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(11) **EP 0 736 280 B1**

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication and mention
of the grant of the patent:
06.03.2002 Bulletin 2002/10

(51) Int Cl.7: **A47F 9/04**

(21) Application number: **96200896.7**

(22) Date of filing: **02.04.1996**

(54) **A rack for displaying articles**

Warenträger zur Präsentation von Gegenständen

Présentoir de marchandises

(84) Designated Contracting States:
BE DE FR GB LU NL

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(30) Priority: **03.04.1995 NL 1000017**

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(43) Date of publication of application:
09.10.1996 Bulletin 1996/41

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Description

[0001] The invention relates to a rack for displaying articles and to an assembly of a checkout unit and a rack for displaying articles, such as tobacco and candy, the checkout unit comprising a cash register and a conveying apparatus for conveying articles to be checked out in the direction of the cash register.

[0002] In known arrangements, such as in DE-A-2734499 there is disclosed a rack comprising a rack for displaying articles, the rack comprising a rear wall, two sidewalls, a display space having an open front side for displaying said articles being provided between the sidewalls and a door with which the open front side can be closed off and released.

[0003] Such assemblies and racks are often used in a supermarket. In a supermarket, a number of these assemblies are typically arranged in a row, somewhat spaced apart, adjacent the exit of the supermarket. An interspace between two assemblies forms an aisle via which a customer can move to the exit after having checked out at the checkout unit. The rack is arranged at the conveying apparatus. Consequently, when a customer is unloading his trolley and places the articles from the trolley on to the conveying apparatus, the customer has a direct view of the articles displayed in the rack. This has as an advantage that the customer may as yet decide to purchase some of these articles. Because the rack is still positioned in front of the cash register, relative to the conveying direction of the conveying apparatus, the customer can simply place the articles from the rack on to the conveying apparatus to proceed to a purchase.

[0004] A drawback of the above-described assemblies is that they take up relatively much space, so that it is only possible to dispose a relatively small number of assemblies in a row at the exit of a supermarket. An assembly takes up much space in a direction transverse to the conveying direction of the conveying apparatus, because for displaying the articles in the rack a relatively deep rack is required. In this connection, one may for instance think of a rack of a depth of 32 cm.

[0005] According to the present invention the width of the top portion of the sidewalls is greater than the width of a bottom portion of the sidewalls, so that a part of the display space overhangs and the rack further comprises a closing shelf movable in a non-vertical plane between a first and a second position, the closing shelf in the first position being in the non-overhanging portion of the display space, and the closing shelf in the second position extending towards the front side of the part of the display space that overhangs, so that the closing shelf meets the bottom of the door when the door closes off the open front side of the display space.

[0006] In an assembly of a checkout unit and a rack a top portion of the sidewalls between which the display space is located and the display space are located above the conveying apparatus, the width of the assem-

bly can decrease by a measure corresponding to the distance through which the display space extends above the checkout unit. This has again as a consequence that an assembly takes up less space, so that, if so desired, a larger number of assemblies can be arranged in a row adjacent the exit of a supermarket.

[0007] Further, the problem that would arise when the door is closed without further measure being taken is solved. In this case, an opening in a vertical plane would be present between the bottom side of the door and the rest of the rack. In this manner, it remains possible to take articles from the rack for instance after closing time of the shop, if the rack is closed off. On the other hand, this opening is desired when the door is opened and the checkout unit is operational. After all, the rack then does not take up any space of the conveying apparatus, so that this apparatus can be fully utilised for conveying the articles in the direction of the checkout unit. Accordingly, the proper closing of the rack and the full utilisation of the capacity of the conveying apparatus is made possible by the fact that the rack further comprises the closing shelf, movable in a non-vertical plane between a first and a second position, the closing shelf in the first position being slid at least partly into the rack so that the closing shelf is located next to the conveying apparatus of the checkout unit, allowing it to be fully utilised, and the closing shelf in the second position extending from the display space to near the open front side, so that the closing shelf at least almost touches the bottom side of the door when the door closes the open front side. From this last, it follows that no opening is present between the bottom side of the door and the rest of the rack.

[0008] Preferred features of the invention are set out in the sub-claims.

[0009] Embodiments of the invention will hereinafter be described with reference to the accompanying drawings, wherein:

Fig. 1 is a diagrammatic top plan view of a shop space wherein a number of known assemblies are provided, each assembly comprising of a checkout unit and a display rack;

Fig. 2 is a diagrammatic top plan view of a shop space wherein a number of assemblies incorporating the racks according to the invention are provided, each assembly comprising a checkout unit and a display rack according to the invention;

Fig. 3 is a side elevation of some assemblies in the direction of the arrow P according to Fig. 2;

Fig. 4 is a front view of an opened display rack in the direction of arrow A according to Fig. 2;

Fig. 5 shows a cross section of the opened display rack according to Fig. 4; 4;

Fig. 6 is a front view of a closed display rack in the direction of arrow A according to Fig. 2;

Fig. 7 shows a cross section of the closed display rack according to Fig. 6;

Fig. 8 shows a cross section of a part of the display

rack according to Figs. 4 and 6;

Fig. 9 shows a cross section of an alternative embodiment of display rack according to the invention; and

Fig. 10 is a diagrammatic top plan view wherein a number of assemblies are included, each assembly comprising a checkout unit and a rack according to Fig. 9.

