

COMMODITY STORAGE RACK OF AUTOMATIC VENDING MACHINE

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0001]

The present invention relates to a commodity storage rack of an automatic vending machine, which aligns commodities, such as canned beverage, beverage packed in PET bottles, etc., in a longitudinal row to receive the same.

2. Background Art

[0002]

Known as an automatic vending machine of this kind is one, in which commodities received in an interior of a body case are made directly visible. The automatic vending machine comprises an external door and an internal door, which are provided on a front of a body case formed as a heat insulating housing to have large, transparent windows so as to enable through-vision of an interior, commodity storage racks constructed to arrange a plurality of commodity columns, each of which aligns commodities, such as canned beverage, beverage packed in PET bottles, etc., in a longitudinal row to receive the same, in vertical stages and left and right rows in an interior of the body case, a bucket unit for reception of a commodity discharged from the commodity column in a position forwardly of the commodity storage racks, and a X-Y conveyance

mechanism that mounts thereon the bucket unit to move vertically and left and right, the automatic vending machine being constructed such that the X-Y conveyance mechanism moves on the basis of a sales command to have the bucket unit having access to a front of a selected commodity column, and to transfer a commodity discharged from the commodity column onto the bucket unit to move the bucket unit to a position of a commodity take-out port of the external door to carry out the commodity. Illuminating means (for example, a fluorescent lamp) for illumination of commodities in the interior is provided at both left and right ends and an upper end of the external door, the illuminating means being used to illuminate commodities received in the commodity storage racks brightly to heighten the commodity displaying function.

[0003]

The commodity columns in the commodity storage rack are divided into a plurality of rows in a left and right direction by column partitioning members laid longitudinally. Commodities are received in the commodity column (commodity reception passage) to align in a longitudinal row and commodities being different in size (width) are received by changing the passage width of the commodity reception passage. In changing the passage width of the commodity column in conformity to a size of a sales commodity in a manner described above, the passage width of an adjacent commodity column will

be also changed when the column partitioning member is moved. Therefore, while the column partitioning member is mounted in an original mounted position, a width attachment is mounted to and dismounted from the column partitioning member (for example, JP-A-2007-317154).

[0004]

The automatic vending machine disclosed in JP-A-2007-317154 is excellent in that by mounting a width attachment to the column partitioning member, the passage width of the commodity reception passage can be made an appropriate passage width conformed to a commodity size. Since a plurality of commodity reception passages are formed on a single commodity storage rack and commodity storage racks are arranged vertically in multiple stages, however, it is necessary to prepare a multiplicity of width attachments. Accordingly, there are involved problems that parts are increased in number to bring about an increase in cost and that it is necessary to ensure that place in an automatic vending machine, in which width attachments being not used are stored.

SUMMARY OF THE INVENTION

[0005]

Hereupon, the invention has been thought of in view of the above point and has its object to solve the problems described above and to provide a commodity storage rack of an

automatic vending machine, by which a passage width in a commodity column can be readily changed according to a commodity size without the use of any width attachment.

[0006]

In order to attain the object, according to a first aspect of the invention, there is provided a commodity storage rack of an automatic vending machine, which comprises a plurality of commodity storage racks in a vertical direction in an interior of a body case, and in which a plurality of commodity columns are formed in a left and right direction by column partitioning members laid longitudinally in the commodity storage rack, and commodities being different in size (width) can be received in the commodity columns, the commodity storage rack being characterized in that the column partitioning members are invariable in mounted positions and can be inclined.

[0007]

Also, according to a second aspect of the invention, in the commodity storage rack of an automatic vending machine according to the first aspect the column partitioning members comprise a shaft, which is lengthy to extend longitudinally, of which cross section is in the form of a longitudinal rectangle, and which projects from both longitudinal ends thereof, the shaft being formed in an eccentric position of the rectangular cross section.

[0008]

Also, according to a third aspect of the invention, in the commodity storage rack of an automatic vending machine according to the first aspect the column partitioning members are chamfered at least at one ends thereof and can be inclined with the one ends as a fulcrum.

