance.

(73) The plurality of support member coupling holes **132** is spaced apart from one another by predetermined distances. In addition, the plurality of support member coupling holes **132** is arranged in a circumferential direction radially outside the support member insertion hole **131**.

(74) The support member guide hole **133** is located between the neighboring support member coupling holes **132**. That is, the support member coupling holes **132** and the support member guide holes **133** are alternately formed along the circumferential direction radially outside the support member insertion hole **131**.

(75) In some implementations, the support member coupling holes **132** are provided by three in number. The number of support member coupling holes **132** may change to correspond to the number of coupling protrusions **641** of the support member **600**.

(76) A support member coupling portion **132a** is formed on one end portion of each support member coupling hole **132** in the circumferential direction. The support member coupling portion **132a** may be engaged with the coupling protrusion **641**.

(77) That is, the coupling protrusion **641** is inserted into one side of the support member coupling hole **132** where the support member coupling portion **132a** is not formed, and then rotated to be fitted in the support member coupling portion **132a**.

(78) When the coupling protrusion **641** is brought into contact with the support member coupling portion **132a**, an arbitrary rotation of the support member **600** may be prevented. That is, the coupling protrusion **641** and the support member coupling portion **132a** are not arbitrarily spaced apart from each other.

(79) A guide protrusion **643** of the support member **600** is inserted into the support member guide hole **133**. The support member guide hole **133** is formed through the rear surface **130**.

(80) The support member guide hole **133** is configured to guide the rotation of the support member **600**.

(81) The guide protrusion **643** inserted into the support member guide hole **133** is moved in response to the rotation of the support member **600**. The guide protrusion **643** may be moved by a predetermined distance while being inserted in the support member guide hole **133**.

(82) In some examples, the support member guide hole **133** may be formed in an arcuate shape having a predetermined length.

(83) In some implementations, the support member guide hole **133** may be provided in plurality spaced apart from the support member insertion hole **131** by a predetermined distance. The

plurality of support member guide holes **133** is spaced apart from one another by predetermined distances. In addition, the plurality of support member coupling holes **132** is arranged in a circumferential direction radially outside the support member insertion hole **131**.

(84) The support member coupling hole **132** is located between the neighboring support member guide holes **133**. That is, the support member guide holes **133** and the support member coupling holes **132** are alternately formed along the circumferential direction radially outside the support member insertion hole **131**.

(85) In some implementations, the support member guide holes **133** are provided by three in number. The number of support member guide holes **133** may change to correspond to the number of guide protrusions **643** of the support member **600**.

(86) The side surfaces **140** form both surfaces of the housing **100**, namely, left and right surfaces in some implementations. The side surfaces **140** may be coupled to the housing frame **110**.

(87) Handle portions may be provided on the side surfaces **140**. The user may easily move the clothes treating machine **10** by gripping the handle portions.

(88) The front surface **120** and the side surfaces **140** may be configured to seal the front, left, and right sides of the clothes treating machine **10**.

(89) The door unit **150** is configured to open or close a front opening of the drum **171**. When the door unit **150** is opened, the opening of the drum **171** is exposed. The user may put clothes and the like to be treated into the drum **171** through the exposed opening.

(90) The door unit **150** is located below the manipulation unit **160** and the drawer **300**. In addition, the door unit **150** is coupled to the front surface **120** to be opened and closed. Specifically, the door unit **150** is coupled to the opening formed through the front surface **120**. In some implementations, the door unit **150** may be coupled to the front surface **120** by a hinge.

(91) The door unit **150** includes a door frame **151**, a window **152**, and a handle **153**.

(92) The door frame **151** defines an outer side of the door unit **150**. The door frame **151** may support the window **152** from outside. In addition, the handle **153** may be disposed between the door frame **151** and the window **152**. The door frame **151** may cover a part of the front surface **120**.

(93) The window **152** is located inside the door frame **151**.

(94) The window **152** is a portion that allows the user to visually recognize a state inside the drum **171**. The window **152** may be formed of a transparent material. In some implementations, the window **152** may be formed of tempered glass or the like.

(95) The handle **153** is located between the window **152** and the door frame **151**.

(96) The handle **153** is a portion that is gripped by the user to open the door unit **150**. In some implementations, the handle **153** is disposed to be relatively adjacent to the left side of the door unit **150**. The position of the handle **153** may be determined as an arbitrary position at which the user may grip the handle **153** to open the door unit **150**.

(97) A power signal for the user to operate the clothes treating machine **10** is applied to the manipulation unit **160**. In addition, a control signal related to a clothes treating process is applied to the manipulation unit **160** by the user.

(98) The manipulation unit **160** is electrically connected to each component of the clothes treating machine **10**. For example, the manipulation unit **160** is electrically connected to the tub **170**, the dispenser assembly **200**, and the like.

(99) A power signal and a control signal applied to the manipulation unit **160** are transmitted to each component of the clothes treating machine **10**. Accordingly, the clothes may be treated according to a treatment method selected by the user.

(100) The manipulation unit **160** is located above the front surface **120** and the door unit **150**. This is to enable the user to apply a power signal and a control signal through the manipulation unit **160** without bending his/her waist.

(101) In addition, the manipulation unit **160** is located at the left side of the dispenser assembly **200** and the drawer **300**. Since the user is often a right-handed person, the manipulation unit **160** allows

the user to conveniently apply a power signal and a control signal with a right hand.

(102) The manipulation unit **160** includes a display module **161**, a dial module **162**, a manipulation button module **163**, and an operation button module **164**.

(103) The display module **161** is configured to output a power signal and a control signal input by the user.

(104) The display module **161** may output visualization information related to the signals. In some implementations, the display module **161** may be configured as a liquid crystal display (LCD) or a light emitting diode (LED).

(105) The user may recognize a clothes treating process corresponding to the input power signal and control signal through the display module **161**. In addition, the user may recognize a currently-ongoing clothes treating process and a remaining time through the display module **161**.

(106) The dial module **162** is rotated by the user to receive a control signal related to a clothes treating process to be performed. In some implementations, the clothes treating process selected by the dial module **162** may be washing, rinsing, dehydration, drying, sterilization, and the like.

(107) The manipulation button module **163** is pressed by the user so that a control signal related to a clothes treating process to be performed is input. In some implementations, the clothes treating process selected by the manipulation button module **163** may be additional rinsing, additional dehydration, reserved washing, and the like.

(108) The manipulation button module **163** may include a plurality of buttons. Each button may be assigned a specific clothes treating process. That is, when the user wants to select a specific clothes treating process, the user may input a control signal by pressing at least one of the buttons.

(109) The operation button module **164** is pressed by the user so that a power signal for applying or cutting off power to the clothes treating machine **10** is input. In addition, the operation button module **164** receives a control signal for proceeding or temporarily stopping a selected clothes treating process.

(110) The operation button module **164** may include a plurality of buttons. A power signal may be input to any one of the buttons. Also, a control signal may be input to another button.

(111) The tub **170** and the drum **171** are located in the predetermined inner space **S** of the housing **100**.

(112) The tub **170** is in communication with the dispenser assembly **200**. A clothes treatment agent may be supplied from the dispenser assembly **200** to the tub **170**. In addition, a fluid for washing may be supplied from the dispenser assembly **200** to the tub **170**.

(113) The drum **171** is provided inside the tub **170**.

(114) Clothes to be treated is introduced into the drum **171**. When the door unit **150** is opened, an opening formed through one side of the drum **171**, namely, the front side in some implementations is opened. The user may put clothes and the like into the drum **171** through the opening.

(115) The drum **171** is rotatably disposed in the tub **170**. When a control signal for operating the clothes treating machine **10** is applied by the manipulation unit **160** or the like, the drum **171** may be rotated according to the control signal.

(116) In some examples, the tub **170** and the drum **171** may be electrically connected to the manipulation unit **160**. A conductor member may be provided for the electric connection.

(117) The tub **170** and the drum **171** may be in communication with each other. The clothes treatment agent and fluid supplied to the tub **170** may flow into the drum **171**. In some examples, the drum **171** may be provided with a plurality of through holes on an outer circumferential surface thereof, so that inside and outside of the drum **171** may communicate with each other.

(118) In some implementations, the tub **170** and the drum **171** have a circular cross section, and extend in a lengthwise direction, that is, in a back and forth direction in FIGS. **1** and **2**. That is, the tub **170** and the drum **171** have a cylindrical shape with a space formed therein.

(119) The tub **170** and the drum **171** may have any shape capable of accommodating clothes and the like therein and treating the same.

(120) Referring to FIGS. 2 to 5, the clothes treating machine **10** includes the dispenser assembly **200**.

(121) A predetermined space may be defined inside the dispenser assembly **200**. The drawer **300** is inserted into the predetermined space.

(122) The dispenser assembly **200** is electrically connected to the manipulation unit **160**. A power signal and a control signal input through the manipulation unit **160** may be transmitted to the dispenser assembly **200**.

(123) The dispenser assembly **200** may supply the clothes treatment agent to the tub **170** according to the input power signal and control signal. In addition, the dispenser assembly **200** may supply a fluid for treating clothes to the tub **170**. In some examples, the dispenser assembly **200** is in communication with the tub **170**.

(124) The dispenser assembly **200** is in communication with an external fluid supply unit. The dispenser assembly **200** may receive the fluid from the fluid supply unit according to the input power signal and control signal.

(125) The dispenser assembly **200** is in communication with the drawer **300**. The clothes treatment agent introduced into the drawer **300** may be supplied to the tub **170** together with the fluid through the dispenser assembly **200**.

(126) The dispenser assembly **200** communicates with the storage unit **400**. The clothes treatment agent stored in the storage unit **400** may be supplied together with the fluid to the tub **170** through the dispenser assembly **200**.

(127) The dispenser assembly **200** is accommodated in the inner space S of the housing **100**. One side, namely, a left side and an upper side of the dispenser assembly **200** may be coupled to the housing frame **110**.

(128) One side of the dispenser assembly **200**, namely, a rear side in some implementations may be supported by the support member **600**. This will be described in detail later.

(129) A predetermined space is defined in the dispenser assembly **200**. In addition, an opening is formed through one side of the dispenser assembly **200**, namely, the front side in some implementations. The drawer **300** is inserted into the predetermined space through the opening.

(130) When the drawer **300** is inserted into the predetermined space, check valves **416** and **426** of the storage unit **400** accommodated in the drawer **300** communicate with clothes treatment agent pumps **221** and **222**, respectively. Accordingly, the clothes treatment agent stored in the storage unit **400** may be supplied to the tub **170** through the respective clothes treatment agent pumps **221** and **222** via the drawer **300**.

(131) The dispenser assembly **200** includes a frame unit **210**, a clothes treatment agent pump unit **220**, a fluid supply unit **230**, and a clothes treatment agent supply unit **240**.

(132) The frame unit **210** defines an outer side of the dispenser assembly **200**. In addition, the frame unit **210** forms a framework of the dispenser assembly **200**.

(133) The frame unit **210** is coupled to the housing frame **110**. Specifically, in some implementations, right and front sides of the frame unit **210** are coupled to the housing frame **110**.

(134) The frame unit **210** extends in a lengthwise direction. This results from that the drawer **300** inserted into the predetermined space of the frame unit **210** extends in the lengthwise direction.

(135) An opening is formed through one side of the frame unit **210**, namely, a front side in some implementations. The drawer **300** may be inserted through the opening.

(136) A predetermined space is defined inside the frame unit **210**. The inserted drawer **300** is accommodated in the predetermined space.

(137) The clothes treatment agent pump unit **220** is located at another side of the frame unit **210** opposite to the one side in the lengthwise direction, namely, at the rear side in some implementations.

(138) In some implementations, the rear side of the frame unit **210** may communicate with an external fluid supply unit. The rear side of the frame unit **210** may also be electrically connected to

the manipulation unit **160**.

(139) The fluid supply unit **230** and the clothes treatment agent supply unit **240** are provided on one side of the frame unit **210**, namely, on an upper side in some implementations.

(140) A fluid supplied from an external fluid supply unit may be supplied to the drawer **300** accommodated in the predetermined space of the frame unit **210** through the fluid supply unit **230**. In some implementations, the external fluid supply unit may be a water pipe or the like.

(141) In addition, the clothes treatment agent accommodated in the storage unit **400** may be moved into the dispenser assembly **200** by the clothes treatment agent pump unit **220**. Such a clothes treatment agent may then be supplied to the tub **170** through an opening formed through a lower side of the dispenser assembly **200**.

(142) The lower side of the frame unit **210** may be in communication with the tub **170**. The fluid and clothes treatment agent introduced into the drawer **300** may be supplied to the tub **170** through the frame unit **210**.

(143) The frame unit **210** includes a lower body portion **211** and a rear protrusion **212**.

(144) The lower body portion **211** is disposed on a lower side of the frame unit **210**.

(145) Specifically, the lower body portion **211** protrudes rearward from one side of the frame unit **210**, namely, from a rear lower side of the frame unit **210** in some implementations.

(146) A predetermined space may be defined inside the lower body portion **211**.

(147) The rear protrusion **212** protrudes from one side of the lower body portion **211**, namely, from the rear side of the lower body portion **211** in some implementations. In some implementations, the rear protrusion **212** has a circular cross section. Also, a tooth portion **212a** is provided in plurality on an outer circumference of the rear protrusion **212** in a manner of being spaced apart from one another by predetermined distances in the circumferential direction.

(148) By forming the tooth portions **212a**, a weight of the rear protrusion **212** may be reduced. In addition, as the tooth portions **212a** are formed, rigidity of the rear protrusion **212** in the lengthwise direction may increase.

(149) The rear protrusion **212** may be inserted into the support member **600**.

(150) Accordingly, both sides of the dispenser assembly **200**, namely, front and right sides of the dispenser assembly **200** in some implementations are supported by the housing frame **110**. In addition, one side of the dispenser assembly **200**, namely, the rear side of the dispenser assembly **200** in some implementations is supported by the support member **600**.

(151) Accordingly, the dispenser assembly **200** may be stably supported. Furthermore, the coupled state between the dispenser assembly **200** and the housing **100** may be stably maintained.

(152) The clothes treatment agent pump unit **220** supplies a transfer force for transferring the clothes treatment agent accommodated in the storage unit **400** to the clothes treatment agent supply unit **240**.

(153) The clothes treatment agent pump unit **220** may be provided in any shape capable of generating a transfer force for moving a fluid from one position to another.

(154) The clothes treatment agent pump unit **220** is located on one side of the dispenser assembly **200**, namely, on the rear side in some implementations. The clothes treatment agent pump unit **220** may be provided at any position where it may not affect the insertion and removal of the drawer **300**.

(155) The clothes treatment agent pump unit **220** is in communication with the clothes treatment agent supply unit **240**. The clothes treatment agent accommodated in the storage unit **400** may flow to the clothes treatment agent supply unit **240** through the clothes treatment agent pump unit **220**.

(156) The clothes treatment agent pump unit **220** communicates with the drawer **300**. The clothes treatment agent accommodated in the storage unit **400** may flow to the tub **170** sequentially via the clothes treatment agent pump unit **220**, the clothes treatment agent supply unit **240**, and a fluid outlet port **359** of the drawer **300**.

(157) The clothes treatment agent pump unit **220** communicates with the storage unit **400**. When

the storage unit **400** is accommodated in the drawer **300** and inserted into the dispenser assembly **200**, check valves **416** and **426** of the storage unit **400** communicate with pump valves **224** and **225**, respectively.

(158) The clothes treatment agent pump unit **220** may be provided in plurality. In some implementations, the clothes treatment agent pump unit **220** includes a first clothes treatment agent pump **221** provided on a rear left side, and a second clothes treatment agent pump **222** provided on a rear right side to be adjacent to the first clothes treatment agent pump **221**.

(159) The first clothes treatment agent pump **221** communicates with a first storage container **410** of the storage unit **400**. The clothes treatment agent accommodated in the first storage container **410** may receive a transfer force by the first clothes treatment agent pump **221**.

(160) The first clothes treatment agent pump **221** communicates with a first clothes treatment agent flow path **241** of the clothes treatment agent supply unit **240**. The clothes treatment agent discharged from the first storage container **410** may flow to the first clothes treatment agent flow path **241** by the first clothes treatment agent pump **221**.

(161) The second clothes treatment agent pump **222** communicates with the second storage container **420** of the storage unit **400**. The clothes treatment agent accommodated in the second storage container **420** may receive a transfer force by the second clothes treatment agent pump **222**.

(162) The second clothes treatment agent pump **222** communicates with a second clothes treatment agent flow path **242** of the clothes treatment agent supply unit **240**. The clothes treatment agent discharged from the second storage container **420** may flow to the second clothes treatment agent flow path **242** by the second clothes treatment agent pump **222**.

(163) Further referring to FIG. **19**, the clothes treatment agent pump unit **220** includes a pump valve coupling portion **223**, a primary pump valve **224**, a secondary pump valve **225**, and a discharge portion **226**. Those components may be provided in the first clothes treatment agent pump **221** and the second clothes treatment agent pump **222**, respectively.

(164) The pump valve coupling portion **223** is a passage through which the clothes treatment agent discharged from the storage unit **400** flows into the inner space of the clothes treatment agent pump unit **220**.

(165) The pump valve coupling portion **223** is located between the primary pump valve **224** and the secondary pump valve **225**.

(166) A hollow portion is formed inside the pump valve coupling portion **223**. The clothes treatment agent accommodated in the storage unit **400** may flow through the hollow portion. In addition, the primary pump valve **224** and the secondary pump valve **225** are partially accommodated in the hollow portion.

(167) The pump valve coupling portion **223** communicates with the primary pump valve **224**.

(168) One side of the primary pump valve **224**, namely, a rear side in some implementations is partially accommodated in the pump valve coupling portion **223**. An inner circumference of the one side of the pump valve coupling portion **223** facing the primary pump valve **224**, namely, an inner circumference of a front side of the pump valve coupling portion **223** in some implementations may be hermetically coupled to the primary pump valve **224**.

(169) The pump valve coupling portion **223** communicates with the secondary pump valve **225**. One side of the secondary pump valve **225**, namely, a front side in some implementations is partially accommodated in the pump valve coupling portion **223**.

(170) The primary pump valve **224** and the secondary pump valve **225** may communicate with each other through the pump valve coupling portion **223**.

(171) One side of the pump valve coupling portion **223** facing the secondary pump valve **225**, namely, a rear side in some implementations is coupled to the secondary pump valve **225** having an opening. The secondary pump valve **225** may hermetically seal or close the opening. Accordingly, the flow of the clothes treatment agent is allowed or blocked.

(172) As described above, the primary pump valve **224** is located at the front of the pump valve

coupling portion **223**. In addition, the secondary pump valve **225** is located at the rear side of the pump valve coupling portion **223**.

(173) That is, the clothes treatment agent pump unit **220** may allow or block the flow of the clothes treatment agent by such dual pump valves **224** and **225**. This may result in preventing a leakage of the clothes treatment agent accommodated in the storage unit **400**.

(174) Each of the primary pump valve **224** and the secondary pump valve **225** may be provided in any shape that is opened or closed according to a pressure difference between one side and another side opposite to the one side. In some implementations, the primary pump valve **224** and the secondary pump valve **225** may be provided in the form of a check valve.

(175) The primary pump valve **224** is configured to allow or block communication between the first storage container **410** and the clothes treatment agent pump unit **220**. The primary pump valve **224** may be opened or closed according to a pressure difference between the inner space of the storage container **410**, **420** and the inner space of the clothes treatment agent pump unit **220**.

(176) The primary pump valve **224** is located between the storage container **410**, **420** and the clothes treatment agent pump unit **220**.