[0010] Fig. 1 is a top plan view of a number of checkout units arranged in a row and racks for displaying articles. Such an arrangement is known per se and is typically used in self-service shops such as, for instance, supermarkets. Each checkout unit 1 comprises a conveying apparatus 2 on which articles to be checked out can be placed by a customer. The conveying apparatus may for instance consist of a conveyor belt known per se. From for instance a trolley 4 positioned in an aisle 6 present between two checkout units, the articles in question are placed on the conveyor belt apparatus 2. The conveyor belt apparatus 2 conveys the articles in question in the direction of a cash register 8. The checkout unit further comprises a reading unit 10 by means of which the bar codes present on the articles to be checked out can be read. A bar code read can then be directly related to the price of the product by a computer system, not shown. This price can be directly supplied to the cash register 8. There is further provided a chair 12 on which a member of the personnel can sit for checking out the articles. The checkout unit 1 further comprises a second conveying apparatus for conveying articles to a collecting place 16a or to a collecting place 16b. The collecting places 16a and 16b are separated by a partition 18 of which a part 20 is designed so as to be movable from a first position I into a second position II and vice versa. If the movable part 20 of the partition 18 is in the position I, articles will be carried by the second conveying apparatus 14 to the collecting place 16a. If the movable part 20 of the partition 18 is in the position II, articles will be carried by the second conveying apparatus 14 to the collecting place 16b.

[0011] Further, adjacent the conveying apparatus 2 of each checkout unit 1, a display rack 22 is disposed for displaying articles such as, for instance, tobacco and candy. The display rack 22 comprises sidewalls 24 and 26 and a rear wall 28. The rack further comprises an open front side 30 providing access to a display space 32 located between the sidewalls 24 and 26. The display space 32 may for instance comprise a number of superimposed product supports on which the articles to be displayed can be placed. The display space 32 is located at a height which is higher than the checkout unit 1, so that a customer located in the aisle 6 has free access to the articles displayed in the display space and can also seize them and place them on the conveying apparatus 2 in an easy manner.

[0012] As appears from Fig. 1, the minimum width of the aisle is determined by the distance b between the

rear wall 28 of a rack 22 and a sidewall 34 of an adjacent checkout unit 1. If the display racks 22 were not present, then the distance D between the checkout units could be reduced by a distance Δ . In that case, the minimum width of the aisle between the checkout units is determined by the checkout units themselves. It is now desired to reduce the distance D between the checkout units without a reduction of the width b of the aisles, while, moreover, display racks 22 are nevertheless present. This has as an advantage that more checkout units and display racks can be positioned in the same shop space.

[0013] Fig. 2 is a top plan view of a number of juxtaposed assemblies, each assembly consisting of a checkout unit and an associated display rack 22'. In Fig. 2, parts corresponding with those in Fig. 1 are provided with the same reference numerals. Accordingly, a top portion of the rack 22' is located above the checkout unit 1. In this case, the relevant top portion of the rack 22' extends above the conveying apparatus 2 of the checkout unit 1. In other words, the top portions 36, 38 of the sidewalls 24, 26 between which the display space 32 is located and the display space 32 itself are located partly above the checkout unit 1. The display space 32 as it were overhangs the checkout unit 1 through a distance Δ . This involves the advantage that the distance between two neighbouring checkout units is then only $D - \Delta$. The rack, therefore, provides a solution to the problem that it extends above the conveying apparatus 2. This would mean that a portion of the conveying apparatus 2 cannot be utilised for conveying articles in the direction of the cash register 8. However, the rack according to the invention provides a solution to the problem as well, as will be explained hereinafter.

[0014] Fig. 4 is a front view of the rack 22' in the direction of the arrow A as shown in Fig. 2. Fig. 5 shows a cross section of the rack 22' according to Fig. 4. The rack 22' comprises the two sidewalls 24, 26 and the rear wall 28. Located in the display space 32 are a number of inclined product supports 36 for displaying the articles. The rack 22' further comprises a rolling door 40 having a roll-up shaft 42, shown in a dotted line and located at the top side of the rack. In Fig. 4, the rolling door 40 is in its rolled-up position. This renders the display space 32 accessible for viewing and taking out the articles. The rolling door comprises a bottom rail 44 whose ends are received in the sidewalls 24 and 26 so as to be guidable in vertical direction. The rolling door 40 can be unrolled by moving the bottom rail 44 downwards to an end position as shown in Figs. 6 and 7.

[0015] The rack 22 further comprises a closing shelf 46, movable in a non-vertical plane, in this case a horizontal plane, between a first I and a second II position. If the closing shelf is in the first position I (see also Figs. 4 and 5), it is slid at least partly into the rack 22'. If the closing shelf 46 is in the second position II (see also Figs. 6 and 7), it extends to near the bottom rail 44 of the door 40 when it is entirely unrolled. As is shown in

Figs. 6 and 7, the door 40 and the closing shelf 46 thus close off the display space 32 entirely from the outside world. This involves the advantage that when the door 40 is unrolled, it is not possible, owing to the closing shelf 46, to remove articles from the display space 32 via a horizontal opening between the bottom rail 44 and the rest of the rack 22'. After all, the slidable closing shelf 46 closes the horizontal opening 48 located between the bottom rail 44 and the rest of the rack 22' entirely.

[0016] If the rolling door 40 is open and the closing shelf 46 is in the first position, the complete width of the conveying apparatus 2 can advantageously be utilized. After all, the area 49, hatched in Fig. 5, can be used for the conveyance of articles located on the conveying apparatus 2.