[0009]

With the commodity storage rack of an automatic vending machine, according to the first aspect of the invention, which comprises a plurality of commodity storage racks in a vertical direction in an interior of a body case, and in which a plurality of commodity columns are formed in a left and right direction by column partitioning members laid longitudinally in the commodity storage rack, and commodities being different in size (width) can be received in the commodity columns, the column partitioning members are invariable in mounted positions and can be inclined, whereby the column partitioning members are caused to incline and so the column partitioning members are caused thereby to protrude into commodity passages of the commodity columns to enable changing passage widths thereof and at this time, mounted positions of the column partitioning members are not moved from the original mounted positions, so that it is possible to maintain the passage width of an adjacent commodity column constant at all times. Accordingly, there is produced an effect that the passage width

of the commodity column can be changed to a passage width conformed to a commodity size without the provision of an accessory (width attachment) in order to change the passage width of the commodity column.

[0010]

Also, according to the second aspect of the invention, in the commodity storage rack of an automatic vending machine according to the first aspect the column partitioning members comprise a shaft, which is lengthy to extend longitudinally, of which cross section is in the form of a longitudinal rectangle, and which projects from both longitudinal ends thereof, the shaft being formed in an eccentric position of the rectangular cross section, whereby when the column partitioning member is inclined, the column partitioning member can change the passage width of the commodity column to a passage width conformed to a commodity size while maintaining the passage width of an adjacent commodity column constant.

[0011]

Also, according to the third aspect of the invention, the commodity storage rack of an automatic vending machine according to the first aspect the column partitioning members are chamfered at least at one ends thereof and can be inclined with the one ends as a fulcrum, whereby the column partitioning member is inclined to enable changing the passage width of the

commodity column to a passage width conformed to a commodity size, and at this time, since one end (an opposite end to an end, which sets a passage width) of the column partitioning member is chamfered, the column partitioning member does not protrude into an adjacent commodity column when the column partitioning member is inclined, so that it is possible to maintain a passage width thereof constant at all times.

BRIEF DESCRIPTION OF THE DRAWINGS

[0029]

Fig. 1 is a front view showing the whole construction of an automatic vending machine according to Embodiment 1 of the invention.

Fig. 2 is a perspective view showing commodity storage racks in the automatic vending machine of Fig. 1 as viewed from forward, rightward, and obliquely upward.

Fig. 3 is a perspective view showing back faces of the commodity storage racks of Fig. 2.

Fig. 4 is a A-A cross sectional view of Fig. 2.

Fig. 5 is a perspective view showing commodity storage racks in an automatic vending machine according to Embodiment 2 of the invention as viewed from forward, rightward, and obliquely upward.

Fig. 6 is a B-B cross sectional view of Fig. 5.

DETAILED DESCRIPTION OF THE INVENTION

[0012]

Subsequently, a commodity storage rack of an automatic vending machine, according to embodiments of the invention, will be described with reference to the drawings. Figs. 1 to 4 show commodity storage racks of an automatic vending machine, according to Embodiment 1 of the invention, Fig. 1 being a front view showing the whole construction of the automatic vending machine, Fig. 2 being a perspective view showing commodity storage racks in the automatic vending machine of Fig. 1 as viewed from forward, rightward, and obliquely upward, Fig. 3 being a perspective view showing back faces of the commodity storage racks of Fig. 2, and Fig. 4 being a A-A cross sectional view of Fig. 2.

[0013]

In the drawings, the reference numeral 1 denotes a body case formed as a heat insulating housing, which is opened at a front thereof and in the form of a rectangular parallelepiped, of an automatic vending machine, and 2 a single swing type external door provided on the front of the body case 1 to be made openable by a hinge mechanism (not shown), the external door 2 being provided with a through-vision window 21, which is covered by a transparent member to enable visually recognizing commodities received in the interior of the body case 1 and on a corner on a right end of which is provided an

operating panel 3. A ten-keys push button 31 as an input unit to indicate a commodity being purchased by means of a combination of numerals, a liquid crystal display 32 positioned above the ten-keys push button 31 to indicate marketing information, a coin slot 33 below the liquid crystal display, a return lever 34, and a paper money insertion port 35 are arranged crosswise on the operating panel 3 and a lighting exclusive push button 5 is further provided below the above members. The lighting exclusive push button 5 is operated by a user himself or herself to light up a fluorescent lamp 4, which has been lighted out with a view to power-saving, to illuminate commodities. In addition, the reference numeral 36 denotes a door locking device (key groove), 37 a coin return port, and 38 a commodity take-out port, the commodity take-out port 38 being covered by a single swing type opening and closing take-out door 381. In addition, while depiction is omitted, an antenna section, over which an IC card keeping information of cash and recording information of electronic money on board instead of cash is held up, is provided on the operating panel 3 in an automatic vending machine.

