



(11) **EP 1 003 136 A1**

(12) **EUROPEAN PATENT APPLICATION**

(43) Date of publication:
24.05.2000 Bulletin 2000/21

(51) Int Cl.7: **G07F 11/00, G07F 13/00**

(21) Application number: **99500162.5**

(22) Date of filing: **16.09.1999**

(84) Designated Contracting States:
**AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU
MC NL PT SE**
Designated Extension States:
AL LT LV MK RO SI

(71) Applicant: **Gesvending S.L.**
46980 Paterna (ES)

(72) Inventor: **Herrera Hernandez, Inmaculada**
46980 Paterna (ES)

(30) Priority: **18.11.1998 ES 9802904**

(74) Representative: **Marques Alos, Fernando**
Tuset, 34
08006 Barcelona (ES)

(54) **"Improved vending machine for solid products"**

(57) An improved vending machine for solid products, of the kind which is used through the selection of a product by a selector of choices (3) and payment by means of a cash input slot (4), characterised because a lower machine body (2) can be distinguished, vending solid products, on top of which there can be installed, on a supporting surface (5), an upper machine (1) for hot drinks, showing in the front of the lower part the typical elements of an vending machine (2) of solid products, such as a display (11) of the available products and a drawer (12), with a means of access (13) to these receptacles, having available at the same time in the posterior part of the vending machine for solid products (2), the housing and compartments (9) necessary for the receptacles (7) of both supply and collection of liquids, and receptacles for the collection of the more solid waste (8), while the upper surface area (5) has the openings (10) of connection between these receptacles (7 and 8) and the hot drinks machine (1) above, and also has the function of a support tray, without the need for different parts.

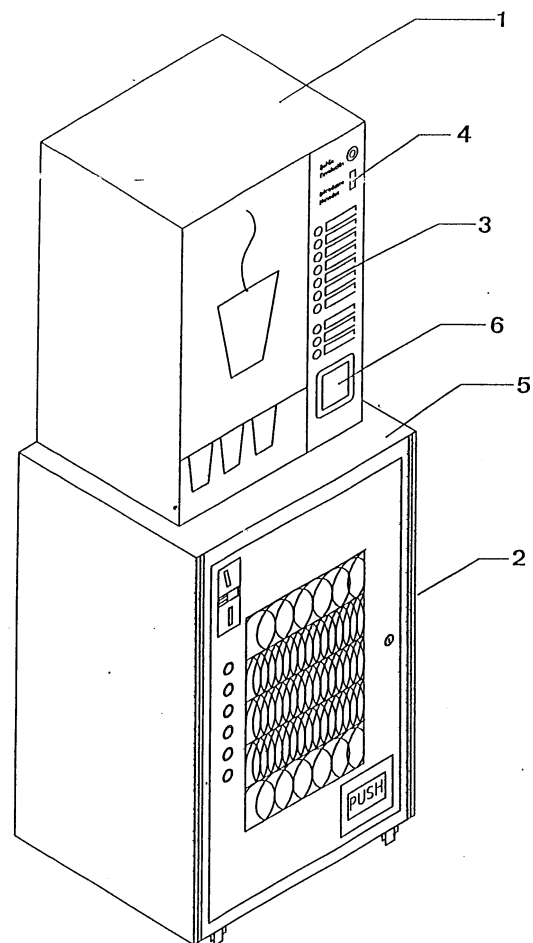


FIGURA 1

Description

[0001] The present invention, as its name indicates, refers to a new improved vending machines for solid products, formed by a vending unit for solid products such as snacks and objects of a similar nature, which also provides space for the resting of the appropriate receptacles, containers of food, beakers of water, deposits for solid and liquid waste, and a vending machine for coffee and hot drinks which can be located in the upper part or on top of the vending machine of solid products the subject of the present invention.

[0002] Up till now, the hot drinks machines have been used in which the upper body constitutes the machine itself, with its selection panel, cash input slot, drinks outlet, etc., while the lower body is merely a stand, as a form of support to the drinks machine, for the purpose of fitting it to the desired height.

[0003] On the other hand, this stand annexed to the machine houses the containers for the supply of liquids and receptacles for the removal of waste, both liquid and solid, the two units being connected through the corresponding pipes or connection conduits.

[0004] Thus two independent bodies are needed for the operation and efficiency of one of them, the drinks machine, wasting more than 50% of the volume occupied by the whole machine assembly.

[0005] At the same time, between the upper body or vending machine and the lower body or stand, it is commonplace to find a piece projecting from the profile of the machine as a sort of tray, for the convenience of the user, on which the drink can be placed while being consumed or while waiting.

[0006] This tray, although it is a convenience for the user, involves an inconvenience for the manufacturer or operator of this machine, given that it means another part to manufacture, transport and assemble, which increases the costs and the time of manufacture, service and assembly.

[0007] It also happens that the machines for solid material, such as snacks, confectionery, etc., are generally large and voluminous, as profitability of this class of product so requires, so that for small quantities these machines are not installed, leaving small numbers of consumers without service.