[0017] The rack comprises a horizontally oriented cross profile 50 which extends between the sidewalls 24 and 26 and is fixedly connected thereto. The closing shelf 46 comprises a U-shaped profile having a first and second wall part 52, 54, each being connected to a connecting part 56 at a top side. Fig. 8 shows a section of the closing shelf 46 according to the line VII of Fig. 6. The first wall part 52 is located on the outside of the rack and has its outside provided with a locking mechanism 58 which, in use, can cooperate in a manner known per se with the bottom rail 44 of the rolling door 40. To this end, the locking mechanism comprises for instance an opening 60 into which a key can be inserted for connecting the locking mechanism 58 to the bottom rail 44 in a detachable manner.

[0018] Between the first and the second wall part 52, 54, the closing shelf comprises two pins 62, 64, separated from each other in horizontal direction and extending in the direction of movement of the closing shelf. The cross profile 50 is provided with two openings 66, 68. The pins 62, 64, slidable in the longitudinal direction of the pins, are received in the openings 66, 68 respectively. Each pin consists of a hollow tube 70 accommodating a threaded shaft 72. The first and second wall parts 52, 54 are each provided with an opening 74 through which the shaft 72 extends. The locking mechanism 58, too, is provided with an opening 76 through which the shaft 72 extends. The ends of the shaft 72 each comprise a nut 78 by means of which the locking mechanism 58 is connected to the closing shelf. To this end, the tube 70 has a diameter greater than the openings 74. Because each tube 70 can be moved back and forth through the openings 66 and 68 respectively, the entire closing shelf is accommodated in the rack so as to be movable in horizontal direction.

[0019] The invention is by no means limited to the above-described exemplary embodiment and other embodiments are envisaged. For instance, the assembly of checkout unit and rack may comprise a second rack 80, see also Fig. 9. The second rack, too, comprises a rear wall 82 and two sidewalls 84. The rack further comprises an open front side 86 which, in this case, extends from the top side to near the bottom side of the rack 80.

Within the rack there is a display space 88, also extending from the top side to the bottom side of the rack 80. Included in the display space 88 are again a number of superimposed product supports 90, extending in horizontal direction between the sidewalls of the rack. Moreover, the rack comprises a rolling door 92 by means of which the open side 86 can be closed off completely, as is shown in Fig. 9. The rear wall 82 of the second rack 80 faces the rear wall 28 of the first rack 32. In this example, the two racks are fixedly interconnected and constitute as if it were one rack 94. If the rack 94 is used in combination with the checkout unit 1 and if the depth of the second rack 80 is δ , then the distance between successive assemblies of a checkout unit and a rack will be $D - \Delta + \delta$. A top plan view of such a shop configuration is shown in Fig. 10.

Claims

1. A rack (22') for displaying articles, the rack comprising a rear wall (28), two sidewalls (24,26), a display space (32) having an open front side (30) for displaying said articles being provided between the sidewalls, at a top portion thereof, and a door (40) with which the open front side (30) can be closed off and released, **characterised in that** the width of the top portion (36,38) of the sidewalls is greater than the width of a bottom portion of the sidewalls, so that a part of the display space (32) overhangs and **in that** the rack (22') further comprises a closing shelf (46) movable in a non-vertical plane between a first and a second position, the closing shelf (46) in the first position being in the non-overhanging portion of the display space, and the closing shelf (46) in the second position extending towards the front side of the part of the display space that overhangs, so that the closing shelf (46) meets the bottom of the door (40) when the door closes off the open front side (30) of the display space (32).
2. A rack according to claim 1, **characterised in that** the closing shelf (46) is movable in a horizontal plane between the first and the second positions.
3. A rack according to claim 2, **characterised in that** the door (40) is constituted by a rolling door having a roll-up shaft (42) located at the top side of the rack, so that the rolling door (40) can be unrolled from the top downwards for closing off the open front side (30).
4. A rack according to claim 3, **characterised in that** the closing shelf (46) incorporates a locking mechanism (58) whereby the closing shelf in the second position can be connected to the closed door (40).
5. A rack according to claim 4, **characterised in that**

the closing shelf (46) comprises a U-shaped profile having first (52) and second wall parts (54) which have their top sides connected by a connecting part (56).

6. A rack according to claim 5, **characterised in that** the first wall part (52) is located on the outside of the rack and carries said locking mechanism (58) on its outside.
7. A rack according to claim 6, **characterised in that** between the first and the second wall parts (52,54) the closing shelf (46) comprises pins (62,64) spaced from each other in the horizontal direction and extending in the direction of movement of the closing shelf (46), the rack further comprising a cross profile (50) which extends between the two sidewalls (24,26) and is connected thereto, and the cross profile (50) having two openings (66,68) in which the pins (62,64) are slidably received.
8. A rack according to claim 7, **characterised in that** the first and the second wall parts (52,54) are each provided with two openings (74), each pin (62,64) extending through an opening (74) of the first wall part (52) and through an opening (74) of the second wall part (54) and the locking device (58) being connected to the closing shelf (46) by means of the pins (62,64).
9. A rack according to any one of claims 1 to 8 **characterised in that** the rack comprises a second open front side (86) and a second door (92), whilst between the sidewalls (84) a second display space (88) is present for displaying said articles, and the second open front side (86) can be closed off and released by the second door (92) and the two display spaces (32,88) are located on opposite sides of the rear wall (28).
10. An assembly of a checkout unit (1) and a rack (22') for displaying articles as claimed in any one of claims 1 to 9, the checkout unit comprising a cash register (8) and a conveying apparatus (2) for conveying articles to be checked out in the direction of the cash register (8) **characterised in that** at said overhanging part of the sidewalls (24,26) and the display space (32) are located above the conveying apparatus (2).
11. An assembly according to claim 10, **characterised in that** the closing shelf (46) in the second position extends above the conveying apparatus (2) and in the first position is located adjacent the conveying apparatus (2).
12. An assembly according to claims 10 or 11 **characterised in that** the checkout unit (1) and the rack

(22') are detachably interconnected.