(177) Specifically, one side of the primary pump valve **224**, namely, the front side in some implementations is inserted into a hollow portion of a check valve cylinder portion **416a**, **426a** of the check valve **416**, **426**. In addition, another side of the primary pump valve **224** opposite to the one side, namely, the rear side in some implementations is accommodated in the pump valve coupling portion **223** of the clothes treatment agent pump unit **220**.

(178) The front side of the primary pump valve **224** is in contact with one side of a check valve cap portion **416b**, **426b** of the check valve **416**, **426**, namely, a rear side of the check valve cap portion in some implementations.

(179) When the storage container **410**, **420** accommodated in the drawer **300** is coupled to the dispenser assembly **200**, the primary pump valve **224** pushes the check valve cap portion **416b**, **426b** of the check valve **416**, **426** to one side, namely, to the front side in some implementations. Accordingly, the check valve cylinder portion **416a**, **426a** of the check valve **416**, **426** communicates with the inner space of the storage container **410**, **420**.

(180) The rear side of the primary pump valve **224** is partially accommodated in the pump valve coupling portion **223** so that their insides communicate with each other. In addition, the primary pump valve **224** is hermetically coupled to the pump valve coupling portion **223**.

(181) When the clothes treatment agent pump unit **220** is operated, a primary valve cap portion **224b** of the primary pump valve **224** is moved to one side, namely, to the rear side in some implementations, so that the inner space of the primary pump valve **224** and the inner space of the pump valve coupling portion **223** may communicate with each other.

(182) With the configuration, the clothes treatment agent accommodated in the storage container **410**, **420** may be introduced into the inner space of the clothes treatment agent pump unit **220**.

(183) The primary pump valve **224** includes a primary valve cylinder portion **224a**, a primary valve cap portion **224b**, a primary valve elastic portion **224c**, and an inlet port **224d**.

(184) The primary valve cylinder portion **224a** defines an outer side of the primary pump valve **224**.

(185) One side of the primary valve cylinder portion **224a**, namely, a front side thereof in some implementations is closed. Another side of the primary valve cylinder portion **224a**, namely, a rear side thereof in some implementations is opened. The opened rear side may be opened or closed by the primary valve cap portion **224b**. With the configuration, the communication between the clothes treatment agent pump unit **220** and the storage container **410**, **420** may be allowed or blocked.

(186) The front side of the primary valve cylinder portion **224a** is inserted into the hollow portion of the check valve cylinder portion **416a**, **426a**. At this time, a sealing member may be provided on a coupled portion between the primary valve cylinder portion **224a** and the check valve cylinder

portion **416a**, **426a** to prevent a leakage through the coupled portion.

(187) The rear side of the primary valve cylinder portion **224a** is inserted into the pump valve coupling portion **223**. An outer circumferential surface of the rear side of the primary valve cylinder portion **224a** may be hermetically coupled to an inner circumferential surface of the front side of the pump valve coupling portion **223**.

(188) The primary valve cylinder portion **224a** extends in the lengthwise direction. In some implementations, the primary valve cylinder portion **224a** is formed in a cylindrical shape which has a circular cross section and extends in the lengthwise direction.

(189) A hollow portion is formed inside the primary valve cylinder portion **224a**. The hollow portion penetrates through the primary valve cylinder portion **224a** in the lengthwise direction from a portion, which is spaced a predetermined distance apart from the front side, to the rear side. The clothes treatment agent accommodated in the storage container **410**, **420** may flow along the hollow portion.

(190) One side of the primary valve cylinder portion **224a**, namely, the front side thereof in some implementations is in contact with a rear end portion of the check valve cap portion **416b**, **426b** of the check valve **416**, **426**. When the storage container **410**, **420** accommodated in the drawer **300** is inserted into the dispenser assembly **200**, the primary valve cylinder portion **224a** may push the check valve cap portion **416b**, **426b**.

(191) Accordingly, an intake port **416d**, **426d** formed through the check valve cylinder portion **416a**, **426a** is opened. As a result, the inner space of the check valve cylinder portion **416a**, **426a** and the inner space of the storage container **410**, **420** may communicate with each other.

(192) The primary valve cap portion **224b** is configured to allow or block the communication between the inner space of the primary valve cylinder portion **224a** and the inner space of the pump valve coupling portion **223**.

(193) The primary valve cap portion **224b** may be provided with a body portion having a diameter corresponding to a diameter of the opening formed on the rear side of the primary valve cylinder portion **224a**, and extending in the lengthwise direction. When the body portion is inserted into the opening, the communication between the inside of the primary valve cylinder portion **224a** and the inside of the pump valve coupling portion **223** may be blocked.

(194) The primary valve cap portion **224b** may be moved in the lengthwise direction, namely, in the back and forth direction in some implementations.

(195) In a state where a transfer force by the clothes treatment agent pump unit **220** is not applied, the primary valve cap portion **224b** closes the opening formed on the rear side of the primary valve cylinder portion **224a**.

(196) In some examples, one side of the primary valve cap portion **224b**, namely, the rear side thereof in some implementations is elastically supported by the primary valve elastic portion **224c**.

(197) In addition, when the transfer force by the clothes treatment agent pump unit **220** is applied, the primary valve cap portion **224b** opens the opening of the primary valve cylinder portion **224a**. That is, the primary valve cap portion **224b** may be moved to the rear side by the transfer force which exceeds an elastic force by the primary valve elastic portion **224c**.

(198) The primary valve elastic portion **224c** elastically supports the primary valve cap portion **224b**. The primary valve elastic portion **224c** may prevent an arbitrary movement of the primary valve cap portion **224b** in the lengthwise direction.

(199) The primary valve elastic portion **224c** is located on one side of the primary valve cap portion **224b** in the lengthwise direction, namely, on the rear side thereof in some implementations.

(200) One side of the primary valve elastic portion **224c**, namely, the front side thereof in some implementations may be in contact with the rear end portion of the primary valve cap portion **224b**. In addition, another side of the primary valve elastic portion **224c**, namely, the rear side thereof in some implementations may be in contact with an inner circumference of the front side of the secondary valve cylinder portion **225a**.

(201) The primary valve elastic portion **224c** may be provided in any form capable of applying a stored restored force to the primary valve cap portion **224b** as the primary valve cap portion **224b** is moved to the rear side. In some implementations, the primary valve elastic portion **224c** may be provided in the form of a coil spring.

(202) The primary valve elastic portion **224c** may have a predetermined elastic modulus. A value of the elastic modulus may be determined depending on pressure for the clothes treatment agent pump unit **220** to pump the clothes treatment agent from the storage unit **400**.

(203) That is, the primary valve elastic portion **224c** may be configured so as not to be compressed by a pressure difference between the inside of the storage unit **400** and the inside of the clothes treatment agent pump unit **220** when the clothes treatment agent pump unit **220** is not operated.

(204) In addition, the primary valve elastic portion **224c** may be configured to be compressed by a pressure difference between the inside of the storage unit **400** and the inside of the clothes treatment agent pump unit **220** when the clothes treatment agent pump unit **220** is operated. The inlet port **224d** is a path through which the clothes treatment agent sucked into the check valve cylinder portion **416a**, **426a** flows into the primary valve cylinder portion **224a**. The inlet port **224d** may be formed through an outer circumference of the primary valve cylinder portion **224a**.

(205) The inlet port **224d** may be formed on the front side of the primary valve cylinder portion **224a**. When the primary valve cylinder portion **224a** is inserted into the first check valve cylinder portion **416a**, the inlet port **224d** may be located to communicate with the inner space of the check valve cylinder portion **416a**, **426a**.

(206) Accordingly, the clothes treatment agent stored in the storage unit **400** is sucked into the inner space of the check valve cylinder portion **416a**, **426a** through the intake port **416d**, **426d**. Thereafter, the sucked clothes treatment agent may be introduced into the inner space of the primary valve cylinder portion **224a** through the inlet port **224d**.

(207) The inlet port **224d** may be located below the lowest portion of a first bottom surface **431**. Accordingly, when the clothes treatment agent pump unit **220** is operated, the clothes treatment agent collected in a first collection space portion **436** may be smoothly introduced into the inlet port **224d**.

(208) With the configuration, an amount of clothes treatment agents remaining in the inner space of the storage container **410**, **420** may be minimized.

(209) The secondary pump valve **225** is configured to allow or block communication between the inner space of the pump valve coupling portion **223** and an inner space of the discharge portion **226**. The secondary pump valve **225** may be opened or closed according to a pressure difference between the inner space of the pump valve coupling portion **223** and the inner space of the discharge portion **226**.

(210) The secondary pump valve **225** is located between the primary pump valve **224** and the discharge portion **226**.

(211) Specifically, one side of the secondary pump valve **225**, namely, the front side thereof in some implementations is coupled to the rear side of the pump valve coupling portion **223**. In addition, the rear side of the secondary pump valve **225** is opened to communicate with the discharge portion **226**.

(212) When the clothes treatment agent pump unit **220** is operated, the secondary valve cap portion **225b** of the secondary pump valve **225** is moved to one side, namely, to the rear side in some implementations, so that the inner space of the secondary pump valve **225** and the inner space of the pump valve coupling portion **223** may communicate with each other.

(213) In addition, the inner space of the secondary pump valve **225** and the inner space of the discharge portion **226b** communicate with each other. Therefore, the clothes treatment agent may be introduced into the inner space of the discharge portion **226b**.

(214) The secondary pump valve **225** includes a secondary valve cylinder portion **225a**, a secondary valve cap portion **225b**, a secondary valve elastic portion **225c**.

(215) The secondary valve cylinder portion **225a** defines an outer side of the secondary pump valve **225**.

(216) An opening is formed on one side of the secondary valve cylinder portion **225a**, namely, an inner circumference of the front side thereof in some implementations. The opening may be opened or closed by the secondary valve cap portion **225b**.

(217) When the opening is opened, the inner space of the primary valve cylinder portion **224a** and the inner space of the secondary valve cylinder portion **225a** may be in communication with each other. When the opening is closed, the inner space of the primary valve cylinder portion **224a** and the inner space of the secondary valve cylinder portion **225a** are not in communication with each other.

(218) The opening of the secondary valve cylinder portion **225a** may be opened or closed by the secondary valve cap portion **225b**.

(219) The front side of the secondary valve cylinder portion **225a** is coupled to the pump valve coupling portion **223**. A sealing member may be provided on a coupled portion between the secondary valve cylinder portion **225a** and the pump valve coupling portion **223** to prevent a leakage of the clothes treatment agent through the coupled portion.

(220) The rear side of the secondary valve cylinder portion **225a** is coupled to the discharge portion **226**. A sealing member may be provided on a coupled portion between the secondary valve cylinder portion **225a** and the discharge portion **226** to prevent a leakage of the clothes treatment agent through the coupled portion.

(221) The secondary valve cylinder portion **225a** extends in the lengthwise direction. In some implementations, the secondary valve cylinder portion **225a** is formed in a cylindrical shape which has a circular cross section similar to the pump valve coupling portion **223** and extends in the lengthwise direction.

(222) A hollow portion is formed inside the secondary valve cylinder portion **225a**. The hollow portion penetrates from the front side to the rear side of the secondary valve cylinder portion **225a**. The hollow portion communicates with the openings formed on the front and rear sides of the secondary valve cylinder portion **225a**, respectively. The clothes treatment agent introduced into the pump valve coupling portion **223** may flow along the hollow portion.

(223) The secondary valve cap portion **225b** is configured to allow or block the communication between the inner space of the secondary valve cylinder portion **225a** and the inner space of the pump valve coupling portion **223**.

(224) The secondary valve cap portion **225b** may be provided with a body portion having a diameter corresponding to a diameter of the opening formed on the rear side of the secondary valve cylinder portion **225a**, and extending in the lengthwise direction. When the body portion is inserted into the opening, the communication between the inside of the secondary valve cylinder portion **225a** and the inside of the pump valve coupling portion **223** may be blocked.

(225) The secondary valve cap portion **225b** may be moved in the lengthwise direction, namely, in the back and forth in some implementations.

(226) In a state where a transfer force by the clothes treatment agent pump unit **220** is not applied, the secondary valve cap portion **225b** closes the opening formed on the front side of the secondary valve cylinder portion **225a**. In some examples, one side of the secondary valve cap portion **225b**, namely, the rear side thereof in some implementations is elastically supported by the secondary valve elastic portion **225c**.

(227) In addition, when the transfer force by the clothes treatment agent pump unit **220** is applied, the secondary valve cap portion **225b** opens the opening of the secondary valve cylinder portion **225a**. That is, the secondary valve cap portion **225b** may be moved to the rear side by the transfer force which exceeds an elastic force by the secondary valve elastic portion **225c**.

(228) The secondary valve elastic portion **225c** elastically supports the secondary valve cap portion **225b**. The secondary valve elastic portion **225c** may prevent an arbitrary movement of the

secondary valve cap portion **225b** in the lengthwise direction.

(229) The secondary valve elastic portion **225c** is located on one side of the secondary valve cap portion **225b** in the lengthwise direction, namely, on the rear side thereof in some implementations.

(230) One side of the secondary valve elastic portion **225c**, namely, the front side thereof in some implementations may be in contact with the rear end portion of the secondary valve cap portion **225b**. In addition, another side of the secondary valve elastic portion **225c**, namely, the rear side thereof in some implementations may be in contact with an inner circumference of the front side of the discharge portion **226**.

(231) The secondary valve elastic portion **225c** may be provided in any form capable of applying a stored restored force to the secondary valve cap portion **225b** as the secondary valve cap portion **225b** is moved to the rear side. In some implementations, the secondary valve elastic portion **225c** may be provided in the form of a coil spring.

(232) The secondary valve elastic portion **225c** may have a predetermined elastic modulus. A value of the elastic modulus may be determined depending on pressure for the clothes treatment agent pump unit **220** to pump the clothes treatment agent from the storage unit **400**.

(233) That is, the secondary valve elastic portion **225c** may be configured so as not to be compressed by a pressure difference between the inside of the storage unit **400** and the inside of the clothes treatment agent pump unit **220** when the clothes treatment agent pump unit **220** is not operated.

(234) In addition, the secondary valve elastic portion **225c** may be configured to be compressed by a pressure difference between the inside of the storage unit **400** and the inside of the clothes treatment agent pump unit **220** when the clothes treatment agent pump unit **220** is operated.

(235) The discharge portion **226** allows the secondary pump valve **225** to communicate with the clothes treatment agent supply unit **240**. The discharge portion **226** is located on one side of the secondary pump valve **225**, namely, on the rear side in some implementations.

(236) The discharge portion **226** is coupled to the secondary pump valve **225**. In some implementations, a diameter of one end portion of the secondary pump valve **225** facing the discharge portion **226** is larger than a diameter of the discharge portion **226** facing the secondary pump valve **225**.

(237) Therefore, the discharge portion **226** may be inserted into the one end portion of the secondary pump valve **225**. A sealing member for preventing an arbitrary leakage of the clothes treatment agent may be provided on a portion where the discharge portion **226** and the secondary pump valve **225** are coupled to each other.

(238) A hollow portion is formed inside the discharge portion **226**. The hollow portion communicates with the inner space of the secondary valve cylinder portion **225a**.

(239) Specifically, the hollow portion and the inner space of the secondary valve cylinder portion **225a** may be communicated or blocked as the secondary valve cap portion **225b** is moved in the lengthwise direction, namely, in the back and forth direction in some implementations.

(240) The clothes treatment agent supply unit **240** is connected to another side of the discharge portion **226** in the lengthwise direction, namely, to the rear side of the discharge portion **226** in some implementations. The clothes treatment agent supply unit **240** is provided with an inner space in which the clothes treatment agent flows.

(241) The hollow portion of the discharge portion **226** may communicate with the inner space of the clothes treatment agent supply unit **240**. The clothes treatment agent introduced into the discharge portion **226** may flow into the tub **170** through an opening formed through a lower side of the dispenser assembly **200** via the clothes treatment agent supply unit **240**.

(242) The fluid supply unit **230** supplies a fluid to the drawer **300**. The fluid supply unit **230** may communicate with an external fluid supply unit. For the communication, a hose member may be provided.

(243) The fluid supply unit **230** is located above the frame unit **210**. Also, the fluid supply unit **230**

may communicate with the drawer **300**. With the configuration, wash water may flow down to the drawer **300** by gravity even without receiving a separate transfer force.

(244) The fluid introduced into the fluid supply unit **230** may flow to the tub **170** through the opening formed through the lower side of the dispenser assembly **200** via the drawer **300**.

(245) During the flow, the clothes treatment agent may be dissolved in the fluid.

(246) The fluid supply unit **230** includes a first fluid flow path **231**, a second fluid flow path **232**, a first fluid discharge portion **233**, and a second fluid discharge portion **234**.

(247) The first fluid flow path **231** allows the first fluid discharge portion **233** to communicate with an external fluid supply unit. Specifically, the first fluid flow path **231** is a path through which a fluid introduced from the external fluid supply unit flows toward the first fluid discharge portion **233**.

(248) The second fluid flow path **232** allows the second fluid discharge portion **234** to communicate with the external fluid supply unit. Specifically, the second fluid flow path **232** is a path through which a fluid introduced from the external fluid supply unit flows toward the second fluid discharge portion **234**.

(249) The first fluid discharge portion **233** allows the first fluid flow path **231** to communicate with the drawer **300**. The fluid reaching the first fluid discharge portion **233** through the first fluid flow path **231** may be introduced into the drawer **300** through the first fluid discharge portion **233**.

(250) The first fluid discharge portion **233** may be formed in a flat plate shape having a predetermined area. In addition, a plurality of through holes may be formed through one side of the first fluid discharge portion **233** facing the drawer **300**.

(251) Therefore, the fluid introduced into the first fluid discharge portion **233** may be uniformly injected into the drawer **300**.

(252) The second fluid discharge portion **234** allows the second fluid flow path **232** to communicate with the drawer **300**. The fluid reaching the second fluid discharge portion **234** through the second fluid flow path **232** may be introduced into the drawer **300** through the second fluid discharge portion **234**.

(253) The second fluid discharge portion **234** may be formed in a flat plate shape having a predetermined area. In addition, a plurality of through holes may be formed through one side of the second fluid discharge portion **234** facing the drawer **300**.

(254) Therefore, the fluid introduced into the second fluid discharge portion **234** may be uniformly injected into the drawer **300**.

(255) In some implementations, the first fluid discharge portion **233** is located at the front side, compared with the second fluid discharge portion **234**. In addition, the first fluid discharge portion **233** may have the same area as an area of a manual introduction part **340**.

(256) Also, the second fluid discharge portion **234** may have the same area as an area of a housing accommodation part **350** or a clothes treatment agent housing **500**.

(257) The clothes treatment agent supply unit **240** is a passage through which the clothes treatment agent accommodated in the storage unit **400** flows toward the opening located on the lower side of the frame unit **210**.

(258) As will be described later, the clothes treatment agent to be automatically supplied may be accommodated in the storage unit **400**. The clothes treatment agent supply unit **240** allows the clothes treatment agent pump unit **220** to communicate with a lower space and the opening of the frame unit **210**, so that the clothes treatment agent may be supplied to the tub **170**.

(259) Specifically, one end portion of the clothes treatment agent supply unit **240** communicates with the discharge portion **226**. In addition, another end portion of the clothes treatment agent supply unit **240** communicates with a space which is defined as the lower space of the frame unit **210**, namely, an inner surface of the lower side of the frame unit **210** is spaced a predetermined distance apart from the drawer **300**.

(260) The clothes treatment agent supply unit **240** may be provided in any form capable of

communicating two or more different members.