[0014]

An internal door (hiding behind the external door 2 to be unseen) for opening and closing of the front opening of the body case 1 is provided between the body case 1 and the external door 2, the internal door also including a through-vision

window, which is mounted to the body case 1 by a hinge mechanism to be made openable and is covered by a transparent member to enable visually recognizing commodities received in the interior of the body case 1. In this manner, the front opening of the body case 1 is covered by a dual transparent member, that is, the internal door 3 and the external door 2 to maintain the thermal insulation performance. Commodity storage racks 11 are arranged in a plurality of stages in a vertical direction in the interior of the body case 1 to be made forwardly drawable, commodity columns (commodity reception passages) 13 in a plurality of rows are formed on the respective commodity storage racks 11 in a left and right direction by column partitioning members 12 and commodities are received in the commodity column 13 to be arranged longitudinally in a single line.

[0015]

As shown in Fig. 2, the commodity storage racks 11 comprise commodity shelves 110 comprising a plurality of crosswise bridges 111, lengthwise bridges 112 joined to both left and right ends of the crosswise bridges 111, and a backwall 113 provided upwardly upright from the aftermost crosswise bridge 111 (refer to Fig. 3), and the longitudinally extending column partitioning members 12 are mounted to the commodity shelf 110. Mounting of and the structure of the column partitioning member 12 will be described later and an

explanation will be first given to the commodity storage racks 11. An endless flat band belt 14 stretched around a front pulley 141 and a rear pulley (not shown) and including a support plate 142, which supports an aftermost commodity to prevent the commodity from falling, is laid on a floor surface of the commodity column 13 partitioned by the column partitioning members 12, and a driven gear 143 driven by a bucket unit described later is connected to the front pulley 141. Also, provided in a region forwardly of the column partitioning member 12, which defines a passage width of the commodity column 13, is a gate mechanism 15 for opening and closing of a gate plate 151, the gate mechanism 15 being driven by a bucket unit described later. In addition, the interior in this example is formed as a cold exclusive chamber, and a cooling unit (an evaporator of a refrigerating machine) is mounted in a lower portion of the interior, the cooling unit being connected by means of piping to a compressor, a condenser, or the like mounted in a machine room on the bottom of the body case 1. In addition, there is an arrangement, in which the interior is divided vertically by an insulating partition into a hot chamber and a cold chamber to sell hot commodities and cold commodities, in which case a heating unit (heater) is arranged in the hot chamber.

[0016]

A rectangular coordinate X-Y conveyance mechanism, to

which a bucket unit for reception of a commodity discharged from the commodity column 13 is mounted, is provided in a space between a front end of the commodity storage rack 11 in the interior of the body case 1 and the internal door. The X-Y conveyance mechanism is constructed in a configuration, in which Y conveyance mechanisms are arranged at both left and right ends in the interior of the body case 1, a X conveyance mechanism bridges the Y conveyance mechanisms, and a bucket unit is mounted to the X conveyance mechanism, and the X conveyance mechanism with the bucket unit mounted thereto is put in a state to descend to a home position (standby position), in which the X conveyance mechanism is unseen (does not get in the way) from the through-vision window 21 of the external door 2, in sales standby state. The bucket unit mounts thereon the gate mechanism 15 of the commodity column 13, an electrically-driven drive mechanism as a power source, which drives the driven gear 143, and a drive gear, and in a state, in which the bucket unit is positioned forwardly of the commodity column 13, the drive mechanism and the drive gear, which are mounted on the bucket unit, transmit power to the gate mechanism 15 and the driven gear 143 to discharge a commodity. Accordingly, the gate mechanism 15 and the driven gear 143 constitute a commodity discharge device.

[0017]

With the automatic vending machine thus constructed,

when the ten-keys push button 31 is operated to select a commodity after a coin or coins are thrown in, a sales command is given to the X-Y conveyance mechanism. Based on the sales command, the X-Y conveyance mechanism moves from the home position (standby position) to cause the bucket unit to face a position forwardly of the indicated (selected) commodity column 13 to have access thereto, that is, causes the drive mechanism and the drive gear, which are mounted on the bucket unit, to transmit power to the gate mechanism 15 of the commodity column 13 and the driven gear 143 to open and close the gate plate 151 so as to retreat the same from the commodity passage and to advance the belt 14 by a distance corresponding to one commodity to execute discharge of a commodity, thus receiving (into the bucket unit) a commodity discharged from the commodity column 13. When a commodity is received into the bucket unit, transmission of power by the drive mechanism and the drive gear is released whereby the gate plate 151 is returned to an original position to prevent a next sales commodity from falling. Thereafter, the X-Y conveyance mechanism moves downward in a manner to cause the bucket unit to face a position forwardly of the commodity take-out port 37, thus conveying the commodity received into the bucket unit to the commodity take-out port 37. After the commodity is conveyed to the commodity take-out port 37 from the bucket unit, the X-Y conveyance mechanism again moves downward to return

to the home position to terminate the sales motion.