Patentansprüche

1. Gestell (22') zur Auslage von Gegenständen, wobei das Gestell folgendes umfasst: eine Rückwand (28), zwei Seitenwände (24, 26), einen Auslagereraum (32) mit einer offenen Vorderseite (30) zur Auslage der genannten Gegenstände zwischen den Seitenwänden in einem oberen Abschnitt davon, und eine Tür (40), mit der die offene Vorderseite (30) verschlossen und geöffnet werden kann, **dadurch gekennzeichnet, dass** die Breite des oberen Abschnitts (36, 38) der Seitenwände größer ist als die Breite eines unteren Abschnitts der Seitenwände, so dass ein Teil des Auslagereraums (32) übersteht, und dadurch, dass das Gestell (22') ferner eine Verschlussplatte (46) umfasst, die in einer nicht vertikalen Ebene zwischen einer ersten und einer zweiten Position beweglich ist, wobei sich die Verschlussplatte (46) in der ersten Position im nicht überstehenden Abschnitt des Auslagereraums befindet und die Verschlussplatte (46) sich in der zweiten Position in Richtung auf die Vorderseite des Teils des Auslagereraums erstreckt, der übersteht, so dass die Verschlussplatte (46) auf das untere Ende der Tür (40) trifft, wenn die Tür die offene Vorderseite (30) des Auslagereraums (32) verschließt.
2. Gestell nach Anspruch 1, **dadurch gekennzeichnet, dass** die Verschlussplatte (46) in einer horizontalen Ebene zwischen der ersten und der zweiten Position beweglich ist.
3. Gestell nach Anspruch 2, **dadurch gekennzeichnet, dass** die Tür (40) aus einer Rolltür mit einer Aufrollwelle (42) besteht, die sich an der Oberseite des Gestells befindet, so dass die Rolltür (40) von der Oberseite nach unten abgerollt werden kann, um die offene Vorderseite (30) zu verschließen.
4. Gestell nach Anspruch 3, **dadurch gekennzeichnet, dass** die Verschlussplatte (46) einen Verriegelungsmechanismus (58) beinhaltet, über den die Verschlussplatte in der zweiten Position mit der verschlossenen Tür (40) verbunden werden kann.
5. Gestell nach Anspruch 4, **dadurch gekennzeichnet, dass** die Verschlussplatte (46) ein U-förmiges Profil umfasst, mit einem ersten (52) und einem zweiten Wandteil (54), deren Oberseite mit einem Verbindungsteil (56) verbunden ist.
6. Gestell nach Anspruch 5, **dadurch gekennzeichnet, dass** sich das erste Wandteil (52) auf der Außenseite des Gestells befindet und den genannten Verriegelungsmechanismus (58) auf seiner Außen-

seite trägt.

7. Gestell nach Anspruch 6, **dadurch gekennzeichnet, dass** die Verschlussplatte (46) zwischen dem ersten und dem zweiten Wandteil (52, 54) Stifte (62, 64) aufweist, die in horizontaler Richtung voneinander beabstandet sind und in die Bewegungsrichtung der Verschlussplatte (46) verlaufen, wobei das Gestell ferner ein Querprofil (50) umfasst, das sich zwischen den beiden Seitenwänden (24, 26) erstreckt und mit ihnen verbunden ist, wobei das Querprofil (50) zwei Öffnungen (66, 68) hat, in denen die Stifte (62, 64) gleitfähig aufgenommen werden. 5
8. Gestell nach Anspruch 7, **dadurch gekennzeichnet, dass** das erste und das zweite Wandteil (52, 54) jeweils mit zwei Öffnungen (74) versehen sind, wobei jeder Stift (62, 64) durch eine Öffnung (74) des ersten Wandteils (52) und durch eine Öffnung (74) des zweiten Wandteils (54) verläuft und die Verriegelungsvorrichtung (58) über die Stifte (62, 64) mit der Verschlussplatte (46) verbunden ist. 10
9. Gestell nach einem der Ansprüche 1 bis 8, **dadurch gekennzeichnet, dass** das Gestell eine zweite offene Vorderseite (86) und eine zweite Tür (92) umfasst, während zwischen den Seitenwänden (84) ein zweiter Auslageraum (88) für die Auslage der genannten Gegenstände vorhanden ist, wobei die zweite offene Vorderseite (86) mit der zweiten Tür (92) verschlossen und geöffnet werden kann und die beiden Auslageräume (32, 88) auf entgegengesetzten Seiten der Rückwand (28) angeordnet sind. 15
10. Baugruppe aus einer Kasseneinheit (1) und einem Gestell (22') zur Auslage von Gegenständen nach einem der Ansprüche 1 bis 9, wobei die Kasseneinheit eine Registrierkasse (8) und eine Beförderungseinrichtung (2) zur Beförderung von zu registrierenden Gegenständen in Richtung der Registrierkasse (8) umfasst, **dadurch gekennzeichnet, dass** sich das genannte überstehende Teil der Seitenwände (24, 26) und der Auslageraum (32) oberhalb der Beförderungseinrichtung (2) befinden. 20
11. Baugruppe nach Anspruch 10, **dadurch gekennzeichnet, dass** sich die Verschlussplatte (46) in der zweiten Position oberhalb der Beförderungseinrichtung (2) erstreckt und in der ersten Position neben der Beförderungseinrichtung (2) befindet. 25
12. Baugruppe nach Anspruch 10 oder 11, **dadurch gekennzeichnet, dass** die Kasseneinheit (1) und das Gestell (22') trennbar miteinander verbunden sind. 30