(261) In addition, the clothes treatment agent supply unit **240** may be formed of a material that may be changed in shape to some extent for facilitating the discharge portion **226** to communicate with the inner space of the frame unit **210**. In some implementations, the clothes treatment agent supply unit **240** may be provided with a hose member formed of a flexible material.

(262) The clothes treatment agent accommodated in the storage unit **400** may be supplied to the lower space of the frame unit **210** through the clothes treatment agent supply unit **240** by the clothes treatment agent pump unit **220**.

(263) The clothes treatment agent supply unit **240** includes a first clothes treatment agent flow path **241** and a second clothes treatment agent flow path **242**.

(264) The first clothes treatment agent flow path **241** allows the discharge portion **226** provided on the first clothes treatment agent pump **221** to communicate with the lower space of the frame unit **210**. The first clothes treatment agent flow path **241** may supply the clothes treatment agent accommodated in the first storage container **410** into the lower space.

(265) The second clothes treatment agent flow path **242** allows the discharge portion **226** provided on the second clothes treatment agent pump **222** to communicate with the lower space of the frame unit **210**. The clothes treatment agent accommodated in the second storage container **420** may be supplied to the lower space through the second clothes treatment agent flow path **242**.

(266) Hereinafter, with reference to FIGS. **6** to **10**, the drawer **300** provided in the clothes treating machine **10** will be described in detail.

(267) The drawer **300** is filled with a clothes treatment agent, a fluid and the like for treating the clothes accommodated in the drum **171**.

(268) The user may expose the drawer **300** inserted in the dispenser assembly **200** by a predetermined distance using a grip portion **310**. Thereafter, the user may put or fill the clothes treatment agent for treating clothes into the drawer **300**.

(269) In addition, the clothes treatment agent accommodated in the storage unit **400** may be automatically supplied to the drawer **300**. This is achieved by the clothes treatment agent pump unit **220** and the clothes treatment agent supply unit **240** provided in the dispenser assembly **200**.

(270) The drawer **300** may be inserted into the inner space of the dispenser assembly **200**. Specifically, the drawer **300** may be inserted into the inner space of the dispenser assembly **200** through an opening formed through the front side of the dispenser assembly **200**.

(271) When the drawer **300** is inserted into the dispenser assembly **200**, the grip portion **310** provided on one side of the drawer **300**, namely, on the front side of the drawer **300** in some implementations is exposed to outside. The user may grip the grip portion **310** to expose the drawer **300** by a predetermined distance or detach it from the dispenser assembly **200**.

(272) A predetermined space is defined in the drawer **300**. The storage unit **400** may be accommodated in the predetermined space. A clothes treatment agent to be automatically supplied for performing a clothes treating process is accommodated in the storage unit **400**.

(273) When the drawer **300** is inserted into the dispenser assembly **200**, the check valve **416**, **426** provided on one side of the storage unit **400** inserted into the drawer **300**, namely, on the rear side of the storage unit **400**, comes in contact and communicates with the primary pump valve **224**.

(274) With the configuration, the drawer **300** and the dispenser assembly **200** communicate with each other. Also, the dispenser assembly **200** communicates with the tub **170**.

(275) Accordingly, the clothes treatment agent accommodated in the storage unit **400** may be supplied to the tub **170** through the check valve **416**, **426**.

(276) The drawer **300** extends in the lengthwise direction, namely, in the back and forth direction in some implementations. The shape of the drawer **300** may change depending on the shape of the storage unit **400** inserted into the dispenser assembly **200** and the drawer **300**.

(277) The drawer **300** may be inserted into the dispenser assembly **200** in a sliding manner. Also, the drawer **300** may be slid out of the dispenser assembly **200** to be exposed by a predetermined

distance or completely detached.

(278) For a stable sliding movement of the drawer **300**, guide members may be provided on both sides of the drawer **300**, namely, on left and right sides of the drawer **300** in some implementations.

(279) The drawer **300** includes a grip portion **310**, a drawer frame **320**, a rear end part **330**, a manual introduction part **340**, and a housing accommodation part **350**.

(280) The grip portion **310** is a part that a user grips to insert the drawer **300** into the dispenser assembly **200** or to pull the drawer **300** out of the dispenser assembly **200**.

(281) The grip portion **310** is located on one side of the drawer **300** in the lengthwise direction, namely, on the front side of the drawer **300** in some implementations. When the drawer **300** is inserted into the dispenser assembly **200**, the grip portion **310** is located above the front surface **120**. In addition, the drawer **300** is located on a left side of the manipulation unit **160**, which is for convenience of the user, as described above.

(282) The grip portion **310** includes a front surface **311**, a handle groove **312**, and a rear surface **313**.

(283) The front surface **311** defines one side of the grip portion **310**, namely, the front side of the grip portion **310** in some implementations. When the drawer **300** is inserted into the dispenser assembly **200**, the front surface **311** is exposed to the outside of the clothes treating machine **10**.

(284) Also, the front surface **311** is a part brought into direct contact with the user's body.

Therefore, the front surface **311** may be formed seamlessly to prevent an occurrence of a safety accident.

(285) The handle groove **312** is a space in which the user puts his/her fingers to grip the grip portion **310**. The handle groove **312** is recessed by a predetermined distance into the front surface **311**.

(286) In some implementations, the handle groove **312** extends in the left and right direction. This is to facilitate the fingers except for a thumb to be inserted into the groove.

(287) The rear surface **313** defines one side of the grip portion **310**, namely, the rear side of the grip portion **310** in some implementations. When the drawer **300** is inserted into the dispenser assembly **200**, the rear surface **313** may be brought into contact with the housing frame **110**.

(288) The drawer frame **320** is coupled to the rear surface **313**. Accordingly, it may be said that the rear surface **313** supports the drawer frame **320**.

(289) The drawer frame **320** forms a framework of the drawer **300**. The drawer frame **320** extends in the lengthwise direction, namely, in the back and forth direction in some implementations.

(290) One side of the drawer frame **320** in the lengthwise direction, namely, the front side thereof in some implementations is coupled to the rear surface **313**.

(291) Another side of the drawer frame **320** in the lengthwise direction, namely, the rear side thereof in some implementations communicates with the clothes treatment agent pump unit **220**.

Also, the rear side of the drawer frame **320** may be electrically connected to the manipulation unit **160**.

(292) A predetermined space is defined inside the drawer frame **320**. The storage unit **400** may be detachably inserted into the space.

(293) The drawer frame **320** includes a first outer wall **321**, a second outer wall **322**, an inner wall **323**, a bottom portion **324**, and a rear wall **325**.

(294) The first outer wall **321** defines an outer circumference of one side of the drawer frame **320** in the lengthwise direction, namely, an outer circumference of a left side in some implementations. The first outer wall **321** extends in the lengthwise direction.

(295) One side of the first outer wall **321** in the lengthwise direction, namely, the front side thereof in some implementations extends up to the rear surface **313**. Another side of the first outer wall **321** in the lengthwise direction, namely, the rear side in some implementations may extend up to the rear wall **325**.

(296) The first outer wall **321** may be configured by a plurality of planes. That is, the first outer

wall **321** may include a first plane adjacent to the grip portion **310**, a second plane extending rearward at a predetermined angle with respect to the first plane, and a third plane extending rearward at a predetermined angle with respect to the second plane.

(297) The second outer wall **322** is located at one side opposite to the first outer wall **321**, namely, at a right side of the first outer wall **321** in some implementations. The first outer wall **321** is spaced apart from the second outer wall **322** by a predetermined distance.

(298) The second outer wall **322** defines an outer circumference of one side of the drawer frame **320** in the lengthwise direction, namely, an outer circumference of a right side in some implementations. Since structure and function of the second outer wall **322** are the same as those of the first outer wall **321**, repeated description will be omitted.

(299) A first step portion **321a** and a second step portion **322a** may be formed respectively on one surface of the first outer wall **321** and one surface of the second outer wall **322**, namely, their upper surfaces in some implementations. The step portions **321a** and **322a** prevent the drawer **300** from sagging downward when the drawer **300** is exposed by a predetermined distance.

(300) In some examples, each step portion **321a** and **322a** may be formed at the same position in the lengthwise direction. In addition, each step portion **321a** and **322a** may protrude upward by a predetermined distance.

(301) A predetermined space is defined between the first outer wall **321** and the second outer wall **322** by being surrounded by the first outer wall **321** and the second outer wall **322**. The space is divided to define a manual introduction part **340** and a housing accommodation part **350**.

(302) As described above, the first outer wall **321** and the second outer wall **322** may be configured by a plurality of planes. The plurality of planes may extend from the front to rear sides at predetermined angles with respect to one another.

(303) Accordingly, the space surrounded by the first outer wall **321** and the second outer wall **322** has different widths in the left and right direction, namely, in the back and forth direction.

(304) In some implementations, a space surrounded by the first planes of the respective outer walls **321** and **322** has the widest width, a space surrounded by the second planes has a smaller width than the widest width, and a space surrounded by the third planes has the smallest width.

(305) That is, the width of the space decreases from the front to the rear of the drawer **300**. This is to facilitate the drawer **300** to be pushed in and drawn out.

(306) Each of the first outer wall **321** and the second outer wall **322** extends in the lengthwise direction, namely, in the back and forth direction in some implementations.

(307) One end portion of each of the first outer wall **321** and the second outer wall **322** in the lengthwise direction, namely, a front end portion in some implementations may come in contact with the grip portion **310**.

(308) Another end portion of each of the first outer wall **321** and the second outer wall **322**, namely, a rear end portion in some implementations may extend up to the rear end part **330**. The rear end portions of the first outer wall **321** and the second outer wall **322** may be located to surround openings **332** in a widthwise direction, namely, in the left and right direction in some implementations.

(309) The another end portions of the first outer wall **321** and the second outer wall **322**, namely, their rear end portions in some implementations may be bent to be rounded toward each other (see FIG. **10**).

(310) The bent portions may partially support the rear end portion of the storage unit **400**. The rear wall **325** is located in a space defined between the bent portions.

(311) Spaces defined between the bent portions and the rear wall **325** may be defined as openings **332** constituting the rear end part **330** of the drawer **300**.

(312) The bent portions may be connected to the rear wall **325** by a partition member **331**. That is, the one end portion of the first outer wall **321** and the one end portion of the second outer wall **322** facing the rear wall **325** may be connected by the partition member **331**.

(313) In other words, the partition member **331** extends from the rear end portion of the first outer wall **321** toward the rear end portion of the second outer wall **322**.

(314) A distance-limiting protrusion **326** may be formed on the bent portion. In some implementations, the distance-limiting protrusion **326** protrudes from an upper side of the bent portion of the first outer wall **321** by a predetermined distance.

(315) The distance-limiting protrusion **326** may be brought into contact with the clothes treatment agent pump unit **220** and the like when the drawer **300** is inserted into the dispenser assembly **200**, thereby limiting an insertion distance.

(316) Therefore, when the drawer **300** is inserted into the dispenser assembly **200**, the distance by which the check valve **416**, **426** is moved by the primary pump valve **224** may be adjusted appropriately.

(317) The inner wall **323** is located to be spaced a predetermined distance apart from the first outer wall **321** and the second outer wall **322** in the space surrounded by the first outer wall **321** and the second outer wall **322**. The inner wall **323** divides the space surrounded by the first outer wall **321** and the second outer wall **322** into two or more spaces.

(318) That is, the space between the first outer wall **321** and the second outer wall **322** may be divided into an inner space surrounded by the inner wall **323**, and an outer space surrounded by the first outer wall **321**, the second outer wall **322**, and the inner wall **323**. That is, the outer space may be formed to surround the inner wall **323**.

(319) The inner space of the divided spaces may be defined as the housing accommodation part **350**. That is, the clothes treatment agent housing **500** is detachably accommodated in the inner space.

(320) The outer space of the divided spaces may be defined as an accommodation portion for the storage unit **400**. That is, the storage unit **400** is detachably accommodated in the outer space.

(321) As will be described later, the storage unit **400** includes a first storage container **410** and a second storage container **420**. Accordingly, the first storage container **410** and the second storage container **420** may be accommodated in the outer space defined in the widthwise direction of the housing accommodation part **350**, namely, in the left and right sides of the housing accommodation part **350** in some implementations.

(322) When the storage unit **400** is accommodated in the outer space, each surface of the storage unit **400** may come in contact with the first outer wall **321**, the second outer wall **322**, and the inner wall **323**. Therefore, the storage unit **400** may not be moved arbitrarily after being inserted into the outer space.

(323) The inner wall **323** may be configured by a plurality of planes. In some implementations, the inner wall **323** includes first plane portions disposed to face each other in the left and right direction, second plane portions disposed to face each other in the lengthwise direction, and third plane portions connecting the first plane portions and the second plane portions and each formed to be rounded.

(324) The inner wall **323** may extend in the lengthwise direction, namely, in the back and forth direction in some implementations. That is, the first plane portion may be longer than the second plane portion in length.

(325) The inner space surrounded by the inner wall **323** may be further divided into a manual introduction part **340** and a housing accommodation part **350**. The manual introduction part **340** and the housing accommodation part **350** may be partitioned by a partition plate **342**.

(326) The inner wall **323** may be lower than a storage body portion **411**, **421** of the storage unit **400**. That is, a storage cover portion **412**, **422** of the storage unit **400** inserted in the outer space may be configured to partially cover an upper side of the inner wall **323**.

(327) With the configuration, the clothes treatment agent injected into the manual introduction part **340** is not introduced into a space between the storage unit **400** and the inner wall **323**. The user may easily detach the storage unit **400** by gripping such a part of the storage cover portion **412**,

422.

(328) The bottom portion **324** defines one side of the drawer frame **320**, namely, a lower side in some implementations. The bottom portion **324** may support the storage unit **400** accommodated in the outer space from a lower side.

(329) Of the bottom portion **324**, the inner space surrounded by the inner wall **323** may be defined by an inclined portion **341** and a lower surface **351**. In particular, a fluid outlet port **359** is formed through the lower surface **351**, so that the inner space and the lower space of the dispenser assembly **200** may communicate with each other.

(330) The bottom portion **324** extends from one side to another side in the lengthwise direction, namely, from the front to the rear in some implementations. The bottom portion **324** may extend at a predetermined tilt. This is because a lower surface of the storage body portion **411**, **421** of the storage unit **400** is formed to be inclined.

(331) As the bottom portion **324** extends to be inclined, the clothes treatment agent accommodated in the storage unit **400** may naturally move from the front to the rear.

(332) The rear wall **325** defines an outer circumference of one side of the drawer frame **320** in the lengthwise direction, namely, an outer circumference of the rear side in some implementations. The rear wall **325** supports the rear side of the storage unit **400** accommodated in the outer space.

(333) The rear wall **325** may extend from the bottom portion **324**. Specifically, the rear wall **325** may extend from one end portion of the bottom portion **324**, namely, from a rear end portion in some implementations at a predetermined angle with respect to the bottom portion **324**. In some implementations, the predetermined angle may be a right angle.

(334) The rear wall **325** may be disposed to be spaced apart from the first outer wall **321** and the second outer wall **322** by a predetermined distance. Specifically, the openings **332** are formed between the rear wall **325** and the first and second outer walls **321** and **322**, respectively. A sensor portion **417**, **427** and the check valve **416**, **426** provided at the storage unit **400** protrude rearward by a predetermined distance through the opening **332**.

(335) The rear wall **325** may be connected to the first outer wall **321** and the second outer wall **322**, respectively, through the partition member **331**. The partition member **331** may divide the opening **332** into a check valve opening **332a** and a sensor opening **332b**.

(336) The rear end part **330** is a portion where one side of the storage unit **400** inserted in the drawer **300**, namely, the rear side of the storage unit **400** in some implementations, communicates with the outside of the drawer **300**. The sensor portion **417**, **427** and the check valve **416**, **426** provided on the rear side of the storage unit **400** are exposed to the outside through the rear end part **330**.

(337) The rear end part **330** is located on one side of the drawer frame **320** in the lengthwise direction, namely, on the rear side in some implementations.

(338) The check valve **416**, **426** communicates with the clothes treatment agent pump unit **220** through an exposed portion of the storage unit **400**. Also, the sensor portion **417**, **427** provided at the storage unit **400** may be electrically connected to an external control unit through the exposed portion of the storage unit **400**.

(339) The rear end part **330** may be located between the bent portions of the first outer wall **321** and the second outer wall **322**. That is, the rear end part **330** is located on one side of the drawer frame **320** in the lengthwise direction, namely, on the rear side in some implementations.

(340) The rear end part **330** includes a partition member **331** and an opening **332**.

(341) The partition member **331** connects the bent portions of the first outer wall **321** and the second outer wall **322** to the rear wall **325**. The partition member **331** may be provided in plurality.

(342) Further, the partition member **331** is located in the opening **332**. The partition members **331** partition the opening **332** formed between the first outer wall **321** and the rear wall **325** and the opening **332** formed between the second outer wall **322** and the rear wall **325** in a height direction, namely, in an up and down direction in some implementations.

(343) In some implementations, the partition member **331** may partition the opening **332** into at least two parts in the height direction.

(344) In some implementations, the partition member **331** partitions the opening **332** into the lower check valve opening **332a** and the upper sensor opening **332b**.

(345) The partition member **331** extends in the widthwise direction of the drawer frame **320**. In some implementations, the partition member **331** may connect the first outer wall **321**, the second outer wall **322**, and the rear wall **325**.

(346) Accordingly, rigidity of the structure on the rear side of the drawer frame **320** may be reinforced.

(347) In addition, the partition member **331** may partition the opening **332** into the check valve opening **332a** and the sensor opening **332b** so as to limit a direction of inserting or separating the storage unit **400**.

(348) In some implementations, the partition member **331** may be configured as a plate extending in the left and right direction. In some examples, the partition member **331** may be provided in the form of a rod or the like extending in the left and right direction.

(349) The opening **332** is a space where the check valve **416, 426** and the sensor portion **417, 427** are exposed to the outside. The opening **332** is formed open. The opening **332** allows the inner space of the drawer frame **320** to communicate with the outside.

(350) The openings **332** are formed as the space between the first outer wall **321** and the second outer wall **322** spaced apart from each other is divided by the rear wall **325**. That is, the openings **332** are formed between the first outer wall **321** and the rear wall **325** and between the second outer wall **322** and the rear wall **325**, respectively.

(351) Each of the openings **332** may be divided into the check valve opening **332a** and the sensor opening **332b** by the corresponding partition member **331**.

(352) The check valve opening **332a** is a space through which the check valve **416, 426** is inserted. The pump valve **224, 225** of the clothes treatment agent pump unit **220** may be coupled to communicate with the check valve **416, 426** through the check valve opening **332a**.

(353) The check valve opening **332a** is located below the sensor opening **332b**. This is because the check valve **416, 426** is located on the lower side of the rear of the storage unit **400**.

(354) The sensor opening **332b** is a space through which the sensor portion **417, 427** and a sealing portion **418, 428** configured to cover the sensor portion **417, 427** are inserted. An external control unit may be electrically connected to the sensor portion **417, 427** through the sensor opening **332b**.

(355) The sensor opening **332b** is located above the check valve opening **332a**. This is because the sensor portion **417, 427** is located on an upper side of the rear of the storage unit **400**.

(356) When the check valve **416, 426** is inserted into the check valve opening **332a**, the check valve **416, 426** more protrudes toward the rear side than the partition member **331**.

(357) Similarly, when the sensor portion **417, 427** is inserted into the sensor opening **332b**, the sensor portion **417, 427** more protrudes toward the rear side than the partition member **331**.

(358) The opening **332** may be partitioned into the check valve opening **332a** and the sensor opening **332b** by the partition member **331**. As the check valve **416, 426** is exposed to the outside, the direction of inserting and separating the storage unit **400** may be limited.