[0018]

As shown in Figs. 2 and 3, the column partitioning member 12 comprises a front shaft 121 and a rear shaft 122, which are lengthy to extend longitudinally, of which cross sections are in the form of a longitudinal rectangle, and which project from both longitudinal ends thereof. The front shaft 121 and the rear shaft 122 are formed in eccentric positions of the column partitioning member 12 of the rectangular cross section, that is, on a lower portion of the cross sectional, longitudinal rectangle to assume a square column. Hereupon, the rear shaft 122 has a stopper 122a bulged from a tip end of the shaft. Also, a pin 123 in the form of a square column is formed at a rear end of the column partitioning member 12 to align with the rear shaft 122. A square hole 15a being approximate to an external shape of the front shaft 121 of the column partitioning member 12 is formed on the gate mechanism 15 (a frame thereof) arranged in a region forwardly of the column partitioning member 12, and a support groove 113a and a holding groove 113b, which are approximate to external shapes of the rear shaft 122 and the pin 123 of the column partitioning member 12 and opened upward, are formed on the backwall 113 of the commodity shelf 110.

[0019]

The column partitioning member 12 is assembled to the commodity shelf 110 in a final process, in which the belt 14

and the gate mechanism 15 are assembled to the commodity shelf 110, a state in the course of assembling being shown in Fig. 3. That is, the figure shows a state, in which the second column partitioning member 12 from the left is in the course of assembling, and the rear shaft 122 of the column partitioning member 12 is fitted into the support groove 113a formed on the backwall 113 of the commodity shelf 110 in a state, in which the front shaft 121 of the column partitioning member 12 is inserted into the square hole 15a of the gate mechanism 15. In this case, the stopper 122a formed on the rear shaft 122 of the column partitioning member 12 faces the backwall 113 of the commodity shelf 110 to function as a coming-off preventive element. Hereupon, the width of the column partitioning member 12 having a cross section in the form of a longitudinal rectangle is determined to be slightly larger than that of the gate mechanism 15 and set to a passage width L1 (see Fig. 4) of the commodity column 13 in a state, in which the column partitioning member 12 is made upright and assembled. In addition, while a region below the column partitioning member 12 is formed as an empty space, it suffices to mount the same partitioning member as the column partitioning member 12 in the case where the empty space should be closed. Therefore, a square hole 15b is bored in the gate mechanism 15 (a frame thereof) as indicated by a broken line in Fig. 4. A similar, square hole (see Fig. 3) is also bored in the backwall

113 of the commodity shelf 110.

[0020]

Subsequently, when the passage width of the commodity column 13 should be changed, the column partitioning member 12 assembled in an upright position is dismounted in a reverse order to that in the assembling described above and again assembled in a state, in which the column partitioning member 12 is inclined laterally. Fig. 3 shows the state in the course of assembling. That is, the figure shows a state, in which the third column partitioning member 12 from the left is in the course of assembling, and the rear shaft 122 of the column partitioning member 12 is fitted into the support groove 113a formed on the backwall 113 of the commodity shelf 110 in a state, in which the front shaft 121 of the column partitioning member 12 is inserted into the square hole 15a of the gate mechanism 15. At this time, the pin 123 formed at the rear end of the column partitioning member 12 is fitted into the holding groove 113b formed on the backwall 113 of the commodity shelf 110, so that the column partitioning member 12 is maintained in an inclined position. In this manner, in the case where the column partitioning member 12 is inclined, the passage width of the commodity column 13 is set to L2 (see Fig. 4). Hereupon, as shown in Fig. 4, in a state, in which the column partitioning member 12 is inclined, the column partitioning member 12 does not protrude into an adjacent commodity column 13. In order

to attain this, the front shaft 121 and the rear shaft 122 of the column partitioning member 12 are formed in eccentric positions of the column partitioning member 12 having a rectangular cross section, that is, in positions, in which the column partitioning member 12 does not protrude into an adjacent commodity column 13 in a state, in which the column partitioning member 12 is inclined. Accordingly, when the column partitioning member 12 is inclined to change the passage width of the commodity column 13, the passage width of an adjacent commodity column 13 will not be changed.