Revendications

1. Une étagère (22') pour présenter des articles, l'étagère comprenant une paroi arrière (28), deux parois latérales (24,26), un espace de présentation (32) ayant un côté avant ouvert (30) pour présenter lesdits articles étant prévu entre les parois latérales, en une partie supérieure de celles-ci, et une porte (40) avec laquelle il est possible de renfermer et de dégager le côté avant ouvert (30), **caractérisée en ce que** la largeur de la partie supérieure (36,38) des parois latérales est plus grande que la largeur d'une partie inférieure des parois latérales, de sorte qu'une partie de l'espace de présentation (32) est en surplomb et **en ce que** l'étagère (22') comporte de plus un rayon de fermeture (46) qui peut être déplacé dans un plan non vertical entre une première et une deuxième positions, le rayon de fermeture (46) en sa première position étant dans la partie non en surplomb de l'espace de présentation, et le rayon de fermeture (46) dans sa deuxième position s'étendant vers le côté avant de la partie de l'espace de présentation qui est en surplomb, de sorte que le rayon de fermeture (46) rejoint le bas de la porte (40) lorsque la porte referme le côté avant ouvert (30) de l'espace de présentation (32). 5
2. Une étagère selon la revendication 1, **caractérisée en ce que** le rayon de fermeture (46) peut être déplacé dans un plan horizontal entre la première et la deuxième positions. 10
3. Une étagère selon la revendication 2, **caractérisée en ce que** la porte (40) est constituée par une porte en rideau ayant un axe d'enroulement (42) placé à l'extrémité supérieure de l'étagère, de sorte que la porte en rideau (40) peut être déroulée depuis le haut vers le bas pour refermer le côté avant ouvert (30). 15
4. Une étagère selon la revendication 3, **caractérisée en ce que** le rayon de fermeture (46) incorpore un mécanisme de verrouillage (58) de sorte que le rayon de fermeture en la deuxième position peut être connecté à la porte fermée (40). 20
5. Une étagère selon la revendication 4, **caractérisée en ce que** le rayon de fermeture (46) comprend un profilé en forme de U ayant une première (52) et une deuxième (54) parties de paroi dont les côtés supérieurs sont connectés par un élément de connexion (56). 25
6. Une étagère selon la revendication 5, **caractérisée en ce que** la première partie de paroi (52) se trouve sur l'extérieur de l'étagère et porte sur son extérieur ledit mécanisme de verrouillage (58). 30

7. Une étagère selon la revendication 6, **caractérisée en ce que**, entre les première et deuxième parties de paroi (52,54), le rayon de fermeture (46) comprend des broches (62,64) écartées l'une de l'autre dans la direction horizontale et qui s'étendent dans la direction de mouvement du rayon de fermeture (46), l'étagère comportant de plus un profilé transversal (50) qui s'étend entre les deux parois latérales (24,26) et qui est connecté à celles-ci, et le profilé transversal (50) ayant deux ouvertures (66,68) dans lesquelles les broches (62,64) sont reçues en coulissant. 5
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8. Une étagère selon la revendication 7, **caractérisée en ce que** les première et deuxième parties de paroi (52,54) sont chacune pourvues de deux ouvertures (74), chaque broche (62,64) s'étendant à travers une ouverture (74) de la première partie de paroi (52) et à travers une ouverture (74) de la deuxième partie de paroi (54) et le dispositif de verrouillage (58) étant connecté au rayon de fermeture (46) au moyen des broches (62,64). 15
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9. Une étagère selon l'une quelconque des revendications 1 à 8, **caractérisée en ce que** l'étagère comprend un deuxième côté avant ouvert (86) et une deuxième porte (92) tandis que, entre les parois latérales (84), un deuxième espace de présentation (88) est présent pour présenter lesdits articles, et le deuxième côté avant ouvert (86) peut être refermé et libéré par la deuxième porte (92) et les deux espaces de présentation (32,88) se trouvent sur des côtés opposés de la paroi arrière (28). 25
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10. Un ensemble comportant une caisse (1) et une étagère (22') pour présenter des articles selon l'une quelconque des revendications 1 à 9, la caisse comprenant une caisse enregistreuse (8) et un dispositif convoyeur (2) pour convoyer des articles à enregistrer vers la caisse enregistreuse (8) **caractérisé en ce que** ladite partie en surplomb des parois latérales (24,26) et l'espace de présentation (32) se trouvent au-dessus du dispositif convoyeur (2). 35
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11. Un ensemble selon la revendication 10, **caractérisé en ce que** le rayon de fermeture (46) en sa deuxième position s'étend au-dessus du dispositif convoyeur (2) et en sa première position se trouve adjacent au dispositif convoyeur (2). 50
12. Un ensemble selon les revendications 10 ou 11, **caractérisé en ce que** la caisse (1) et l'étagère (22') sont interconnectées de façon détachable. 55