(359) That is, the sensor portion **417, 427** is first inserted into the sensor opening **332b**, and then the check valve **416, 426** is inserted into the check valve opening **332a**. Conversely, the check valve **416, 426** is first separated from the check valve opening **332a**, and then the sensor portion **417, 427** is separated from the sensor opening **332b**. This will be described in detail later.

(360) The manual introduction part **340** is a space in which the clothes treatment agent is directly (manually) introduced by the user. One side of the manual introduction part **340**, namely, an upper side thereof in some implementations may be opened so that the user may put the clothes treatment agent in the manual introduction part **340** through the opened portion.

(361) The clothes treatment agent may be filled in the manual introduction part **340** for each

clothes treating process.

(362) The manual introduction part **340** may be defined as a part of the inner space surrounded by the inner wall **323**. That is, the manual introduction part **340** is defined as a space formed in a front part of the inner space.

(363) The manual introduction part **340** includes an inclined portion **341** and a partition plate **342**.

(364) The inclined portion **341** defines a lower surface of the manual introduction part **340**.

(365) The inclined portion **341** is formed to be inclined toward one side in the lengthwise direction, namely, toward the rear side in some implementations.

(366) Therefore, the clothes treatment agent supplied to the manual introduction part **340** may flow to the rear side along the inclined portion **341**.

(367) The partition plate **342** partitions the inner space surrounded by the inner wall **323**. The inner space may be divided into the manual introduction part **340** and the housing accommodation part **350**.

(368) In some implementations, the partition plate **342** is configured as a plate extending in the width direction of the inner wall **323**. The partition plate **342** may be provided in any form that allows the user to recognize a boundary between the manual introduction part **340** and the housing accommodation part **350**.

(369) The partition plate **342** is spaced apart from the inclined portion **341** by a predetermined distance. That is, a predetermined space is defined between the partition plate **342** and the inclined portion **341**. The clothes treatment agent supplied to the manual introduction part **340** may flow to the housing accommodation part **350** through the predetermined space.

(370) The housing accommodation part **350** is located at the rear side of the manual introduction part **340**. The manual introduction part **340** may communicate with the housing accommodation part **350**.

(371) Therefore, the clothes treatment agent supplied to the manual introduction part **340** may flow to the housing accommodation part **350**. The clothes treatment agent introduced into the housing accommodation part **350** may flow out of the drawer **300** through the fluid outlet port **359**.

(372) The clothes treatment agent housing **500** is accommodated in the housing accommodation part **350**. Specifically, the clothes treatment agent housing **500** is accommodated in the housing accommodation part **350** in a manner of being spaced a predetermined distance apart from a rear surface and the lower surface **351** of the housing accommodation part **350**.

(373) The housing accommodation part **350** is defined by dividing the inner space surrounded by the inner wall **323**. Specifically, the housing accommodation part **350** may correspond to a space excluding the manual introduction part **340** from the spaces which are defined by dividing the inner space by the partition plate **342**.

(374) The housing accommodation part **350** communicates with the manual introduction part **340**. The clothes treatment agent supplied to the manual introduction part **340** may flow to the housing accommodation part **350**.

(375) The housing accommodation part **350** communicates with the outside of the drawer **300**. The clothes treatment agent supplied to the clothes treatment agent housing **500** and the clothes treatment agent supplied to the manual introduction part **340** may be supplied to the tub **170** together with a fluid.

(376) The housing accommodation part **350** is located at one side of the manual introduction part **340**, namely, at the rear side of the manual introduction part **340** in some implementations.

(377) The housing accommodation part **350** includes a lower surface **351**, a support rod **352**, a support pin **353**, a support boss portion **354**, a protruding portion **355**, a space portion **356**, a drop prevention member **357**, a discharge space portion **358**, and a fluid outlet port **359**.

(378) The lower surface **351** defines one surface of the housing accommodation part **350**, namely, a bottom of the housing accommodation part **350** in some implementations.

(379) The lower surface **351** may extend from the inclined portion **341**. That is, the lower surface

351 may be continuously (or integrally) formed with the inclined portion **341**. The clothes treatment agent moved along the inclined portion **341** may also flow along the lower surface **351**.

(380) The lower surface **351** may extend at a predetermined angle with respect to the inclined portion **341**. In some examples, the lower surface **351** may be inclined toward one side of the lower surface **351** in the lengthwise direction, namely, to the rear side in some implementations.

(381) The fluid outlet port **359** is formed through the lower surface **351**. Specifically, the fluid outlet port **359** may be formed through the lower surface **351** at a position biased toward the rear side of the lower surface **351**.

(382) The support pin **353** protrudes from the lower surface **351** by a predetermined distance.

(383) The support boss portion **354** protrudes by a predetermined distance from one side of the lower surface **351** opposite to the grip portion **310**, namely, from the rear side of the lower surface **351** in some implementations. Specifically, the support boss portion **354** protrudes from the lower surface **351** by a predetermined distance so as to have a predetermined tilt with respect to the lower surface **351**.

(384) The support rod **352** is positioned at a predetermined distance from the inner wall **323** of one side, namely, from the rear second plane portion of the inner wall **323** in the illustrated examples. The support rod **352** is located inside the housing accommodation part **350**.

(385) When the clothes treatment agent housing **500** is accommodated in the housing accommodation part **350**, a support protrusion surface **511** of the clothes treatment agent housing **500** is seated on the support rod **352**. Accordingly, the front side of the clothes treatment agent housing **500** may be stably supported by the support rod **352**.

(386) The support rod **352** may extend to cross the housing accommodation part **350** in the width direction. That is, the support rod **352** extends between the second plane portions facing each other among those plane portions of the inner wall **323**.

(387) In some implementations, the support rod **352** is cylindrical, but may have any shape on which the support protrusion surface **511** may be seated.

(388) The support pin **353** supports the lower side of the accommodated clothes treatment agent housing **500**. The support pin **353** protrudes from the lower surface **351** by a predetermined distance.

(389) The support pin **353** may be biased toward the rear side in the lengthwise direction of the housing accommodation part **350**. That is, the support pin **353** may be located closer to the second plane portion, which is located at the rear among those plane portions of the inner wall **323**, than to the support rod **352**.

(390) When the clothes treatment agent housing **500** is accommodated in the housing accommodation part **350**, a second portion **510b** of an outer circumferential surface **510** of the clothes treatment agent housing **500** is seated on the support pin **353** in a contact manner.

(391) Accordingly, the lower side of the clothes treatment agent housing **500** may be stably supported by the support pin **353**.

(392) Protruding portions **355** are formed on an upper side of the support boss portion **354**. Accordingly, the space portion **356** defined between the protruding portions **355** is also located on the upper side of the support boss portion **354**.

(393) In addition, the fluid outlet port **359** is formed at one side of the support boss portion **354**, namely, at the front side in some implementations.

(394) One surface of the support boss portion **354**, namely, an upper surface thereof in some implementations is formed to be inclined. Specifically, the one surface of the support boss portion **354** is formed such that a height of one side thereof facing the fluid outlet port **359** is lower than a height of another side facing the second plane portion, which is located at the rear among those plane portions of the inner wall **323**.

(395) Accordingly, when the clothes treatment agent accommodated in the clothes treatment agent housing **500** overflows, it may flow toward the fluid outlet port **359** along the upper surface of the

support boss portion **354**.

(396) An alignment pin insertion groove **354a** is recessed in the support boss portion **354**. An alignment pin **512** of the clothes treatment agent housing **500** is inserted and seated in the alignment pin insertion groove **354a**.

(397) The alignment pin insertion groove **354a** is recessed by a predetermined distance into one surface of the support boss portion **354**, namely, into the upper surface of the support boss portion **354** in some implementations. In some implementations, the alignment pin insertion groove **354a** is provided by two spaced apart from each other by a predetermined distance.

(398) A recessed distance of each alignment pin insertion groove **354a** and a spaced distance between the plurality of alignment pin insertion grooves **354a** may change depending on a protruded distance of each alignment pin **512** and a spaced distance between the alignment pins **512**.

(399) As the alignment pins **512** are inserted into the alignment pin insertion grooves **354a**, the clothes treatment agent housing **500** seated on the support boss portion **354** does not fluctuate in the left and right direction.

(400) The protruding portion **355** is configured such that the clothes treatment agent housing **500** is spaced a predetermined distance apart from the inner wall **323** surrounding the housing accommodation part **350**. Such spacing results in defining the space portion **356**.

(401) The protruding portion **355** protrudes by a predetermined distance from one side of the inner wall **323** surrounding the housing accommodation part **350**, namely, from the second plane portion located at the rear in some implementations. Further, a lower side of the protruding portion **355** comes in contact with the support boss portion **354**.

(402) In some implementations, the protruding portion **355** includes a first surface **355a** brought into contact with the spacing protrusion **530** of the clothes treatment agent housing **500**. The first surface **355a** extends in the up and down direction. A lower end portion of the first surface **355a** may extend to come in contact with the upper surface of the support boss portion **354**.

(403) A second surface **355b** of the protruding portion **355** extends from an upper end portion of the first surface **355a** to one side of the inner wall **323** at a predetermined angle. The second surface **355b** is formed to be inclined toward the clothes treatment agent housing **500**. That is, the second surface **355b** is formed such that a front side thereof is higher than a rear side.

(404) Accordingly, when the clothes treatment agent accommodated in the clothes treatment agent housing **500** overflows, it may flow toward the fluid outlet port **359** along the second surface **355b**.

(405) In some implementations, the protruding portion **355** is provided in plurality. The plurality of protruding portions **355** are spaced apart from each other by a predetermined distance. Positions and a spaced distance of the protruding portions **355** may change depending on positions and a spaced distance of spacing protrusions **530** of the clothes treatment agent housing **500**.

(406) The space portion **356** is a space in which the clothes treatment agent overflowed from the clothes treatment agent housing **500** flows. The space portion **356** may correspond to a space which is defined as the plurality of protruding portions **355** are spaced apart from each other. In some implementations, the space portion **356** may correspond to a space which is defined as the clothes treatment agent housing **500** and the rear second plane portion of the inner wall **323** are spaced apart from each other due to at least one of the protruding portion **355** or the spacing protrusion **530**.

(407) The space portion **356** communicates with the discharge space portion **358**. The clothes treatment agent introduced into the space portion **356** may flow to the discharge space portion **358**.

(408) With the configuration, the clothes treatment agent overflowed from the clothes treatment agent housing **500** flows into the rear space portion **356**. Therefore, the overflowed clothes treatment agent does not flow into the outer space located at one side of the housing accommodation part **350**, namely, at the rear side in some implementations.

(409) Accordingly, contamination or spoiling of appearance, which may occur as the clothes

treatment agent remains in the drawer frame **320** and in the storage unit **400**, may be prevented. This will be described in detail later.

(410) The drop prevention member **357** limits a distance by which the drawer **300** is drawn out of the dispenser assembly **200**.

(411) Specifically, when the drawer **300** is inserted into the dispenser assembly **200**, a stopping jaw protruding from one side of the drop prevention member **357**, namely, from a rear side in some implementations, is engaged with the dispenser assembly **200**.

(412) Therefore, when the drawer **300** is slid out of the dispenser assembly **200** without a separate operation, the drawn-out distance of the drawer **300** is limited by the stopping jaw.

(413) When the user desires to completely detach the drawer **300**, a portion of one side of the drop prevention member **357**, namely, the front side in some implementations, may be pressed or pulled, so that the engaged state between the stopping jaw and the dispenser assembly **200** may be released.

(414) Accordingly, when the user desires to put the clothes treatment agent, the drawn-out distance of the drawer **300** is limited, result in enhancing the user's convenience and preventing a safety accident.

(415) The discharge space portion **358** is a space in which the clothes treatment agent is collected to be supplied to the tub **170**. The discharge space portion **358** may be defined as a space surrounded by the inner wall **323**, the lower surface **351**, and the support boss portion **354**.

(416) The clothes treatment agent accommodated in the storage unit **400** may be introduced into the discharge space portion **358** through the clothes treatment agent supply unit **240**.

(417) The clothes treatment agent supplied to the manual introduction part **340** or the clothes treatment agent housing **500** may also be introduced into the discharge space portion **358**.

(418) The fluid supplied through the fluid supply unit **230** also flows into the discharge space portion **358** through the manual introduction part **340** and the clothes treatment agent housing **500**.

(419) That is, various materials for treating clothes and a fluid for dissolving the materials may be introduced into the discharge space portion **358**.

(420) The discharge space portion **358** communicates with the tub **170**. The clothes treatment agent and the fluid introduced into the discharge space portion **358** may flow toward the tub **170** through the fluid outlet port **359** formed through the lower side of the discharge space portion **358**.

(421) The lower surface **351** defining a front lower side of the discharge space portion **358** is formed to be inclined toward the fluid outlet port **359**. Accordingly, the clothes treatment agent supplied through the manual introduction part **340** and the clothes treatment agent housing **500** flows from the discharge space portion **358** toward the fluid outlet port **359**.

(422) In addition, an upper surface of the support boss portion **354** formed on the rear side of the housing accommodation part **350** is also inclined toward the fluid outlet port **359**. Accordingly, the clothes treatment agent which has been overflowed from the clothes treatment agent housing **500** and introduced into the space portion **356** may also be moved toward the fluid outlet port **359**.

(423) The fluid outlet port **359** is a path through which the clothes treatment agent and the fluid collected in the discharge space portion **358** are supplied to the tub **170**. The fluid outlet port **359** may be formed in a shape of a through hole.

(424) The fluid outlet port **359** communicates with the tub **170**. For the communication, a hose member may be provided.

(425) The fluid outlet port **359** communicates with the discharge space portion **358**. The fluid outlet port **359** is formed through the lower side of the discharge space portion **358**. Accordingly, the clothes treatment agent and the fluid collected in the discharge space portion **358** flow toward the fluid outlet port **359**.

(426) Hereinafter, with reference to FIGS. **11** to **14**, the storage unit **400** provided in the clothes treating machine **10** will be described in detail.

(427) The storage unit **400** accommodates and stores a clothes treatment agent to carry out a

clothes treating process. The clothes treatment agent stored in the storage unit **400** may be in a liquid phase.

(428) The clothes treatment agent accommodated in the storage unit **400** may be automatically supplied to the tub **170** according to a clothes treating process input by the user through the manipulation unit **160**. Accordingly, the clothes treatment agent accommodated in the storage unit **400** may be referred to as an “automatically-supplied clothes treatment agent”.

(429) The storage unit **400** extends in the lengthwise direction. The storage unit **400** may be formed in a shape corresponding to the dispenser assembly **200** and the drawer **300**.

(430) The storage unit **400** is accommodated in the drawer **300**. Specifically, the storage unit **400** is inserted into the predetermined space defined inside the drawer frame **320**.

(431) The storage unit **400** may be inserted at a predetermined angle with respect to the drawer **300** in the lengthwise direction. Specifically, one side of the storage unit **400** facing the rear end part **330** is inserted first, and another side of the storage unit **400** facing the grip portion **310** is inserted later.

(432) That is, the rear side of the storage unit **400** is first inserted into the rear end part **330** formed on the rear side of the drawer **300**. Then, the front side of the storage unit **400** may be inserted into the front side of the drawer **300**.

(433) The storage unit **400** may be separated or detached from the drawer **300** at a predetermined angle with respect to the drawer **300** in the lengthwise direction. Specifically, the another side of the storage unit **400** facing the grip portion **310** is separated first, and the one side of the storage unit **400** facing the rear end part **330** is separated later.

(434) That is, the front side of the storage unit **400** is first separated from the front side of the drawer **300**. Then, the rear side of the storage unit **400** may be separated from the rear side and the rear end part **330** of the drawer **300**.

(435) The storage unit **400** may be provided in plurality. In some implementations, the storage unit **400** includes a first storage container **410** and a second storage container **420**. The clothes treatment agent may be accommodated in each of the storage containers **410** and **420**.

(436) In particular, detergent or softener may be accommodated in each of the storage containers **410** and **420**. This results from the fact that detergent or softener is most frequently used to perform the clothes treating process.

(437) The storage unit **400** communicates with the dispenser assembly **200**. When the drawer **300** with the storage unit inserted therein is pushed into the dispenser assembly **200**, the check valve **416**, **426** provided on the rear side of the storage unit **400** communicate with the clothes treatment agent pump unit **220**. Accordingly, the clothes treatment agent stored in the storage unit **400** may be supplied to the tub **170** via the drawer **300** by means of the clothes treatment agent pump unit **220**.

(438) The storage unit **400** inserted in the drawer **300** is surrounded by the outer walls **321** and **322** and the inner wall **323** of the drawer frame **320**. The rear side of the storage unit **400** is partially surrounded by the rear wall **325**.

(439) The storage unit **400** includes a first storage container **410**, a second storage container **420** and a discharge inclined portion **430**.

(440) The first storage container **410** and the second storage container **420** each store the clothes treatment agent therein. The stored clothes treatment agent may be supplied to the tub **170** through the clothes treatment agent pump unit **220**. The first storage container **410** and the second storage container **420** are located adjacent to each other in a state accommodated in the drawer **300**.

(441) A predetermined space is defined inside each of the first storage container **410** and the second storage container **420**. The clothes treatment agent is accommodated in each of the spaces.

(442) In some implementations, one of detergent and softener may be accommodated inside the first storage container **410** and another may be accommodated inside the second storage container **420**.

(443) In some implementations, the detergent may be accommodated in the first storage container

410. In some examples, the first storage container **410** may have a larger volume than the second storage container **420**. In some examples, a larger amount of detergent may be used than softener during a clothes treating process. In some examples, the softener may be accommodated in the second storage container **420**.

(444) In some implementations, the first storage container **410** and the second storage container **420** may have the same or like structure and function to each other, except for the fact that the first storage container **410** and the second storage container **420** accommodate different types of clothes treatment agents and have partially different shapes.

(445) Therefore, the first storage container **410** and the second storage container **420** will be described together to avoid redundant description.

(446) The first storage container **410** and the second storage container **420** may be accommodated in a space defined in the drawer frame **320**. In some implementations, the first storage container **410** is accommodated in a space formed in a left side of the drawer frame **320** (see FIG. 6). Also, the second storage container **420** is accommodated in a space defined in a right side of the drawer frame **320**.

(447) The first storage container **410** includes a first storage body portion **411**, a first storage cover portion **412**, a first detachment/attachment protrusion **413**, a first storage cap portion **414**, and a first through hole **415**, a first check valve **416**, a first sensor portion **417**, and a first sealing portion **418**.

(448) Likewise, the second storage container **420** includes a second storage body portion **421**, a second storage cover portion **422**, a second detachment/attachment protrusion **423**, a second storage cap portion **424**, and a second through hole **425**, a second check valve **426**, a second sensor portion **427**, and a second sealing portion **428**.

(449) The storage body portions **411** and **421** define spaces in which the clothes treatment agent is accommodated. The storage body portions **411** and **421** extend in the lengthwise direction, namely, in the back and forth direction in some implementations.

(450) The storage cover portions **412** and **422** are located on upper sides of the storage body portions **411** and **421**. In some implementations, the storage body portions **411** and **421** and the storage cover portions **412** and **422** may be integrally formed with each other. That is, the storage body portions **411** and **421** and the storage cover portions **412** and **422** may be coupled so as not to be arbitrarily separated from each other.

(451) The detachment/attachment protrusions **413** and **423** protrude between the storage body portions **411** and **421** and the storage cover portions **412** and **422**. The user may easily detach the storage containers **410** and **420** by gripping the detachment/attachment protrusions **413** and **423**.

(452) The discharge inclined portions **430** are formed on lower sides of the storage body portions **411** and **421**, respectively. The clothes treatment agent accommodated in the inner spaces of the storage body portions **411** and **421** may flow to the rear side along the discharge inclined portions **430**.