[0021]

In this manner, with the commodity storage rack of the automatic vending machine, according to Embodiment 1, in which the plurality of commodity storage racks 11 are provided in a vertical direction in the interior of the body case 1, the plurality of commodity columns 13 are formed in a left and right direction by the column partitioning members 12 laid longitudinally on the commodity storage rack 11, and commodities being different in size (width) can be received in the commodity columns 13, the column partitioning members 12 are invariable in mounted positions and can be inclined whereby the column partitioning member 12 is inclined to protrude into the passage width of the commodity column 13 to enable changing the passage width thereof, and at this time, the mounted positions of the column partitioning members 12

are not moved from the original mounted positions, so that it is possible to maintain the passage width of an adjacent commodity column 13 constant at all times. Accordingly, there is produced an effect that the passage width of the commodity column 13 can be changed to a passage width conformed to a commodity size without the provision of an accessory (width attachment) in order to change the passage width of the commodity column 13.

[0022]

Subsequently, a commodity storage rack of an automatic vending machine, according to Embodiment 2 of the invention, will be described with reference to the drawings. Figs. 5 and 6 show the commodity storage racks of an automatic vending machine, according to Embodiment 2 of the invention, Fig. 5 being a perspective view showing the commodity storage racks in an automatic vending machine as viewed from forward, rightward, and obliquely upward and Fig. 6 being a B-B cross sectional view of Fig. 5. In addition, the whole construction of the automatic vending machine is the same as that of Embodiment 1 shown in Fig. 1, elements having the same functions as those in Embodiment 1 are denoted by the same reference numerals as those in the latter, and a duplicate explanation therefor is omitted.

[0023]

The commodity storage rack of an automatic vending

machine, according to Embodiment 2, shown in Figs. 5 and 6, is different from the commodity storage rack of an automatic vending machine, according to Embodiment 1, in the structure of a column partitioning member 16 and a state, in which the column partitioning member is journaled. That is, as shown in the figures, the column partitioning member 16 is determined to be slightly larger in width than a gate mechanism 15 and chamfered at an upper end thereof to be mountain-shaped in cross section. A pair of upper and lower shafts 161, 162 are formed at both longitudinal ends of the column partitioning member 16 while a pair of upper and lower guide holes 151, 152 are formed on the gate mechanism 15 (a frame thereof) to correspond to the pair of upper and lower shafts 161, 162. Hereupon, the upper guide hole 151 is formed as a vertically extending slot and the lower guide hole 152 is formed as an upwardly curved, arcuate hole. In addition, the same guide holes as the guide holes 151, 152 are also formed on a backwall 113 of a commodity shelf 110.

[0024]

The column partitioning member 16 is assembled to the commodity shelf 110 in a process, in which the gate mechanism 15 is assembled to the commodity shelf 110. That is, in a pre-stage, in which the gate mechanism 15 is assembled to the commodity shelf 110, the guide holes 151, 152 on the gate mechanism 15 are fitted onto the shafts 161, 162 on a front

portion of the column partitioning member 16 and the gate mechanism 15 is assembled to the commodity shelf 110 in a state, in which the shafts 161, 162 on a rear portion of the column partitioning member 16 are fitted into the guide holes 151, 152 on the backwall 113 of the commodity shelf 110. At this time, the shaft 162 of the column partitioning member 16 is assembled in a state (this state being shown on the gate mechanism 15 at the left side of in Fig. 6) of being disposed at a lower end on a left end side of the guide hole 152 to be positioned there, and the passage width of the commodity column 13 is determined to be made a predetermined width.