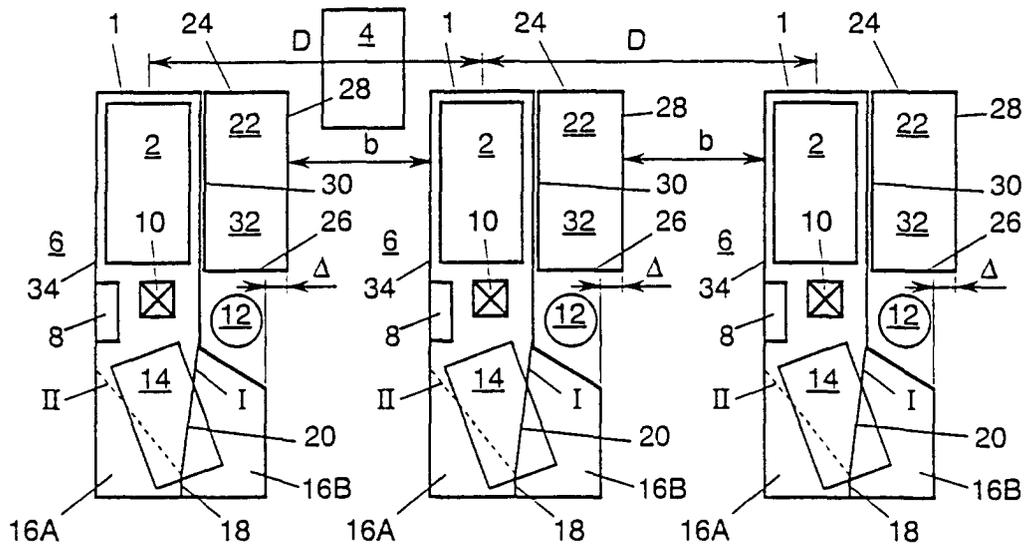


FIG. 1

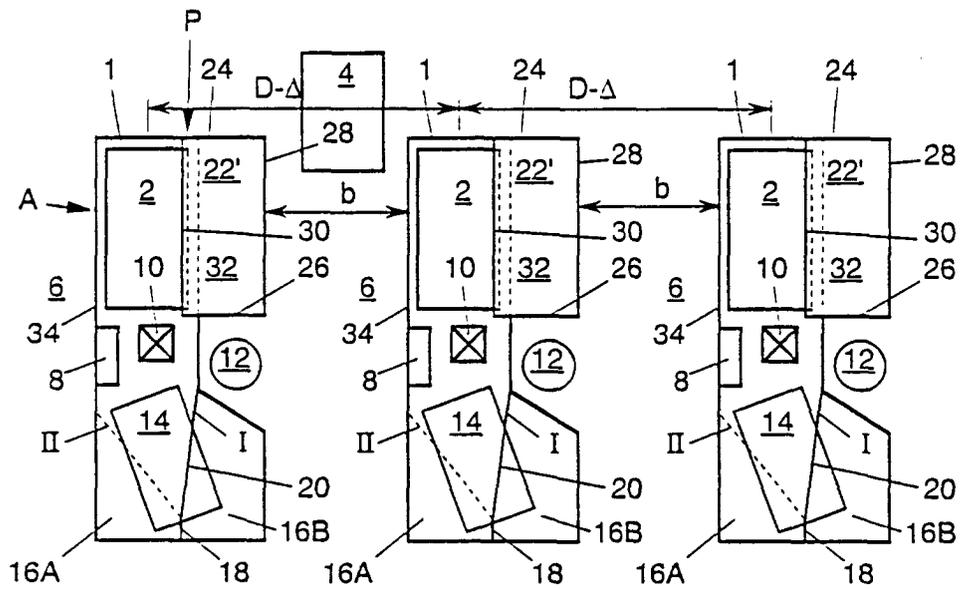


FIG. 2

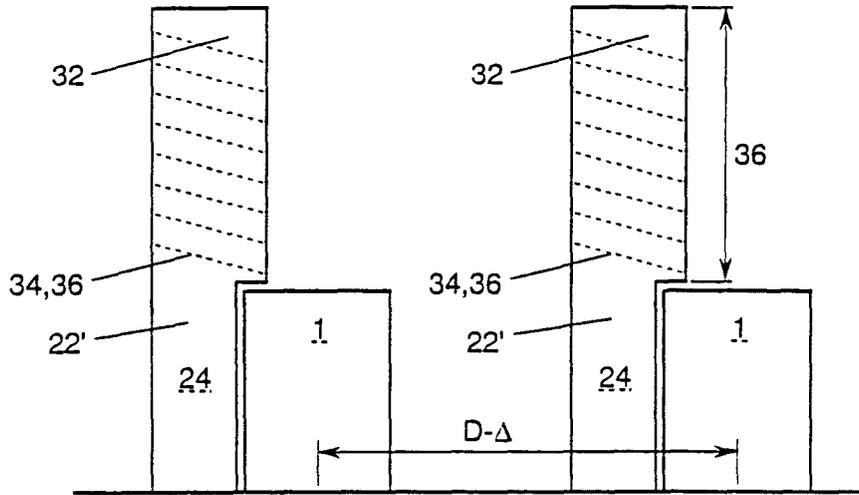


FIG. 3