(453) The check valves **416** and **426** are provided on the rear sides of the storage body portions **411** and **421**, respectively. The inner spaces of the storage body portions **411** and **421** may communicate with the clothes treatment agent pump unit **220** by the check valves **416** and **426**.

(454) The storage body portions **411** and **421** are provided on the rear sides thereof with the sensor portions **417** and **427** and the sealing portions **418** and **428** configured to seal the sensor portions **417** and **427**. Information related to a remaining amount of clothes treatment agents accommodated in the storage body portions **411** and **421** may be transmitted to a control unit through the sensor portions **417** and **427**.

(455) The storage body portions **411** and **421** extend in the lengthwise direction, namely, in the back and forth direction in some implementations. Widths of the storage body portions **411** and **421** in the left and right direction in some implementations may be different in the lengthwise direction.

(456) That is, each of the storage body portions **411** and **421** may be divided along the lengthwise

direction into one side facing the grip portion **310**, another side facing the rear end part **330**, and still another side located between the one side and the another side.

(457) The one side of each of the storage body portions **411** and **421**, namely, the front side in some implementations, is formed to have a wider width than the still another side of the storage body portion **411**, **421** brought into contact with the inner wall **323** in the lengthwise direction.

(458) Also, the another side of the storage body portion **411**, **421**, namely, the rear side in some implementations, is formed to have a wider width than the still another side of the storage body portion **411**, **421**.

(459) That is, the storage body portion **411**, **421** is formed such that the width of the still another side is narrower than the widths of the one side and the another side.

(460) Therefore, even if the storage containers **410** and **420** are brought into contact with each other at the one side and the another side thereof, the storage containers **410** and **420** are spaced apart from each other at the still another sides thereof. The housing accommodation part **350** may be located in a space defined as the still another sides of the storage containers **410** and **420** are spaced apart from each other.

(461) That is, when the storage containers **410** and **420** are accommodated in the space defined to surround the inner wall **323** of the spaces of the drawer frame **320**, the housing accommodation part **350** is located between the still another sides of the storage containers **410** and **420**.

Accordingly, the storage containers **410** and **420** may be disposed to surround the housing accommodation part **350** at the outside of the housing accommodation part **350**.

(462) In some implementations, the still another side of each storage container **410** and **420** may be in contact with an outer side of the inner wall **323** extending in the lengthwise direction. Each of the storage cover portions **412** and **422** is located on one side of each of the storage body portions **411** and **421**, namely, on the upper side in some implementations. The storage cover portions **412** and **422** are configured to cover the storage body portions **411** and **421**, respectively. That is, the storage cover portions **412** and **422** function as covers of the storage body portions **411** and **421**.

(463) The storage cover portions **412** and **422** extend in the lengthwise direction, namely, in the back and forth direction in some implementations. The shape of the storage cover portions **412** and **422** may correspond to the shape of the storage body portions **411** and **421**.

(464) The storage cap portions **414** and **424** are provided on the front sides of the storage cover portions **412** and **422**, respectively. The storage cap portions **414** and **424** are configured to seal openings formed on the front sides of the storage cover parts **412** and **422**, respectively.

(465) The user may open the storage cap portion **414**, **424** and supply the clothes treatment agent through the opening. In some implementations, the storage cap portions **414** and **424** may be configured to be coupled to or separated from the storage cover portions **412** and **422** in a rotating manner.

(466) The through holes **415** and **425** are formed in a penetrating manner at the front sides of the storage cap portions **414** and **424**, respectively, on the storage cover portions **412** and **422**.

(467) The through holes **415** and **425** allow inside and outside of the storage body portions **411** and **421** to communicate with each other, so as to maintain the balance of pressure inside the storage body portions **411** and **421**.

(468) Specifically, when the clothes treatment agent accommodated in the storage body portions **411** and **421** is discharged through the clothes treatment agent pump unit **220**, negative pressure is formed inside the storage body portions **411** and **421**.

(469) Therefore, a discharge process is not smoothly carried out when it is desired to discharge the clothes treatment agent for the next clothes treating process. In addition, when the user wants to open the storage cap portions **414** and **424** in order to additionally supply the clothes treatment agent, it is difficult to detach the storage cap portions **414** and **424** due to internal pressure of the storage body portions **411** and **421**.

(470) Therefore, the through holes **415** and **425** communicate the inside and outside of the storage

body portions **411** and **421**, so as to balance the internal pressure of the storage body portions **411** and **421** and atmospheric pressure. Accordingly, the internal pressure of the storage body portions **411** and **421** may be maintained to be the same as the atmospheric pressure, despite the outflow of the clothes treatment agent.

(471) The through holes **415** and **425** may be formed in any shape capable of communicating the inside and outside of the storage body portions **411** and **421**. In some implementations, the through holes **415** and **425** may be formed to have a circular cross section.

(472) The through holes **415** and **425** may be located adjacent to each other. That is, the first through hole **415** may be located on one side of the first storage cover portion **412** adjacent to the second storage container **420**. Likewise, the second through hole **425** may be located on one side of the second storage cover portion **422** adjacent to the first storage container **410**.

(473) The storage unit **400** is configured such that the front side thereof where the through holes **415** and **425** are formed rises upward when the storage unit **400** is attached to or detached from the drawer **300**. Accordingly, the clothes treatment agent is not discharged through the through holes **415** and **425**. This will be described in detail later.

(474) The check valves **416** and **426** are configured to allow or block the communication between the inner spaces of the storage body portions **411** and **421** and the clothes treatment agent pump unit **220**. By virtue of the communication, the clothes treatment agent accommodated in the inner spaces of the storage body portions **411** and **421** may be discharged to the outside.

(475) In some implementations, the check valves **416** and **426** are located on rear lower sides of the storage body portions **411** and **421**, respectively. The check valves **416** and **426** protrude outward from the rear surfaces of the storage body portions **411** and **421**, respectively, by a predetermined distance. This may result in that the storage containers **410** and **420** may be inserted into the space of the drawer **300** only from their rear sides.

(476) When the storage containers **410** and **420** inserted in the drawer **300** are coupled to the clothes treatment agent pump unit **220**, the primary pump valves **224** are insertedly coupled to the check valves **416** and **426**, respectively. At this time, the primary pump valves **224** are in contact with the check valves **416** and **426** to push forward the check valves **416** and **426** by a predetermined distance.

(477) Accordingly, the intake ports **416d** and **426d** formed on the outer circumferences of the check valves **416** and **426** and the inlet ports **224d** formed on the outer circumferences of the respective primary pump valves **224** communicate with the inner spaces of the storage body portions **411** and **421**.

(478) On the contrast, when the storage containers **410** and **420** that have been inserted in the drawer **300** are separated from the clothes treatment agent pump unit **220**, each check valve **416** and **426** is moved to the rear side by the predetermined distance due to an elastic restored force. Accordingly, the inner spaces of the storage body portions **411** and **421** and the outside which have communicated with each other are blocked from each other.

(479) Accordingly, even if the storage containers **410** and **420** are removed, the clothes treatment agent does not leak through the check valves **416** and **426**.

(480) The check valves **416** and **426** may be provided in any form that limits an arbitrary fluid to flow in only one direction and allows or restricts the flow of the fluid. In some implementations, the check valves **416** and **426** may be configured as lift check valves.

(481) In some implementations, the check valves **416** and **426** each include a check valve cylinder portion **416a**, **426a**, a check valve cap portion **416b**, **426b**, a check valve elastic portion **416c**, **426c**, and an intake port **416d**, **426d** (see FIG. 20).

(482) The check valve cylinder portion **416a**, **426a** forms the body of the check valve **416**, **426**. The check valve cylinder portion **416a**, **426a** is formed to extend in the lengthwise direction. In some implementations, the check valve cylinder portion **426a**, **426a** is formed in a cylindrical shape which has a circular cross section and extends in the lengthwise direction.

(483) A space portion is defined inside the check valve cylinder portion **416a**, **426a**. The space portion extends from one end to another end of the check valve cylinder portion **416a**, **426a** in the lengthwise direction.

(484) That is, the space portion is formed through the check valve cylinder portion **416a**, **426a** in the lengthwise direction. The space portion may allow the inner space of the storage body portion **411**, **421** to communicate with the inner space of the primary valve cylinder portion **224a** through the intake port **416d**, **426d**.

(485) The space portion is formed to have a diameter equal to or larger than a diameter of the primary valve cylinder portion **224a**. The primary valve cylinder portion **224a** is inserted into one side of the space portion in the lengthwise direction, namely, into the rear side in some implementations.

(486) The primary valve cylinder portion **224a** may be moved in the lengthwise direction, namely, in the back and forth direction in some implementations, in the state inserted in the space portion.

(487) A through hole is formed through the front side of the check valve cylinder portion **416a**, **426a**. One side of the check valve cap portion **416b**, **426b**, namely, the front end portion thereof in some implementations is inserted into the through hole.

(488) The intake port **416d**, **426d** is formed on the outer circumference of the check valve cylinder portion **416a**, **426a**. The space portion, the inner space of the storage body portion **411**, **421**, and the inner space of the primary valve cylinder portion **224a** communicate with one another through the intake port **416d**, **426d**.

(489) The check valve cap portion **416b**, **426b** extends in the lengthwise direction. The check valve cap portion **416b**, **426b** may include a first part having the smallest diameter, a second part having a larger diameter than the first part and extending from the first part, and a third part covering a rear end portion of the second part.

(490) The first part is coupled through an opening formed through the front side of the check valve cylinder portion **416a**, **426a**. Further, the third part is configured to close an opening formed through the rear side of the check valve cylinder portion **416a**, **426a**.

(491) The check valve cap portion **416b**, **426b** is moved in the lengthwise direction, namely, in the back and forth direction in some implementations, so as to allow or block the communication of the space portion, the inner space of the storage body portion **411**, **421**, and the primary valve cylinder portion **224a**.

(492) That is, when the check valve cap portion **416b**, **426b** is moved forward by a predetermined distance, the intake port **416d**, **426d** communicates with the inlet port **224d**.

(493) The forward movement of the check valve cap portion **416b**, **426b** may be achieved by being pushed by the primary pump valve **224**.

(494) In addition, when the check valve cap portion **416b**, **426b** is moved rearward by a predetermined distance, the intake port **416d**, **426d** and the inlet port **224d** is blocked from each other. Furthermore, when the check valve cap portion **416b**, **426b** is moved to the rear side by a predetermined distance, the rear end portion of the check valve cap portion **416b**, **426b** hermetically seals the rear opening of the check valve cylinder portion **416a**, **426a**.

(495) The rearward movement of the check valve cap portion **416b**, **426b** is achieved by an elastic restoring force stored in the check valve elastic portion **416c**, **426c**.

(496) The check valve elastic portion **416c**, **426c** is compressed due to the forward movement of the check valve cap portion **416b**, **426b** so as to store the elastic restoring force. The check valve cap portion **416b**, **426b** is moved rearward by a predetermined distance by the stored elastic restoring force. Accordingly, the rear opening of the check valve cylinder portion **416a**, **426a** may be closed.

(497) When the check valve cap portion **416b**, **426b** is moved forward by a predetermined distance by the primary pump valve **224**, the check valve elastic portion **416c**, **426c** is compressed. This is a state in which the storage container **410**, **420** accommodated in the drawer **300** is coupled to the

clothes treatment agent pump unit **220**.

(498) When the coupled state between the storage container **410, 420** and the clothes treatment agent pump unit **220** is released, that is, when the drawer **300** is drawn out of the dispenser assembly **200**, the check valve elastic portion **416c, 426c** is restored to its original shape. During this process, the check valve cap portion **416b, 426b** is moved rearward by the stored elastic restoring force, so as to close the rear opening of the check valve cylinder portion **416a, 426a**.

(499) The check valve elastic portion **416c, 426c** may be provided in any form capable of storing the elastic restoring force as its shape is deformed, and transferring the stored elastic restoring force to another member as it returns the original shape. In some implementations, the check valve elastic portion **416c, 426c** may be configured as a coil spring.

(500) The check valve elastic portion **416c, 426c** is located between the front end of the check valve cylinder portion **416a, 426a** and the check valve cap portion **416b, 426b**. The check valve elastic portion **416c, 426c** may be coupled through the first and second parts of the check valve cap portion **416b, 426b**.

(501) The intake port **416d, 426d** allows the inner space of the check valve cylinder portion **416a, 426a** to communicate with the inner space of the storage body portion **411, 421**.

(502) The clothes treatment agent accommodated in the inner space of the storage body portion **411, 421** may be introduced into the inner space of the check valve cylinder portion **416a, 426a** through the intake port **416d, 426d**. The introduced clothes treatment agent may flow into the inner space of the primary valve cylinder portion **224a**.

(503) The intake port **416d, 426d** may be formed in any shape through which at least two spaces communicate with each other. In some implementations, the intake port **416d, 426d** may be formed in the form of a through hole.

(504) The intake port **416d, 426d** is formed on the circumference of the check valve cylinder portion **416a, 426a**. In some examples, the intake port **416d, 426d** may be defined at one side of the check valve cylinder portion **416a, 426a** facing the discharge inclined portion **430**, namely, on the lower side of the check valve cylinder portion **416a, 426a** in some implementations.

(505) As the intake port **416d, 426d** is formed on the lower side of the check valve cylinder portion **416a, 426a**, an amount of clothes treatment agents remaining inside the storage body portion **411, 421** may be minimized. This will be described in detail later.

(506) In addition, the intake port **416d, 426d** is biased to one side of the check valve cylinder portion **416a, 426a** in the lengthwise direction, namely, to the rear side in some implementations. The check valve cap portion **416b, 426b** may be moved forward until the intake port **416d, 426d** is located at the rear side of the check valve cap portion **416b, 426b**.

(507) By the movement of the check valve cap portion **416b, 426b**, the intake port **416d, 426d** is located in a space defined at the rear side of two spaces partitioned by the check valve cap portion **416b, 426b**.

(508) The primary valve cylinder portion **224a** is inserted into the space defined at the rear side. In addition, the space communicates with the inlet port **224d**.

(509) Accordingly, the inner space of the storage body portion **411, 421** and the inner space of the check valve cylinder portion **416a, 426a** may communicate with the inner space of the primary valve cylinder portion **224a**. The clothes treatment agent accommodated in the storage body portion **411, 421** may flow into the inner space of the primary valve cylinder portion **224a** by the communication.

(510) The sensor portion **417, 427** is configured to sense an amount of clothes treatment agents accommodated in the inner space of the storage body portion **411, 421**.

(511) The sensor portion **417, 427** is located on one side of the storage container **410, 420**, namely, on the rear side of the storage container **410, 420** in some implementations. Specifically, the sensor portion **417, 427** is located on the rear upper side of the storage body portion **411, 421**.

(512) In other words, the sensor portion **417, 427** is located above the check valve **416, 426** at the

rear of the storage body portion **411, 421**. This is to prevent the clothes treatment agent from flowing into the sensor portion **417, 427** when the storage unit **400** is detached from the drawer **300**.

(513) Specifically, the check valve **416, 426** communicates with the clothes treatment agent pump unit **220** when the storage unit **400** is inserted into the drawer **300**. With the configuration, the clothes treatment agent accommodated in the storage unit **400** may be introduced into the clothes treatment agent pump unit **220**.

(514) When the user detaches the storage unit **400**, the communication between the check valve **416, 426** and the clothes treatment agent pump unit **220** is blocked by the aforementioned configuration. Therefore, in a general situation, the clothes treatment agent accommodated in the storage unit **400** is not randomly leaked.

(515) However, in some cases, the clothes treatment agent may remain in a portion where the check valve **416, 426** communicates with the clothes treatment agent pump unit **220**. At this time, if the sensor portion **417, 427** is located below the check valve **416, 426**, the remaining clothes treatment agent may be leaked and brought into contact with the sensor portion **417, 427**. In this case, the sensor portion **417, 427** may be contaminated or damaged.

(516) Therefore, the sensor portion **417, 427** is located above the check valve **416, 426**, thereby fundamentally preventing an occurrence of such a situation.

(517) The sensor portion **417, 427** protrudes outward, namely, rearward in some implementations, from the storage body portion **411, 421** by a predetermined distance.

(518) In some implementations, the sensor portion **417, 427** may include a plurality of terminals on one side wall of the storage body portion **411, 421**, namely, on a rear wall in some implementations. The plurality of terminals may be located at different heights to sense a surface of the clothes treatment agent accommodated inside the storage body portion **411, 421**.

(519) In some implementations, the sensor portion **417, 427** includes three terminal spaces. This is because three terminals are provided. The number of terminal spaces provided in the sensor portion **417, 427** may change depending on the number of terminals.

(520) The sensor portion **417, 427** is electrically connected to an external control unit. Information related to a remaining amount of clothes treatment agents detected by the sensor portion **417, 427** may be transmitted to the control unit. In some examples, a plurality of connectors may be electrically connected to the sensor portion **417, 427**.

(521) The sensor portion **417, 427** may be sealed by the sealing portion **418, 428**.

(522) The sealing portion **418, 428** is provided on an outer side of the sensor portion **417, 427**. The sealing portion **418, 428** is configured to seal the sensor portion **417, 427**. By means of the sealing portion **418, 428**, the fluid or clothes treatment agent does not flow into the sensor portion **417, 427**. Accordingly, the electrical connection state between the sensor portion **417, 427** and the external control unit may be smoothly maintained.

(523) An opening may be formed through one side of the sealing portion **418, 428** facing the sensor portion **417, 427**. The sensor portion **417, 427** may be electrically connected to the external control unit through the opening.

(524) The sealing portion **418, 428** may be formed of an insulating material. In some implementations, the sealing portion **418, 428** may be formed of rubber, synthetic resin, or a silicone material.

(525) When the storage container **410, 420** is accommodated in the drawer **300**, the partition member **331** is disposed between the check valve **416, 426** and the sensor portion **417, 427**. Accordingly, the check valve **416, 426** is caught by the partition member **331**, thereby limiting a direction of inserting and separating the storage container **410, 420**.

(526) The discharge inclined portion **430** defines one side of the storage body portion **411, 421**, namely, a lower surface in some implementations.

(527) The discharge inclined portion **430** may allow the clothes treatment agent accommodated in

the inner space of the storage container **410, 420** to flow toward the check valve **416, 426** located at the rear side.

(528) In addition, collection space portions **436** and **437** are formed in one side of the discharge inclined portion **430** in the lengthwise direction, namely, in the rear side in some implementations. The collection space portions **436** and **437** are located in the rearmost and lower sides of the discharge inclined portion **430**.

(529) The clothes treatment agent collected in the collection space portions **436** and **437** may flow into the inner space of the check valve **416, 426** through the intake port **416d, 426d**.

(530) Accordingly, the amount of clothes treatment agents remaining inside the storage container **410, 420** may be minimized.

(531) The discharge inclined portion **430** extends in the lengthwise direction, namely, in the back and forth direction in some implementations. That is, the discharge inclined portion **430** extends from one side of the storage container **410, 420** in the lengthwise direction, namely, from the front side in some implementations, to another side in the lengthwise direction, namely, to the rear side in some implementations.

(532) The discharge inclined portion **430** extends in the lengthwise direction at a predetermined inclination. In other words, a vertical distance between the discharge inclined portion **430** and the storage cover portion **412, 422** increases from the front side to the rear side.

(533) The clothes treatment agent may flow in the discharge inclined portion **430**. Hereinafter, the discharge inclined portion **430** will be described in detail with reference to FIG. 19.

(534) The discharge inclined portion **430** includes a first bottom surface **431**, a second bottom surface **432**, a third bottom surface **433**, a first joint surface **434**, a second joint surface **435**, and a first collection space portion **436**, and a second collection space portion **437**.