[0025]

Subsequently, an explanation will be given to the work when the passage width of the commodity column 13 should be changed. Figs. 5 and 6 show, for the gate mechanism 15, a state (on the left in the figure) before setting is changed and a state (on the right in the figure) after setting is changed, and while the column partitioning member 16 put in a state before setting is changed is picked and lifted upward, the shafts 161, 162 of the column partitioning member 16 are moved along the guide holes 151, 152 of the gate mechanism 15. When the shaft 162 approaches a curved portion of the guide hole 152 from a left end side thereof, the column partitioning member 16 is gradually inclined in a counter-clockwise direction in the figure with the shaft 161 as a fulcrum, and when the shaft

162 moves to a right end side of the guide hole 152 from a top of the curved portion thereof, the column partitioning member begins descending. When the shaft 162 moves to a lower end position on the right end side of the guide hole 152 to be positioned, the column partitioning member 16 is maintained in an inclined position. Hereupon, as shown in Fig. 6, the column partitioning member 16 does not protrude into an adjacent commodity column 13 in a state, in which the column partitioning member 16 is inclined. In order to attain this, the column partitioning member 16 is inclined with the shaft 161 as a fulcrum and formed at an upper end thereof to be mountain-shaped in cross section. Therefore, the column partitioning member 16 does not move leftward and rightward from an original mounted position and a slant face of the mountain shape of the column partitioning member 16 is made flush with a side of the gate mechanism 15 also in a state, in which the column partitioning member 16 is inclined, so that the column partitioning member 16 does not protrude into an adjacent commodity column 13. Accordingly, when the column partitioning member 16 is inclined to change the passage width of the commodity column 13, the passage width of an adjacent commodity column 13 is not changed.

[0026]

In addition, the chamber formed at an upper end of the column partitioning member 16 is not limited to a mountain shape

in cross section but can be formed to be polygonal-shaped in cross section, or arcuate-shaped without corners in a polygonal shape in cross section, and so the chamber is not limited to the shape in Embodiment 2.

[0027]

With the commodity storage rack of an automatic vending machine, according to Embodiment 2 described above, in which the plurality of commodity storage racks 11 are provided in a vertical direction in the interior of the body case 1, the plurality of commodity columns 13 are formed in a left and right direction by the column partitioning members 16 laid longitudinally on the commodity storage rack 11, and commodities being different in size (width) can be received in the commodity columns 13, the column partitioning members 16 are invariable in mounted positions and can be inclined whereby the column partitioning member 16 is inclined to protrude into the commodity passage of the commodity column 13 to enable changing the passage width thereof, and at this time, the mounted positions of the column partitioning members 16 are not moved from the original mounted positions, so that it is possible to maintain the passage width of an adjacent commodity column 13 constant at all times. Accordingly, there is produced an effect that the passage width of the commodity column 13 can be changed to a passage width conformed to a commodity size without the provision of an accessory (width

attachment) in order to change the passage width of the commodity column 13.

[0028]

In addition, the invention is not limited to an automatic vending machine according to the embodiments shown in the drawings, that is, an automatic vending machine, in which commodities, such as canned beverage, beverage packed in PET bottles, etc., received in interior are visually recognized through through-vision windows of an external door and an internal door, but applicable to an automatic vending machine provided with commodity storage racks, in which a plurality of commodity columns are formed in a left and right direction by column partitioning members laid longitudinally and commodities being different in size (width) can be received in the commodity columns.

What is claimed is:

1. A commodity storage rack of an automatic vending machine, which comprises a plurality of commodity storage racks in a vertical direction in an interior of a body case, and in which a plurality of commodity columns are formed in a left and right direction by column partitioning members laid longitudinally in the commodity storage rack, and commodities being different in size (width) can be received in the commodity columns, the commodity storage rack being characterized in that the column partitioning members are invariable in mounted positions and can be inclined.

2. The commodity storage rack of an automatic vending machine, according to claim 1, wherein the column partitioning members comprise a shaft, which is lengthy to extend longitudinally, of which cross section is in the form of a longitudinal rectangle, and which projects from both longitudinal ends thereof, the shaft being formed in an eccentric position of the rectangular cross section.

3. The commodity storage rack of an automatic vending machine, according to claim 1, wherein the column partitioning members are chamfered at least at one ends thereof and can be inclined with the one ends as a fulcrum.

ABSTRACT OF THE DISCLOSURE

COMMODITY STORAGE RACK OF AUTOMATIC VENDING MACHINE

Provided is a commodity storage rack of an automatic vending machine, by which a passage width in a commodity column can be readily changed according to a commodity size without the use of any width attachment.

A commodity storage rack of an automatic vending machine, which comprises a plurality of commodity storage racks in a vertical direction in an interior of a body case, and in which a plurality of commodity columns are formed in a left and right direction by column partitioning members laid longitudinally in the commodity storage rack and commodities being different in size (width) can be received in the commodity columns, whereby the column partitioning members are caused to incline and the column partitioning members are caused thereby to protrude into commodity passages of the commodity columns to change passage widths thereof.

Fig. 1