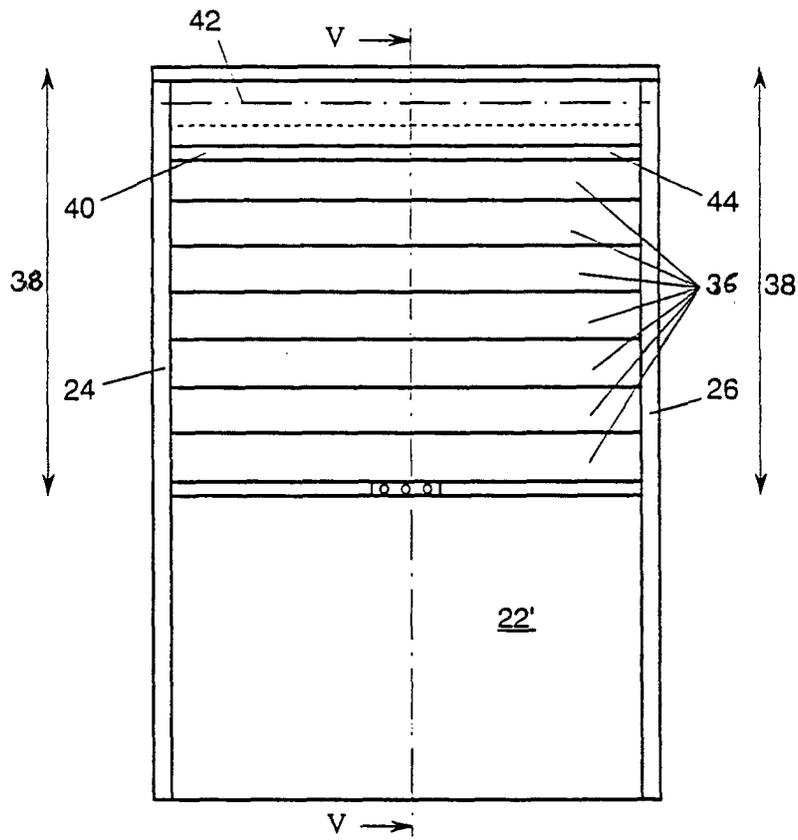


FIG. 4

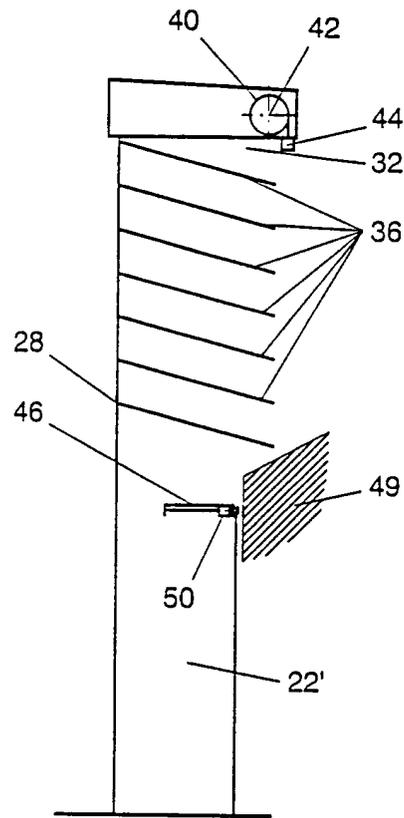


FIG. 5

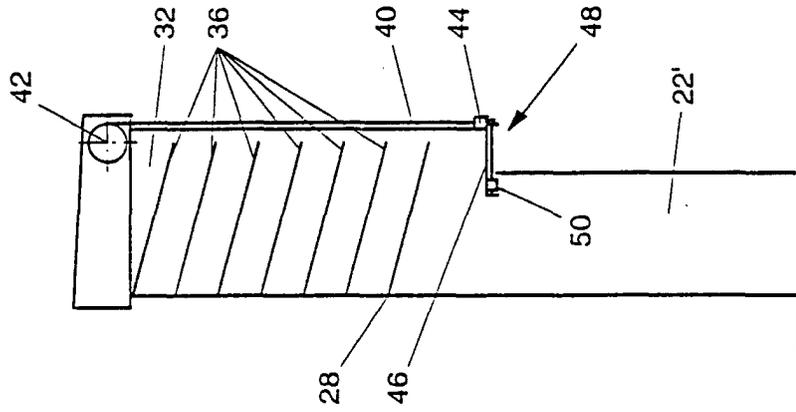


FIG. 7

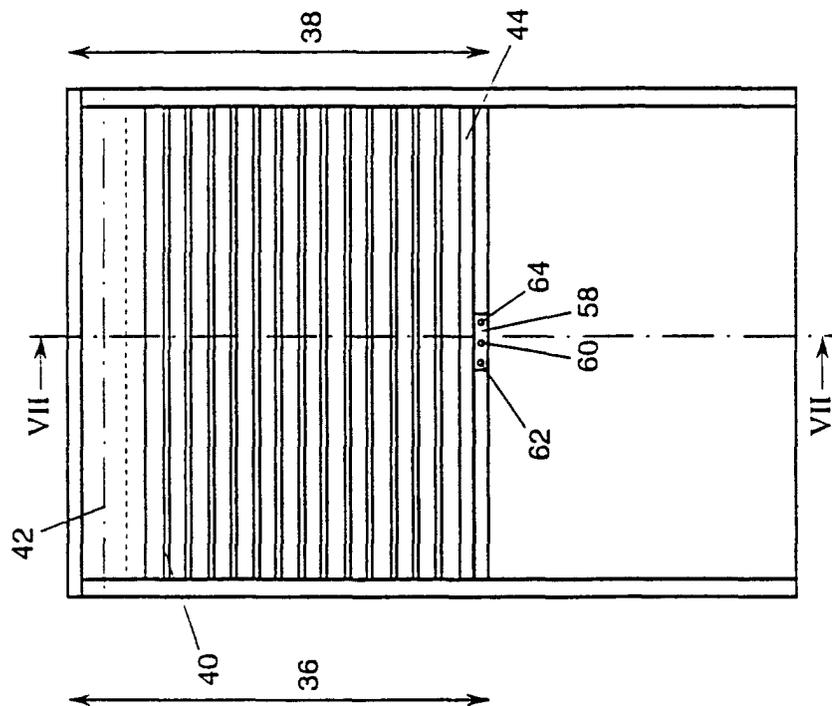