(535) The first bottom surface **431** defines the front side of the discharge inclined portion **430**. The first bottom surface **431** may be defined as a portion having the shortest vertical distance from the storage cover portion **412, 422**.

(536) The first bottom surface **431** extends from the front to the rear with a predetermined inclination. That is, a distance between the front side of the first bottom surface **431** and the storage cover portion **412, 422** is shorter than a distance between the rear side of the first bottom surface **431** and the storage cover portion **412, 422**. Accordingly, the clothes treatment agent accommodated in the storage container **410, 420** may flow to the rear side along the first bottom surface **431**.

(537) The second bottom surface **432** is located at the rear side of the first bottom surface **431**. In addition, the second bottom surface **432** defines the rearmost side of the discharge inclined portion **430**. That is, the second bottom surface **432** is located on an opposite side of the grip portion **310**.

(538) The second bottom surface **432** extends in the lengthwise direction with a predetermined angle with the first bottom surface **431**. In some implementations, the second bottom surface **432** may extend horizontally.

(539) The second bottom surface **432** is located lower than the first bottom surface **431**. That is, the shortest distance **D2** between the second bottom surface **432** and the storage cover portion **412, 422** is longer than the longest distance **D1** between the first bottom surface **431** and the storage cover portion **412, 422**.

(540) The second bottom surface **432** may be rounded in the lengthwise direction. That is, the second bottom surface **432** may have a shape of a semicircular column that is convex downward and extends in the lengthwise direction. Accordingly, the clothes treatment agent introduced into the second bottom surface **432** may be collected in the downwardly-convex portion.

(541) The check valve **416, 426** is located adjacent to the second bottom surface **432**. Specifically, the check valve **416, 426** is located with being spaced apart from the second bottom surface **432** by a predetermined distance. The check valves **416** and **426** is spaced apart from the second bottom surface **432** by the predetermined distance in a direction facing the storage cover portion **412, 422**,

namely, in an upward direction in some implementations.

(542) The third bottom surface **433** may be located between the first bottom surface **431** and the second bottom surface **432**.

(543) That is, one side of the third bottom surface **433**, namely, the front side thereof in the lengthwise direction, is connected to one side of the first bottom surface **431** in the lengthwise direction, namely, to the rear side in some implementations.

(544) In addition, another side of the third bottom surface **433** in the lengthwise direction, namely, the rear side thereof in some implementations is connected to one side of the second bottom surface **432** in the lengthwise direction, namely, to the front side in some implementations.

(545) In some implementations, the third bottom surface **433** may not be formed in the discharge inclined portion **430**. That is, the first bottom surface **431** and the second bottom surface **432** may be directly connected to each other.

(546) That is, one side of the second bottom surface **432** in the lengthwise direction, namely, the front side thereof may be connected to one side of the first bottom surface **431** in the lengthwise direction, namely, to the rear side in some implementations.

(547) The third bottom surface **433** continuously connects the first bottom surface **431** and the second bottom surface **432**. The third bottom surface **433** may be located between the first bottom surface **431** and the second bottom surface **432**.

(548) The third bottom surface **433** may extend away from the first bottom surface **431**, namely, to the rear side in some implementations at a predetermined inclination with respect to the first bottom surface **431**. In some implementations, the third bottom surface **433** may extend horizontally.

(549) The third bottom surface **433** is located lower than the first bottom surface **431**. That is, the longest distance **D1** between the first bottom surface **431** and the storage cover portion **412**, **422** is shorter than the shortest distance **D3** between the third bottom surface **433** and the storage cover portion **412**, **422**.

(550) The third bottom surface **433** is located higher than the second bottom surface **432**. That is, the shortest distance **D2** between the second bottom surface **432** and the storage cover portion **412**, **422** is longer than a longest distance **D3'** between the third bottom surface **433** and the storage cover portion **412**, **422**.

(551) The third bottom surface **433** may be rounded in the lengthwise direction. That is, the third bottom surface **433** may have a shape of a semicircular column that is convex downward and extends in the lengthwise direction. Accordingly, the clothes treatment agent introduced into the third bottom surface **433** may be collected in the downwardly-convex portion.

(552) The first bottom surface **431** and the third bottom surface **433** may be continuously connected to each other by the first joint surface **434**.

(553) That is, the first joint surface **434** extends from one side of the first bottom surface **431**, namely, from a rear end in some implementations, to one side of the third bottom surface **433**, namely, to a front end in some implementations.

(554) The first joint surface **434** may extend at a predetermined angle with respect to the first bottom surface **431**. In some implementations, the first joint surface **434** may extend so that a distance up to the storage cover portion **412**, **422** is increased as it is farther away from the first bottom surface **431**.

(555) In some examples, the second joint surface **435** may extend at a predetermined angle with respect to the third bottom surface **433**. In some implementations, the first joint surface **434** may extend so that a distance up to the storage cover portion **412**, **422** is decreased as it is farther away from the third bottom surface **433**.

(556) In some implementations, the first joint surface **434** may be formed to be downwardly or forwardly convex to have a cross section in a curved shape.

(557) The first joint surface **434** may be formed to be inclined from the front side to the rear side,

so that the clothes treatment agent does not stay. That is, the front end of the first joint surface **434** connected to the first bottom surface **431** may be higher in height than the rear end of the first joint surface **434** connected to the third bottom surface **433**.

(558) Accordingly, the clothes treatment agent flowing along the first bottom surface **431** may flow toward the third bottom surface **433** via the first joint surface **434**.

(559) A space partially surrounded by the third bottom surface **433** may be defined as the second collection space portion **437**. In some implementations, the definition may extend so that the second collection space portion **437** may also be defined as a space partially surrounded by the third bottom surface **433** and the first joint surface **434**.

(560) The second bottom surface **432** and the third bottom surface **433** may be continuously connected to each other by the second joint surface **435**.

(561) That is, the second joint surface **435** extends from one side of the third bottom surface **433**, namely, from a rear end in some implementations, to one side of the second bottom surface **432**, namely, to a front end in some implementations.

(562) The second joint surface **435** may extend at a predetermined angle with respect to the third bottom surface **433**. In some implementations, the second joint surface **435** may extend so that a distance up to the storage cover portion **412**, **422** is increased as it is farther away from the third bottom surface **433**.

(563) Also, the second joint surface **435** may extend at a predetermined angle with respect to the second bottom surface **432**. In some implementations, the second joint surface **435** may extend so that a distance up to the storage cover portion **412**, **422** is increased as it is farther away from the second bottom surface **432**.

(564) In some implementations, the second joint surface **435** may be formed to be downwardly or forwardly convex to have a cross section in a curved shape.

(565) The second joint surface **435** may be formed to be inclined from the front side to the rear side, so that the clothes treatment agent does not stay. That is, the front end of the second joint surface **435** connected to the third bottom surface **433** may be higher in height than the rear end of the second joint surface **435** connected to the second bottom surface **432**.

(566) Accordingly, the clothes treatment agent flowing along the first bottom surface **431** and the third bottom surface **433** may flow toward the third bottom surface **433** via the second joint surface **435**.

(567) A space partially surrounded by the second bottom surface **432** may be defined as the first collection space portion **436**. In some implementations, the definition may extend so that the first collection space portion **436** may also be defined as a space partially surrounded by the second bottom surface **432** and the second joint surface **435**.

(568) The first collection space portion **436** is a space where the clothes treatment agent flowing along the first bottom surface **431** and the third bottom surface **433** is finally collected.

(569) The first collection space portion **436** may be defined as a space partially surrounded by the second bottom surface **432**. That is, the first collection space portion **436** is a space formed on one side of the second bottom surface **432** facing the storage cover portion **412**, **422**, namely, on an upper side thereof in some implementations.

(570) The first collection space portion **436** may also be defined as a space partially surrounded by the second joint surface **435**. That is, the first collection space portion **436** is a space formed on one side of the second joint surface **435** facing the storage cover portion **412**, **422**, namely, on the upper side in some implementations.

(571) The first collection space portion **436** communicates with a space partially surrounded by the first bottom surface **431**, the third bottom surface **433**, and the first joint surface **434**.

(572) Accordingly, the clothes treatment agent accommodated in the storage container **410**, **420** flows toward the first collection space portion **436** along the first bottom surface **431**, the first joint surface **434**, and the third bottom surface **433**.

(573) The check valve **416, 426** is located in the first collection space portion **436**. Specifically, one end portion of the check valve **416, 426** in the lengthwise direction is located in the first collection space portion **436**.

(574) The intake port **416d, 426d** of the check valve **416, 426** is located in the first collection space portion **436**. By the arrangement, the first collection space portion **436** and the inner space of the check valve cylinder portion **416a, 426a** may communicate with each other.

(575) As described above, the inner space of the check valve cylinder portion **416a, 426a** communicates with the inner space of the primary valve cylinder portion **224a** through the inlet port **224d**.

(576) With the configuration, the clothes treatment agent collected in the first collection space portion **436** may flow into the inner space of the primary valve cylinder portion **224a**. Accordingly, the amount of clothes treatment agents remaining inside the storage container **410, 420** may be minimized.

(577) The process in which the clothes treatment agent flows along the discharge inclined portion **430** inside the storage container **410, 420** will be described later.

(578) The second collection space portion **437** is a space in which the clothes treatment agent flowing along the second bottom surface **432** is primarily collected.

(579) The second collection space portion **437** may be defined as a space partially surrounded by the third bottom surface **433**. That is, the second collection space portion **437** is a space formed on one side of the third bottom surface **433** facing the storage cover portion **412, 422**, namely, on an upper side thereof in some implementations.

(580) The second collection space portion **437** may also be defined as a space partially surrounded by the first joint surface **434**. That is, the second collection space portion **437** is a space formed on one side of the first joint surface **434** facing the storage cover portion **412, 422**, namely, on the upper side in some implementations.

(581) The second collection space portion **437** may be defined as a space partially surrounded by the first bottom surface **431**. In addition, the second collection space portion **437** communicates with the first collection space portion **436**.

(582) Accordingly, the clothes treatment agent accommodated in the storage container **410, 420** may flow to the second collection space portion **437** along the first bottom surface **431**. In addition, the clothes treatment agent introduced into the second collection space portion **437** may flow toward the first collection space portion **436**.

(583) As described above, the third bottom surface **433** may not be provided in the discharge inclined portion **430**. That is, the first bottom surface **431** and the second bottom surface **432** may be directly connected to each other. The first bottom surface **431** and the second bottom surface **432** may be connected to each other by the first joint surface **434** in an inclined manner.

(584) The clothes treatment agent accommodated in the storage container **410, 420** may flow along the first bottom surface **431** and the first joint surface **434** so as to be introduced into the first collection space portion **436**.

(585) Hereinafter, the clothes treatment agent housing **500** provided in the clothes treating machine **10** will be described in detail, with reference to FIGS. **21** to **22**.

(586) A clothes treatment agent which is manually supplied by the user to perform a clothes treating process is supplied into the clothes treatment agent housing **500**. That is, the clothes treatment agent is supplied into the clothes treatment agent housing **500** each time a clothes treating process is performed.

(587) A fluid for dissolving the clothes treatment agent is also supplied into the clothes treatment agent housing **500**. The fluid may be supplied through the second fluid discharge portion **234** of the fluid supply unit **230**.

(588) The clothes treatment agent housing **500** may be detachably accommodated in the housing accommodation part **350** of the drawer **300**.

(589) An opening **520** is formed through an upper side of the clothes treatment agent housing **500**. The user may manually supply the clothes treatment agent into the clothes treatment agent housing **500** through the opening **520**. In addition, the fluid supplied from the fluid supply unit **230** may also be supplied through the opening **520**.

(590) A predetermined space is defined inside the clothes treatment agent housing **500**. The supplied clothes treatment agent or fluid may stay in the predetermined space. When an amount of clothes treatment agents or fluids staying in the predetermined space exceeds a predetermined reference value, the clothes treatment agent or fluid may be discharged to the outside through a discharge passage **580**.

(591) The clothes treatment agent housing **500** is formed such that a length in the back and forth direction (i.e., the lengthwise direction) is longer than a width in the left and right direction in some implementations. The shape of the clothes treatment agent housing **500** may change depending on the shape of the housing accommodation part **350**.

(592) The clothes treatment agent housing **500** includes an outer circumferential surface **510**, an opening **520**, a spacing protrusion **530**, a siphon portion **540**, a siphon cover portion **550**, a siphon coupling portion **560**, and a collecting portion **570**, and a discharge passage **580**. The outer circumferential surface **510** defines an outer surface of the clothes treatment agent housing **500**.

(593) In some implementations, the outer circumferential surface **510** includes a first part **510a** extending by a predetermined distance to be inclined in a direction from the front side to the rear side of the clothes treatment agent housing **500**, a second part **510b** extending rearward from the first part **510a** at a predetermined angle with respect to the first part **510a**, and a third part **510c** extending upward from the second part **510b** at a predetermined angle with respect to the second part **510b**.

(594) The outer circumferential surface **510** may be formed in a downwardly-concave shape by the first to third parts **510a**, **510b**, and **510c**.

(595) That is, the first part **510a** and the second part **510b** are formed to be inclined toward the discharge passage **580** from the front side of the space in the clothes treatment agent housing **500**. In addition, the third part **510c** is formed to be inclined toward the discharge passage **580** from the rear side of the space in the clothes treatment agent housing **500**.

(596) Accordingly, the clothes treatment agent or fluid supplied in the inner space of the clothes treatment agent housing **500** may flow to the discharge passage **580** along inner surfaces of the first to third parts **510a**, **510b**, and **510c**.

(597) A support protrusion surface **511** protrudes from one side of the first part **510a** of the outer circumferential surface **510**, namely, from an upper side in some implementations, by a predetermined distance. The support protrusion surface **511** may protrude at a predetermined angle with respect to the outer circumferential surface **510**.

(598) In some implementations, the support protrusion surface **511** may horizontally protrude or may protrude to be inclined toward a front lower side or a front upper side.

(599) When the clothes treatment agent housing **500** is accommodated in the housing accommodation part **350**, the support protrusion surface **511** is seated on the support rod **352**. Therefore, the front side of the clothes treatment agent housing **500** may be stably supported in a state of being spaced apart from the lower surface **351** by a predetermined distance.

(600) Furthermore, a forward movement of the clothes treatment agent housing **500** may be limited as the first part **510a** of the outer circumferential surface **510** is brought into contact with the support rod **352**. Therefore, the clothes treatment agent housing **500** may be stably maintained at a predetermined position.

(601) An alignment pin **512** protrudes from one side of the third part **510c** of the outer circumferential surface **510**, namely, from a lower side in some implementations, by a predetermined distance.

(602) When the clothes treatment agent housing **500** is accommodated in the housing

accommodation part **350**, the alignment pin **512** is inserted into an alignment pin insertion groove **354a** of the housing accommodation part **350**.

(603) The alignment pin **512** is formed to be longer in the back and forth direction than in the left and right direction. That is, the alignment pin **512** is formed to have a horizontal cross section in a rectangular shape in which a length of a pair of sides facing each other is longer than a length of another pair of sides.

(604) Accordingly, when the alignment pin **512** is inserted into the alignment pin insertion groove **354a**, the movement of the clothes treatment agent housing **500** in the left and right direction is limited. Therefore, the clothes treatment agent housing **500** may be stably maintained at a predetermined position.

(605) The alignment pin **512** may be provided in plurality. In some implementations, the alignment pin **512** is provided by two, which are spaced apart from each other by a predetermined distance. The shape, number, and position of the alignment pin **512** may change depending on the shape, number, and position of the alignment pin insertion groove **354a**.

(606) The opening **520** is a portion through which the clothes treatment agent supplied by the user or the fluid supplied from the fluid supply unit **230** is introduced. The opening **520** is formed through the upper side of the clothes treatment agent housing **500**.

(607) The opening **520** may be surrounded by an inner surface of the outer circumferential surface **510**. That is, the opening **520** may be defined as a space surrounded by the inner surfaces of the first to third parts **510a**, **510b**, and **510c** of the outer circumferential surface **510**.

(608) The opening **520** may be partially covered by the siphon cover portion **550**. In some implementations, the siphon cover portion **550** is configured to cover a part of a rear side of the opening **520**.

(609) The opening **520** communicates with the outside. The user may directly supply the clothes treatment agent through the opening **520**.

(610) The opening **520** communicates with the fluid supply unit **230**. The fluid discharged from the fluid supply unit **230** may be introduced into the inner space of the fluid supply unit **230** through the opening **520**.

(611) The opening **520** communicates with the inner space of the clothes treatment agent housing **500**. The clothes treatment agent or fluid supplied through the opening **520** may flow to the collecting portion **554** via the inner space of the clothes treatment agent housing **500**. The clothes treatment agent or fluid collected in the collecting portion **554** may be discharged through the discharge passage **580** via the siphon portion **540**.

(612) The spacing protrusion **530** is provided so that one side of the inner wall **323** surrounding the housing accommodation part **350** is spaced a predetermined distance apart from the clothes treatment agent housing **500**. Specifically, the spacing protrusion **530** allows the inner wall **323** of the rear side in some implementations to be spaced the predetermined distance apart from the rear side of the clothes treatment agent housing **500**.

(613) The spacing protrusion **530** protrudes from the third part **510c** of the outer circumferential surface **510** by a predetermined distance. The spacing protrusion **530** extends from an upper side of the third part **510c** by a predetermined distance (see FIG. 21).

(614) One side of the spacing protrusion **530**, namely, the rear side thereof in some implementations, is brought into contact with the first surface **355a** of the protruding portion **355**.

(615) Accordingly, the third part **510c** of the outer circumferential surface **510** of the clothes treatment agent housing **500** and the rear side of the inner wall **323** are spaced apart from each other by a distance corresponding to the sum of a protruded distance of the protruding portion **355** and a protruded distance of the spacing protrusion **530**.

(616) A space defined by the spacing between the clothes treatment agent housing **500** and the rear side of the inner wall **323** may be defined as the space portion **356**. The fluid or clothes treatment agent overflowed from the inner space of the clothes treatment agent housing **500** may flow into

the discharge space portion **358** through the space portion **356**.

(617) Accordingly, the overflowed fluid or clothes treatment agent does not flow to the storage unit **400**.

(618) The spacing protrusion **530** may be provided in plurality. In some implementations, the spacing protrusion **530** is provided by two, which are spaced apart from each other by a predetermined distance. The number and spaced distance of the spacing protrusions **530** may change depending on the number and spaced distance of the protruding portions **355**.

(619) The spacing protrusion **530** may be formed in a plate shape having a small thickness relative to a width or length. Accordingly, a space occupied by the spacing protrusion **530** in the space portion **356** in the widthwise direction, namely, in the left and right direction in some implementations, may be minimized.

(620) The spacing protrusion **530** includes a first spacing surface **531**, a second spacing surface **532**, and a third spacing surface **533**.

(621) The first spacing surface **531** defines an upper surface of the spacing protrusion **530**. The first spacing surface **531** extends rearward from the upper side of the third part **510c** of the outer circumferential surface **510** at a predetermined angle with respect to the third part **510c**. In some implementations, the first spacing surface **531** may extend perpendicular to the third part **510c**.

(622) The second spacing surface **532** defines a rear surface of the spacing protrusion **530**. The second spacing surface **532** extends downward from a rear end portion of the first spacing surface **531** at a predetermined angle with respect to the first spacing surface **531**. In some implementations, the second spacing surface **532** may extend at an acute or right angle with respect to the first spacing surface **531**.

(623) The second spacing surface **532** comes in contact with at least part of the first surface **355a** of the protruding portion **355**.

(624) The third spacing surface **533** defines a lower surface of the spacing protrusion **530**. The third spacing surface **533** extends forward from a lower end portion of the second spacing surface **532** at a predetermined angle with respect to the second spacing surface **532**. The third spacing surface **533** may extend up to the third part **510c**. In some implementations, the third spacing surface **533** may extend at a right angle or an obtuse angle with respect to the second spacing surface **532**.

(625) The siphon portion **540** discharges the clothes treatment agent or fluid supplied to the clothes treatment agent housing **500** into the discharge passage **580** using a siphon effect (see FIG. 21). The siphon portion **540** may be provided with a hollow portion in which the clothes treatment agent or fluid flows. The hollow portion may communicate with the collecting portion **570** and the discharge passage **580**.

(626) The process in which the fluid flows from one space to another by the siphon effect is a well-known technique, so a description thereof will be omitted.

(627) The siphon portion **540** is located in the inner space of the clothes treatment agent housing **500**. In some implementations, the siphon portion **540** is located between the second part **510b** and the third part **510c**. In addition, a lower end portion of the siphon portion **540** is located on the discharge passage **580**.

(628) With the configuration, the clothes treatment agent or the fluid collected by the collecting portion **554** along the first to third parts **510a**, **510b**, and **510c** may be discharged to the outside of the clothes treatment agent housing **500** through the discharge passage **580** by the siphon portion **540**.

(629) The siphon portion **540** extends in the lengthwise direction, namely, in the up and down direction in some implementations. The siphon cover portion **550** is located on an upper side of the siphon portion **540**. In addition, the siphon portion **540** is inserted into the siphon coupling portion **560**.

(630) The siphon cover portion **550** is configured to shield the upper side of the siphon portion **540**. The siphon cover portion **550** may be configured to seal an upper opening of the hollow portion

formed in the siphon portion **540**. Accordingly, the fluid or clothes treatment agent does not flow into the hollow portion inside the siphon portion **540** through the upper opening.

(631) The siphon cover portion **550** includes a first cover surface **551** and a second cover surface **552**. The first cover surface **551** is configured to shield the hollow portion. The second cover surface **552** extends from a front end of the first cover surface **551** at a predetermined angle with respect to the first cover surface **551**. In some implementations, the predetermined angle may be an obtuse angle.

(632) The second cover surface **552** may be provided with an arbitrary symbol thereon to indicate the maximum amount of clothes treatment agents to be introduced.

(633) The siphon portion **540** is inserted into the siphon coupling portion **560**. The siphon coupling portion **560** extends in the lengthwise direction, namely, in the up and down direction in some implementations. The siphon coupling portion **560** is provided with a hollow portion formed therethrough. The siphon portion **540** is inserted into the siphon coupling portion **560**.

(634) The siphon coupling portion **560** and the siphon cover portion **550** may be integrally formed with each other. When the siphon portion **540** is inserted into the siphon coupling portion **560**, the upper side of the siphon portion **540** may be shielded by the siphon cover portion **550**. Accordingly, the siphon portion **540** is not exposed to the outside.

(635) The collecting portion **570** is a space in which the clothes treatment agent or fluid supplied to the inner space of the clothes treatment agent housing **500** is collected. The collecting portion **570** is located between the second part **510b** and the third part **510c**. The collecting portion **570** may be formed to be lower than the second part **510b** and the third part **510c** in height.

(636) As described above, the first part **510a** and the second part **510b** of the outer circumferential surface **510** are formed to be inclined downward from the front side of the siphon portion **540**. In addition, the third part **510c** of the outer circumferential surface **510** is formed to be inclined downward from the rear side of the siphon portion **540**.

(637) Accordingly, the clothes treatment agent or fluid supplied to the inner space of the clothes treatment agent housing **500** may flow toward the collecting portion **570**.

(638) The collecting portion **570** communicates with the siphon portion **540**. The clothes treatment agent or fluid collected in the collecting portion **570** may flow to the discharge passage **580** by the siphon portion **540**.

(639) The discharge passage **580** is a flow path through which the clothes treatment agent or fluid collected in the collecting portion **570** is discharged to the outside of the clothes treatment agent housing **500**.

(640) The discharge passage **580** communicates with the siphon portion **540**. The clothes treatment agent or fluid collected in the collecting portion **570** is discharged through the discharge passage **580** via the hollow portion formed through the inside of the siphon portion **540**.

(641) The discharge passage **580** communicates with the discharge space portion **358**. The clothes treatment agent or fluid discharged through the discharge passage **580** may be supplied to the tub **170** through the fluid outlet port **359** via the discharge space portion **358**.

(642) Hereinafter, the support member **600** provided in the clothes treating machine **10** will be described in detail with reference to FIGS. **16** to **17C**.

(643) The support member **600** is configured to support the dispenser assembly **200** at the rear side. The support member **600** may be coupled to the rear protrusion **212** of the dispenser assembly **200**.

(644) The support member **600** is coupled through the rear surface **130** of the housing **100**. After the support member **600** is inserted through the rear surface **130**, it may be rotated to be coupled to the rear surface **130** (see FIG. **4**).

(645) The dispenser assembly **200** may be stably supported by the support member **600**.

(646) The support member **600** includes a support body portion **610**, a support hollow portion **620**, a support rib portion **630**, and a support head portion **640**.

(647) The support body portion **610** defines the body of the support member **600**. The support body

portion **610** extends by a predetermined distance in the lengthwise direction. In addition, the support body portion **610** is formed to have a circular cross section. That is, the support body portion **610** has a cylindrical shape. The shape of the support body portion **610** portion may change to a polygonal column, an elliptical column, or the like.

(648) The support body portion **610** is rotatably coupled through the support member insertion hole **131** of the rear surface **130**.

(649) The support body portion **610** includes a first body part **611** and a second body part **612**. The sum of extended distances of the first body part **611** and the second body part **612** may be equal to or greater than the sum of a distance between one end of the rear protrusion **212** and the rear surface **130** and a protruded length of the rear protrusion **212**.

(650) The first body part **611** extends by a predetermined distance from one end of the support body portion **610** opposite to the support head portion **640**, namely, from the front end in some implementations.

(651) The first body part **611** defines a body of one side of the support body portion **610** in the lengthwise direction. The support hollow portion **620** is formed inside the first body part **611** in a penetrating manner. The rear protrusion **212** of the frame unit **210** may be inserted into the support hollow portion **620**.

(652) The second body part **612** extends by a predetermined distance from one end of the first body part **611** facing the support head portion **640**, namely, from the rear end in some implementations.

(653) The second body part **612** defines a body of another side of the support body portion in the lengthwise direction. The second body part **612** extends by a predetermined distance from one end of the first body part **611** facing the support head portion **640**, namely, from the rear end in some implementations. The support rib portion **630** is formed on an outer circumference of the second body part **612**.

(654) The support head portion **640** is coupled to one end of the second body part **612** opposite to the first body part **611**.

(655) The rear protrusion **212** is inserted into the support hollow portion **620**. An opening is formed on one side of the support hollow portion **620**, namely, on one side opposite to the support head portion **640** in some implementations in a manner of being recessed by a predetermined distance. The rear protrusion **212** may be inserted into the support hollow portion **620** through the opening.

(656) The support hollow portion **620** is formed by being recessed in the lengthwise direction into one end portion of the first body part **611** facing the rear protrusion **212** by a predetermined distance. The support hollow portion **620** extends within the first body part **611** by the predetermined distance in the lengthwise direction.

(657) That is, the support hollow portion **620** is a portion recessed by the predetermined distance in the lengthwise direction into the one end portion of the first body part **611** opposite to the support head portion **640**.

(658) The support hollow portion **620** may extend up to a boundary between the first body part **611** and the second body part **612**. That is, the support hollow portion **620** is not formed inside the second body part **612**. This results from that the support space portion **631** is recessed into an outer circumference of the second body part **612**.

(659) The shape and extended distance of the support hollow portion **620** may be determined to correspond to the shape and protruded length of the rear protrusion **212**.

(660) The support rib portion **630** is configured to reinforce rigidity of the support body portion **610**. In addition, the support rib portion **630** is configured to reduce an overall weight of the support body portion **610**.

(661) The support rib portion **630** is formed on the outer circumference of the second body part **612**. The support rib portion **630** may be provided in plurality formed on the outer circumference of the second body part **612** in a circumferential direction.

(662) The support rib portion **630** may extend in the lengthwise direction. In some

implementations, the support rib portion **630** extends by a predetermined distance in the lengthwise direction of the second body part **612**.

(663) The support rib portion **630** may be formed in a plate-like shape. That is, the support rib portion **630** may be narrow in width in the left and right direction, high in height in the up and down direction, and long in length in the back and forth direction.

(664) Support space portions **631** are formed at both sides of the support rib portion **630** in a direction perpendicular to the lengthwise direction of the support rib portion **630**, namely, at right and left sides in some implementations.

(665) The support space portion **631** is recessed by a predetermined distance into the outer circumference of the second body part **612**. The support space portion **631** may be provided in plurality. The plurality of support space portions **631** may be spaced apart from one another by predetermined distances.

(666) The support rib portion **630** is located between the support space portions **631** adjacent to each other. In other words, it may be said that the support rib portion **630** partitions the support space portions **631**.

(667) The support space portion **631** may extend in the lengthwise direction. In some implementations, the support space portion **631** extends by a predetermined distance in the lengthwise direction of the second body part **612**.

(668) The extended distances of the support rib portion **630** and the support space portion **631** may be determined to be shorter than the extended distance of the second body part **612**. That is, the support rib portion **630** and the support space portion **631** may be formed only on the outer circumference of the second body part **612**.

(669) This results from the fact that the support hollow portion **620** is formed through the inside of the first body part **611** in the lengthwise direction. That is, the support hollow portion **620** and the support space portion **631** are not in communication with each other.

(670) The support head portion **640** is a portion that is gripped by the user to couple the support member **600** to the rear surface **130** after inserting the support member **600** through the rear surface **130**. The support head portion **640** is located on one end of the second body part **612** opposite to the first body part **611**.

(671) When the support member **600** is inserted through the rear surface **130**, the support head portion **640** is located outside the rear surface **130**. That is, the support head portion **640** is exposed to the outside of the housing **100**. Therefore, the user may grip the support head portion **640** to rotate the support head portion **640**, or insert or separate the support member **600** into or from the rear surface **130**.

(672) In some implementations, the support head portion **640** is formed in a circular plate shape. The shape of the support head portion **640** may change to any shape that the user may grip.

(673) The support head portion **640** includes a coupling protrusion **641**, a direction indicating groove **642**, a guide protrusion **643**, and a grip protrusion **644**.

(674) The coupling protrusion **641** is a portion where the support member **600** inserted through the support member insertion hole **131** is coupled to the rear surface **130**. The coupling protrusion **641** may be coupled to the support member coupling portion **132a** as the support member **600** is rotated.

(675) When the support member **600** is inserted through the support member insertion hole **131**, the coupling protrusion **641** is inserted into the support member coupling hole **132**. When the support member **600** is rotated, the coupling protrusion **641** is rotated together and coupled to the support member coupling hole **132** defined on one end portion of the support member coupling portion **132a**.

(676) The coupling protrusion **641** may be provided in any shape that may be coupled to and separated from a groove or another protrusion. In some implementations, the coupling protrusion **641** and the support member coupling portion **132a** may be coupled to each other in a snapping

manner.

(677) The coupling protrusion **641** is provided in plurality radially on an inner side of one surface of the support head portion **640** facing the support body portion **610** in a circumferential direction. The plurality of coupling protrusions **641** are spaced apart from one another by predetermined distances. In some implementations, the coupling protrusion **641** is provided by three, but the number may vary.

(678) The coupling protrusion **641** and the guide protrusion **643** may be alternately arranged on the one surface of the support head portion **640** along the circumferential direction.

(679) The coupling protrusion **641** includes a first protrusion **641a** and a second protrusion **641b**.

(680) The first protrusion **641a** protrudes from the one surface of the support head portion **640** facing the support body portion **610** by a predetermined distance at a predetermined angle with respect to the one surface. In some examples, a cross-sectional area of the first protrusion **641a** may be smaller than that of the support member coupling hole **132**.

(681) The second protrusion **641b** protrudes from one end portion of the first protrusion **641a** at a predetermined angle with respect to the first protrusion **641a**. In some implementations, the second protrusion **641b** may protrude at an acute angle with respect to the first protrusion **641a**.

(682) When the support member **600** is rotated in one direction, the second protrusion **641b** may also be rotated so as to be coupled to the support member coupling portion **132a**. When the support member **600** is rotated in a direction different from the one direction, the second protrusion **641b** may also be rotated so as to be released from the support member coupling portion **132a**.

(683) The direction indicating groove **642** allows the user to recognize a rotating direction of the support member **600**. That is, the direction indicating groove **642** may indicate either a direction in which the support member **600** is to be coupled to the rear surface **130** or a direction in which the support member **600** is to be separated from the rear surface **130**.

(684) The direction indicating groove **642** may be formed through the support head portion **640**. The direction indicating groove **642** may be formed to surround the guide protrusion **643**.

(685) The direction indicating groove **642** may be configured to indicate a clockwise or counterclockwise direction. In some implementations, the direction indicating groove **642** is configured to indicate a counterclockwise direction.

(686) The direction indicating groove **642** is provided in plurality formed on a radially inner side of the support head portion **640** in the circumferential direction. The plurality of direction indicating grooves **642** are spaced apart from one another by predetermined distances. In some implementations, the direction indicating groove **642** is provided by three, but the number may vary.

(687) By virtue of the direction indicating groove **642**, the user may recognize the rotating direction of the support member **600** and may easily manipulate the support member **600**.

(688) The guide protrusion **643** is moved in response to the rotation of the support member **600** to limit a rotation path and a rotation distance of the support member **600**.

(689) The guide protrusion **643** protrudes by a predetermined distance from the one surface of the support head portion **640** facing the support body portion **610**. The guide protrusion **643** may be surrounded by the direction indicating groove **642**.

(690) The guide protrusion **643** is provided in plurality on a radially inner side of the one surface of the support head portion **640** in the circumferential direction. The plurality of guide protrusions **643** are spaced apart from one another by predetermined distances. In some implementations, the guide protrusion **643** is provided by three, but the number may vary.

(691) The grip protrusion **644** is a portion gripped by the user. The user may easily rotate the support member **600** by gripping the grip protrusion **644**. In addition, the user may grip the grip protrusion **644** to insert the support member **600** into the rear surface **130** or separate it from the rear surface **130**.

(692) The grip protrusion **644** protrudes by a predetermined distance from another surface opposite

to the one surface of the support head portion **640** facing the support body portion **610**.

(693) In some implementations, the grip protrusion **644** extends in a radial direction of the support head portion **640**. The grip protrusion **644** may be formed in any shape that the user may grip.

(694) In some implementations, the clothes treating machine **10** may be configured to limit a direction in which the storage unit **400** is inserted into the drawer **300** and a direction in which the storage unit **400** is detached from the drawer **300**.

(695) Hereinafter, a process of detaching the storage unit **400** will be described in detail with reference to FIG. **18**.

(696) FIG. **18** illustrates a rear side of the drawer frame **320** in a state in which the storage unit **400** has been accommodated.

(697) The rear end part **330** is disposed on the rear side of the drawer frame **320**. The rear end part **330** includes the partition member **331**. The partition member **331** partitions the opening **332** formed on the rear end part **330** into the check valve opening **332a** at the lower side and the sensor opening **332b** at the upper side. That is, the partition member **331** blocks the communication between the check valve opening **332a** and the sensor opening **332b**.

(698) The check valve **416**, **426** is provided on the rear lower side of the storage unit. The check valve **416**, **426** protrudes by a predetermined distance.

(699) Therefore, the check valve **416**, **426** located in the check valve opening **332a** cannot pass through the sensor opening **332b** due to the partition member **331**. The rear side of the storage unit **400** where the check valve **416**, **426** is located cannot be inserted later or separated earlier than the front side.

(700) In some implementations, in order for the storage unit **400** to be accommodated in the drawer **300**, the rear side of the storage unit **400** may be inserted first. In some examples, in order for the storage unit **400** to be detached from the drawer **300**, the rear side of the storage unit **400** may be separated later.

(701) Specifically, when it is intended to perpendicularly insert the storage unit **400**, the check valve **416**, **426** passing through the upper sensor opening **332b** is stopped by the partition member **331**.

(702) Similarly, when it is intended to insert the storage unit **400** from its one side in the lengthwise direction, namely, from the front side in some implementations, the check valve **416**, **426** passing through the upper sensor opening **332b** is stopped by the partition member **331**.

(703) This is because, as described above, the check valve opening **332a** and the sensor opening **332b** do not communicate with each other by the partition member **331**.

(704) Therefore, the rear side of the storage unit **400** may first be inserted into the drawer **300** while maintaining a state in which the upper side of the storage unit **400** is located higher than the rear side of the storage unit **400**.

(705) That is, the sensor portion **417**, **427** is first inserted into the sensor opening **332b**, and then the check valve **416**, **426** is inserted into the check valve opening **332a**.

(706) In other words, the storage unit **400** is inserted into the space of the drawer frame **320** in a state where a distance between one side of the storage unit **400** in the lengthwise direction on which the check valve **416**, **426** is located, namely, the rear side of the storage unit **400** in some implementations, and one side of the drawer frame **320** on which the rear end part **330** is located, namely, the rear side of the drawer frame **320** in some implementations, is shorter than a distance between another side of the storage unit **400** in the lengthwise direction, namely, the front side of the storage unit **400** in some implementations, and another side of the drawer frame **320** in the lengthwise direction, namely, the front side of the drawer frame **320** in some implementations.

(707) In some implementations, the storage unit **400** is inserted into the space of the drawer frame **320** in a state in which the another side of the storage unit **400** in the lengthwise direction, namely, the front side of the storage unit **400** in some implementations, is spaced farther apart from the drawer frame **320** than the one side of the storage unit **400** in the lengthwise direction having the

check valve **416, 426**, namely, the rear side of the storage unit **400** in some implementations.

(708) For example, the storage unit **400** may be inserted into the space of the drawer frame **320** in a manner that one surface in the lengthwise direction, namely, a lower surface in some implementations, forms an acute angle with the bottom portion **324** formed on one surface of the drawer frame **320**, namely, on the lower side in some implementations, at a vertex which corresponds to one side of the storage unit **400** where the check valve **416, 426** is located.

(709) Accordingly, the leakage of the clothes treatment agent through the through hole **415, 425** formed on the front side of the storage unit **400** may be prevented during the process of inserting the storage unit **400** into the drawer **300**.

(710) In addition, when desiring to perpendicularly detach the storage unit **400**, the check valve **416, 426** located in the lower check valve opening **332a** is stopped by the partition member **331**.

(711) Similarly, when desiring to detach the storage unit **400** starting from its rear side, the check valve **416, 426** located in the lower check valve opening **332a** is stopped by the partition member **331**.

(712) Therefore, the rear side of the storage unit **400** may first be detached from the drawer **300** while maintaining a state in which the upper side of the storage unit **400** is located higher than the lower side of the storage unit **400**.

(713) In some implementations, the check valve **416, 426** is first separated from the check valve opening **332a**, and then the sensor portion **417, 427** is separated from the sensor opening **332b**.

(714) Even in this case, the storage unit **400** is separated from the space of the drawer frame **320** in a state where a distance between one side of the storage unit **400** in the lengthwise direction on which the check valve **416, 426** is located, namely, the rear side of the storage unit **400** in some implementations, and one side of the drawer frame **320** on which the rear end part **330** is located, namely, the rear side of the drawer frame **320** in some implementations, is shorter than a distance between another side of the storage unit **400** in the lengthwise direction, namely, the front side of the storage unit **400** in some implementations, and another side of the drawer frame **320** in the lengthwise direction, namely, the front side of the drawer frame **320** in some implementations.