FIG. 6

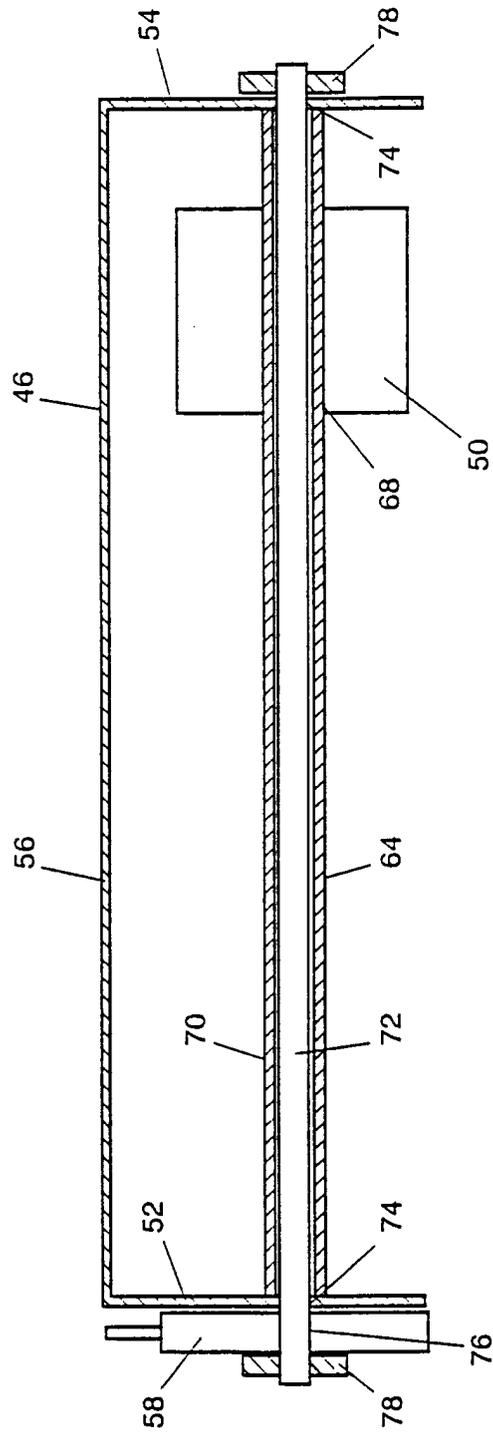


FIG. 8

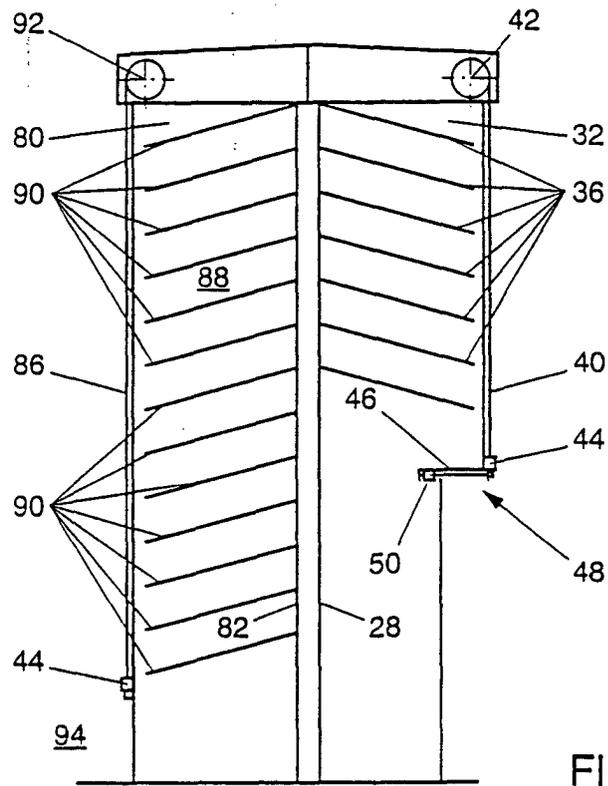


FIG. 9

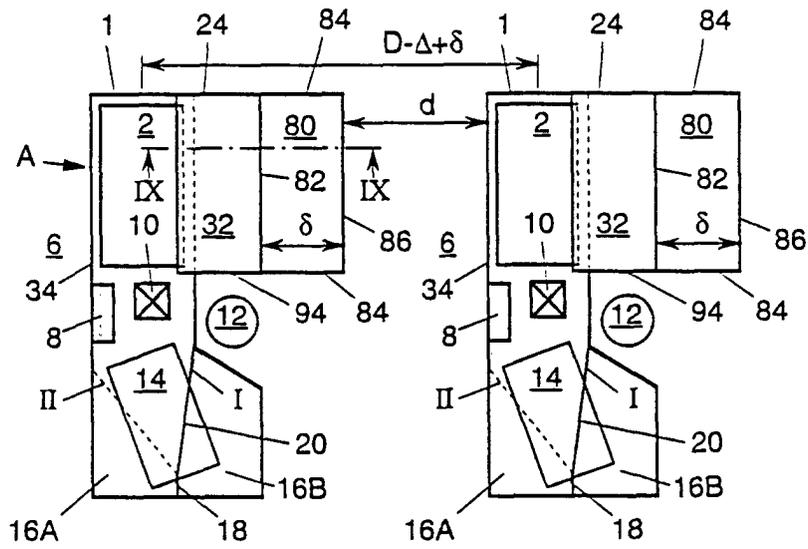


FIG. 10