(715) In some implementations, the storage unit **400** may be separated from the space of the drawer frame **320** in a state in which the another side of the storage unit **400** in the lengthwise direction, namely, the front side of the storage unit **400** in some implementations, is spaced farther apart from the drawer frame **320** than the one side of the storage unit **400** in the lengthwise direction having the check valve **416, 426**, namely, the rear side of the storage unit **400** in some implementations.

(716) In other words, the storage unit **400** is separated from the space of the drawer frame **320** in a manner that one surface in the lengthwise direction, namely, a lower surface in some implementations, forms an acute angle with the bottom portion **324** formed on one surface of the drawer frame **320**, namely, on the lower side in some implementations, at a vertex which corresponds to one side of the storage unit **400** where the check valve **416, 426** is located.

(717) Accordingly, the through hole **415, 425** formed through the front side of the storage unit **400** faces an upper side or a direction forming a predetermined inclination with the upper side during the process of detaching the storage unit **400** from the drawer **300**.

(718) Therefore, a phenomenon in which the clothes treatment agent accommodated in the storage unit **400** leaks through the through hole **415, 425** during the insertion and separation of the storage unit **400** may be prevented.

(719) In some implementations, the clothes treating machine **10** may minimize the residual of the clothes treatment agent accommodated in the storage unit **400**.

(720) Hereinafter, a process of minimizing the residual of the clothes treatment agent in the inner space of the storage unit **400** will be described in detail, with reference to FIGS. **19** and **20**.

(721) The clothes treatment agent accommodated in the inner space of the storage body portion **411, 421** flows to the rear space of the storage body portion **411, 421** along the discharge inclined portion **430**.

(722) The discharge inclined portion **430** includes the first bottom surface **431** inclined toward the rear side, and the second bottom surface **432** and the third bottom surface **433** located lower than the first bottom surface **431**. In addition, the second bottom surface **432** is located lower than the third bottom surface **433** in height.

(723) The first joint surface **434** connecting the first bottom surface **431** and the third bottom surface **433** is formed such that the rear side is lower than the front side in height. Likewise, the second joint surface **435** connecting the second bottom surface **432** and the third bottom surface **433** is also formed such that the rear side is lower than the front side in height.

(724) That is, the discharge inclined portion **430** is formed to be inclined from the front side to the rear side. Accordingly, the clothes treatment agent may flow from the front side to the rear side along the discharge inclined portion **430**.

(725) The discharge inclined portion **430** is provided with the first bottom surface **431**, the first joint surface **434**, the third bottom surface **433**, the second joint surface **435**, and the second bottom surface **432**, which are sequentially disposed from one side of the discharge inclined portion **430** facing the grip portion **310** to another side opposite to the one side.

(726) Accordingly, the clothes treatment agent flows sequentially along the first bottom surface **431**, the first joint surface **434**, the second collection space portion **437**, and the second joint surface **435**, so as to be introduced into the second bottom surface **432**, that is, the first collection space portion **436**.

(727) The first collection space portion **436** is located in the rearmost side of the discharge inclined portion **430**. Therefore, the clothes treatment agent is finally collected in the first collection space portion **436**.

(728) The check valve **416**, **426** is partially accommodated in the first collection space portion **436**. The intake port **416d**, **426d** is formed through one side, namely, a lower side of the check valve cylinder portion **416a**, **426a** facing the second bottom surface **432**.

(729) The first collection space portion **436** and the inner space of the check valve cylinder portion **416a**, **426a** communicate with each other through the intake port **416d**, **426d**. Accordingly, the clothes treatment agent collected in the first collection space portion **436** may flow into the inner space of the check valve cylinder portion **416a**, **426a** via the intake port **416d**, **426d**.

(730) In some implementations, the primary pump valve **224** may be partially accommodated in the inner space of the check valve cylinder portion **416a**, **426a**. The inlet port **224d** is formed through the primary valve cylinder portion **224a** accommodated in the inner space of the check valve cylinder portion **416a**, **426a**.

(731) The inlet port **224d** is located on one side, namely, a lower side of the primary valve cylinder portion **224a** facing the intake port **416d**, **426d**.

(732) When the primary pump valve **224** is inserted into the check valve **416**, **426**, the inner space of the check valve cylinder portion **416a**, **426a** communicates with the inner space of the primary valve cylinder portion **224a** through the inlet port **224d**.

(733) Accordingly, the clothes treatment agent introduced into the inner space of the check valve cylinder portion **416a**, **426a** may flow into the inner space of the primary valve cylinder portion **224a** through the inlet port **224d**.

(734) At this time, when the clothes treatment agent pump unit **220** is operated, pressure for sucking an external fluid is generated in the inner space of the check valve cylinder portion **416a**, **426a**, the inner space inside the primary valve cylinder portion **224a**, and the inner space of the secondary valve cylinder portion **225a**.

(735) Accordingly, the clothes treatment agent collected in each collection space portion **436** and **437**, particularly, the first collection space portion **436** may flow to the clothes treatment agent supply unit **240** communicating with the discharge portion **226** by the negative pressure.

(736) In summary, the clothes treatment agent accommodated in the storage unit **400** flows to the first collection space portion **436** where the check valve **416**, **426** is located along the discharge

inclined portion **430**. Accordingly, even when the amount of clothes treatment agents accommodated is sufficient, the clothes treatment agent may be automatically supplied to the drawer **300** effectively.

(737) The discharge inclined portion **430** is configured such that its height is lowered toward the rear side. Therefore, the clothes treatment agent is collected by gravity in the first collection space portion **436** formed in the rearmost side of the storage container **410, 420**.

(738) Accordingly, the clothes treatment agent is collected in the first collection space portion **436** without being scattered in the storage container **410, 420**. Accordingly, the residual clothes treatment agent may be collected smoothly.

(739) The first collection space portion **436** communicates with the check valve **416, 426**, the primary pump valve **224**, and the secondary pump valve **225**. When negative pressure is generated in response to the operation of the clothes treatment agent pump unit **220**, the clothes treatment agent collected in the first collection space portion **436** may flow to the clothes treatment agent pump unit **220** through those components (dotted arrow in FIG. **20**).

(740) Accordingly, the collected clothes treatment agent may be supplied to the clothes treatment agent supply unit **240**. Therefore, the amount of clothes treatment agents remaining inside the storage container **410, 420** may be minimized, thereby minimizing contamination due to the remaining clothes treatment agent.

(741) In some implementations, the clothes treating machine **10** may reduce or prevent residual due to overflow from clothes treatment agent housing **500**.

(742) For example, the clothes treating machine **10** may be configured such that the clothes treatment agent or fluid overflowed from the clothes treatment agent housing **500** does not remain in the inner space of the drawer **300**.

(743) Hereinafter, a process of preventing the overflowed clothes treatment agent or fluid from remaining in the inner space of the drawer **300** will be described in detail with reference to FIGS. **21 to 23**.

(744) The clothes treatment agent housing **500** is accommodated in the housing accommodation part **350** of the drawer **300**. At this time, the clothes treatment agent housing **500** may be accommodated in the drawer **300** in a manner of being spaced a predetermined distance apart from the lower surface **351** and the inner wall **323** of the rear side.

(745) Specifically, the support protrusion surface **511** disposed on the front side of the clothes treatment agent housing **500** is supported by the support rod **352**. In addition, the lower side of the clothes treatment agent housing **500** is supported by the support pin **353**.

(746) Further, the alignment pin **512** protrudes from the rear lower side of the clothes treatment agent housing **500**. When the alignment pin **512** is inserted into the alignment pin insertion groove **354a**, the lower side of the outer circumferential surface **510** of the clothes treatment agent housing **500** is spaced a predetermined distance apart from the upper surface of the support boss portion **354**.

(747) In some implementations, the protruding portion **355** may protrude by a predetermined distance from the second plane portion, which is located at the rear, of the second plane portions of the inner wall **323** surrounding the housing accommodation part **350**. The first surface **355a** of the protruding portion **355** extends in the up and down direction, and the second surface **355b** is formed to be inclined downward.

(748) In addition, the spacing protrusion **530** protrudes by a predetermined distance from the third part **510c** of the outer circumferential surface **510** located at the rear side. The spacing protrusion **530** is brought into contact with the first surface **355a** of the protruding portion **355**.

(749) Therefore, the rear side of the housing accommodation part **350** is spaced apart from the second plane portion, which is located at the rear, of the second plane portions of the inner wall **323** by the protruded distance of the protruding portion **355** and the protruded distance of the spacing protrusion **530**.

(750) The space defined by the spacing configuration is defined as the space portion **356**. The space portion **356** communicates with the discharge space portion **358** by a space defined between the alignment pin **512** and the support boss portion **354**.

(751) Accordingly, the clothes treatment agent or fluid overflowed from the clothes treatment agent housing **500** may flow to the discharge space portion **358** through the space portion **356**. The clothes treatment agent or fluid flowed to the discharge space portion **358** may be supplied to the tub **170**.

(752) As a result, the clothes treatment agent or fluid overflowed from the clothes treatment agent housing **500** is not introduced into the storage unit **400** located adjacent to the clothes treatment agent housing **500**.

(753) Therefore, even when the clothes treatment agent or fluid is excessively supplied to the clothes treatment agent housing **500**, the overflowed clothes treatment agent or fluid may all be discharged to the tub **170** (refer to dotted arrows in FIGS. **21** to **23**). Accordingly, the overflowed clothes treatment agent or fluid does not remain in the inner space of the drawer **300**.

(754) This may result in preventing contamination of the components of the drawer **300** due to the overflowed clothes treatment agent or fluid.

(755) In some implementations, the dispenser assembly **200** may be supported by support member **600**.

(756) The clothes treating machine **10** includes the support member **600** for stably supporting the dispenser assembly **200**.

(757) Hereinafter, the process in which the dispenser assembly **200** of the clothes treating machine **10** is supported will be described in detail with reference to FIGS. **24** to **26**.

(758) As described above, the support member insertion hole **131** is formed through the rear surface **130**. The support body portion **610** of the support member **600** is coupled through the support member insertion hole **131**.

(759) In addition, the support member coupling hole **132** and the support member guide hole **133** are provided in plurality formed on the radially outer side of the support member insertion hole **131** along the circumferential direction. The coupling protrusion **641** is inserted into the support member coupling hole **132**, and the guide protrusion **643** is inserted into the support member guide hole **133**.

(760) The support member coupling hole **132** and the support member guide hole **133** may each be formed in an arcuate shape. In addition, the plurality of support member coupling holes **132** and support member guide holes **133** may be alternately arranged along the circumferential direction.

(761) The support member coupling portion **132a** is formed on one end portion of each support member coupling hole **132** in the circumferential direction. The coupling protrusion **641** of the support member **600** is coupled to the support member coupling portion **132a**. The coupling may be achieved by rotating the inserted support member **600**.

(762) Referring to FIG. **25**, a state in which the support member **600** is inserted into the rear surface **130** through the process is illustrated.

(763) First, the support body portion **610** is inserted through the support member insertion hole **131**. The support body portion **610** may be inserted through the rear surface **130** until the rear protrusion **212** is completely inserted into the support hollow portion **620**.

(764) In some implementations, when the insertion of the support body portion **610** is completed, one end of the rear protrusion **212** may be spaced a predetermined distance apart from one end of the support hollow portion **620** facing the second body part **612**, namely, from a boundary between the first body part **611** and the second body part **612**.

(765) At this time, the coupling protrusion **641** is inserted into the support member coupling hole **132**, and the guide protrusion **643** is inserted into the support member guide hole **133**.

(766) The user easily rotates the support member **600** by gripping the grip protrusion **644**. In some implementations, the direction indicating groove **642** is formed in the counterclockwise direction,

and thus the support member **600** may be rotated in the counterclockwise direction.

(767) The coupling protrusion **641** is rotated along the support member coupling hole **132**. In addition, the guide protrusion **643** is rotated along the support member guide hole **133**. By virtue of the guide protrusion **643**, the support member **600** may be rotated without being linearly moved.

(768) The rotational movement may proceed until the coupling protrusion **641** is coupled to the support member coupling portion **132a**.

(769) When the coupling protrusion **641** is coupled to the support member coupling portion **132a**, the rotation of the support member **600** is terminated. In some implementations, the coupling protrusion **641** and the support member coupling portion **132a** may be fitted to each other in a snapping manner.

(770) In addition, it will be understood that the process is performed in reverse so that the support member **600** may be separated.

(771) Hereinafter, the state in which the support member **600** is completely coupled to the rear surface **130** and the rear protrusion **212** will be described in more detail with reference to FIG. **26**.

(772) The rear protrusion **212** is inserted into the support hollow portion **620**. The end portion of the rear protrusion **212** may be spaced a predetermined distance apart from the boundary between the first body part **611** and the second body part **612** in which the support hollow portion **620** is formed. In some implementations, the end portion of the rear protrusion **212** may be inserted into the support hollow portion **620** until it contacts the boundary.

(773) The plurality of tooth portions **212a** is formed on the outer circumference of the rear protrusion **212**. The tooth portions **212a** may reinforce rigidity of the rear protrusion **212** in the lengthwise direction.

(774) In addition, the rear protrusion **212** is configured to increase in diameter in a direction toward the lower body portion **211** from one end thereof. Accordingly, the rear protrusion **212** may be easily inserted into the support hollow portion **620**.

(775) The support rib portion **630** is formed on an outer circumference of the second body part **612**. The support rib portion **630** may reinforce rigidity of the support body portion **610** in the lengthwise direction.

(776) One surface of the support head portion **640** facing the support body portion **610** is in contact with the rear surface **130**. Therefore, the support member **600** may be restricted from being fluctuated in the up and down direction, resulting in stably maintaining the coupled state between the rear protrusion **212** and the support member **600**.

(777) In addition, the support member **600** is located in a space portion, in which no other members are located, in the inner space **S** of the housing **100**. That is, the support member **600** does not interfere with other components provided in the inner space **S** of the housing **100**.

(778) As described above, the dispenser assembly **200** may be supported by the housing frame **110** on the front side and the right side, and by the support member **600** on the rear side.

(779) Therefore, compared to the case where only the front side and the right side of the dispenser assembly **200** are supported, the support member **600** may be stably supported so as to be kept located on its original position.

(780) Moreover, several components, such as the clothes treatment agent pump unit **220** and the like, which have great weights, are provided at the rear side of the dispenser assembly **200**.

Considering this, the dispenser assembly **200** may be more stably supported by the support member **600** in the inner space **S** of the housing **100**.

(781) Therefore, even if a predetermined vibration occurs as the clothes treating machine **10** is operated, the dispenser assembly **200** may be stably kept located on its original position. As a result, the clothes treatment agent or fluid may be stably supplied to the tub **170**. Accordingly, clothes treatment efficiency of the clothes treating machine **10** may be improved.

(782) Although described above with reference to the example implementations of the present

disclosure, it will be understood that various changes and modifications may be made by those skilled in the art within the scope of the claims.

Claims

1. A drawer of a clothes treating machine, the drawer comprising: a drawer frame that extends in a lengthwise direction and defines an inner space and an outer space that are partitioned from each other, the inner space including a housing accommodation part; a storage configured to be disposed in the outer space of the drawer frame, the storage being to accommodate a clothes treatment agent therein; and a clothes treatment agent housing configured to be disposed in the housing accommodation part of the drawer frame, wherein the clothes treatment agent housing comprises a spacing protrusion that is disposed at an outer wall of the clothes treatment agent housing and configured to separate the clothes treatment agent housing from the housing accommodation part.
2. The drawer of claim 1, wherein the spacing protrusion protrudes from the outer wall of the clothes treatment agent housing toward an inner wall of the housing accommodation part.
3. The drawer of claim 2, wherein the spacing protrusion extends along the outer wall of the clothes treatment agent housing in a vertical direction orthogonal to the lengthwise direction.
4. The drawer of claim 3, wherein the drawer frame further comprises a protruding portion that is disposed in the housing accommodation part and protrudes from a surface of the drawer frame surrounding the housing accommodation part toward the clothes treatment agent housing.
5. The drawer of claim 4, wherein the spacing protrusion is one of a plurality of spacing protrusions that are spaced apart from one another and that protrude from a surface of the clothes treatment agent housing.
6. The drawer of claim 5, wherein the protruding portion is one of a plurality of protruding portions and configured to face one of the plurality of spacing protrusions.
7. The drawer of claim 4, wherein the spacing protrusion comprises: a first spacing surface that defines an upper surface of the spacing protrusion; a second spacing surface that defines a rear surface of the spacing protrusion and extends downward from a rear end portion of the first spacing surface; and a third spacing surface that defines a lower surface of the spacing protrusion.
8. The drawer of claim 7, wherein the protruding portion comprises: a first surface that extends in an up-down direction; and a second surface that is inclined with respect to the first surface and extends from an upper side of the first surface to a surface of the housing accommodation part.
9. The drawer of claim 8, wherein the second spacing surface of the spacing protrusion is configured to be in contact with the first surface of the protruding portion to thereby define a space portion between the clothes treatment agent housing and the housing accommodation part, the space portion being configured to receive a portion of the clothes treatment agent overflown from the clothes treatment agent housing.
10. The drawer of claim 6, wherein the plurality of spacing protrusions and the plurality of protruding portions are configured to be in contact with each other, respectively, to thereby define a space portion between the clothes treatment agent housing and the housing accommodation part, the space portion being configured to receive a portion of the clothes treatment agent overflown from the clothes treatment agent housing.
11. The drawer of claim 1, wherein the drawer frame further comprises a support pin that is disposed in the housing accommodation part and protrudes from a lower portion of the housing accommodation part, the support pin being configured to support the clothes treatment agent housing.
12. The drawer of claim 1, wherein the drawer frame further defines a fluid outlet port that passes through a lower side of the housing accommodation part and is open to an outside of the drawer frame.
13. The drawer of claim 12, wherein the clothes treatment agent housing is configured to be located

above the fluid outlet port.

14. The drawer of claim 12, wherein the drawer frame further comprises a protruding portion that is disposed in the housing accommodation part, and wherein the fluid outlet port is defined at a portion closer to the protruding portion than to a front of the drawer frame.

15. The drawer of claim 1, wherein the drawer frame further defines a manual introduction part configured to receive the clothes treatment agent, and wherein the drawer frame comprises a partition plate that is located between the manual introduction part and the housing accommodation part and partitions the manual introduction part and the housing accommodation part from each other.

16. The drawer of claim 1, wherein the storage is configured to be accommodated in the inner space of the drawer frame and to surround the housing accommodation part.

17. The drawer of claim 1, wherein the storage is configured to store a first clothes treatment agent that is liquid, and wherein the clothes treatment agent housing is configured to store a second clothes treatment agent that is liquid or powder.

18. The drawer of claim 1, wherein the storage comprises a first storage body and a second storage body that are separate and configured to be inserted into the outer space of the drawer frame, and wherein the first storage body and the second storage body define side recesses, respectively, the side recesses being configured to face each other to thereby define the inner space of the drawer frame therebetween.

19. The drawer of claim 18, wherein the drawer frame comprises a partition plate that is located in the inner space of the drawer frame and partitions the inner space of the drawer frame into the housing accommodation part and a manual introduction part configured to receive the clothes treatment agent.

20. The drawer of claim 1, wherein the drawer frame defines an alignment pin insertion groove at a bottom surface of the housing accommodation part, and wherein the clothes treatment agent housing comprises an alignment pin that protrudes from a lower portion of the clothes treatment agent housing and is configured to insert into the alignment pin insertion groove.