[0008] With the improved vending machine for solid products, the subject of the present invention, the intention is to palliate or avoid all these inconveniences. This is based on the utilisation of one machine, divided into two principal bodies, the upper one where there is a vending machine for hot drinks and the other, lower body, where there is a vending machine for other solid products such as snacks, confectionery, etc.

[0009] In this way, there is available above a hot drinks service (coffee, infusions, chocolate, etc.), with the corresponding accessories and mechanisms, such as a product selector panel, cash input slot, outlet for delivery of drinks, etc. At the same time, the receptacles

for supply and collection of liquids and solids, given that these are essential to the operation of vending machines for coffee and hot drinks, are lodged in the posterior part of the snacks machine, contemplated in this memorandum as the lower body.

[0010] Therefore, this lower body serves, on the one hand, to house these receptacles, and on the other, serves as a support or stand for the hot drinks vending machine, and as a principle function it is destined to house a vending machines for solid products, placing the receptacles referred to in the posterior part where they are operational with respect to the upper machine, while hidden from the view of the user and separated physically from the area of display and sale of the solid products.

[0011] With this arrangement of vending machines and volumes, the maximum advantage can be taken of space while at the same time obtaining a return from a space which is necessary but non-productive. Indirectly, it means that where are not large numbers of consumers of these solid products, the service can be made available inasmuch as the vending machine is not so grand and voluminous as if it were independent. Thus, in the same place, a double service is made available, of hot drinks and solid products together.

[0012] The advantage is maximum, taking into account that the same selector and information panel of choices can be used for both vending machines, eliminating elements accepting cash and notes for the consumption of the services, with the consequent saving of materials, time and maintenance.

[0013] At the same time, the part which projects from the machine to form a tray can also be eliminated, since by configuring the upper surface of the lower unit somewhat larger than the base of the upper machine, this excess surface can be adapted to the purpose of supporting small objects, carrying out the same functions as a tray, in this way eliminating an extra part, with the corresponding saving in materials, time and costs in general.

[0014] Hereunder, to facilitate a better comprehension of this descriptive memorandum and forming an integral part of it, are a series of figures in which, with an illustrative but not limiting character, the following is represented:

[0015] Figure 1. A breakdown in perspective of a practical construction of the improved vending machine for solid products the subject of the present invention.

[0016] Figure 2. Seen in elevation, a front view of the vending machine for solid products with the coffee vending machine.

[0017] As can be appreciated in these figures, two machine bodies can be essentially distinguished, one below (2) vending solid products and another above (1), normally for hot drinks, with its corresponding selection panel (3), cash input slot (4), forming a support tray (5).

[0018] The lower vending machine for solid products (2), in spite of forming an assembly with the upper hot

drinks machine (1), can operate independently, in the sense that the hot drinks machine (1) has available a choice selector (3) with its cash input slot (4), which can be shared with the machine vending solid products, the means for the delivery of the drink (6) and the normal mechanisms for this type of machine, although the coffee and hot drinks vending machine (1) has a relationship of dependence on the solid products machine (2) with regard to supply and drainage.

[0019] On the other hand, given that these machines (1) need receptacles (7), both for supply and for collection of liquids, and receptacles for collection of the more solid waste (8), the vending machine (2) has available in its posterior part the housing and compartments (9) necessary for this purpose, with the openings (10) of connection between these receptacles and the hot drinks machine (1) above. Therefore this upper machine (1) is able to be mounted on top of the lower solid products vending machine (2).

[0020] At the front, in the lower part, are the typical elements of a vending machine (2) of solid products, preferably for articles associated with the hot drinks served by the upper machine (1), such as a display (11) of the products available, a drawer (12) for collection of the product selected, with the possibility of using a single cash input slot and general selector (3) of products in common for both machines.

[0021] At the side of this lower body there is the means of access (13) to the receptacles, simplifying their handling independently of the function of the front of this unit, which constitutes the vending machine (2) for solid products.

[0022] The application and operation of this improved machine for solid products is simple. Both machines are loaded (1 and 2) with the corresponding products, the supply receptacles (7) supplying the upper hot drinks machine (1) being filled with, for example, water, and the waste containers being arranged in the corresponding receptacles (8), and the corresponding connections between these receptacles (7, 8), and the machine being made through the openings (10).

[0023] The product selector (3) can be used independently for one single machine or for both, as can the cash input slot (4), and when these are used in common for both machines then only one set is needed, thus lowering costs and making the use of the machine easier.

[0024] The vending machine (1) for hot drinks is placed on top of the lower vending machine unit for solid products (2), and in the posterior part of this there is a volume (9) which houses the receptacles (7 and 8) as mentioned. With this arrangement of the machine, the solid products are displayed in the lower front part (11), and can be collected from the drawer (12) in the usual way.

[0025] The upper surface (5) of the solid products machine is used as a tray, without the need for different pieces, since the configuration of the lower unit forms this tray or table.

[0026] Through all this, a combination machine comprising two vending machines is obtained, in which the upper part makes hot drinks available (1), and the lower part solid products (2), in addition to providing the housing of all the utensils and receptacles for the use and service of the hot drinks machine, obtaining in this way a greater usage of the available space and the means employed.

[0027] Having sufficiently described the nature of this invention, and the manner of putting it into practice, it only remains for us to add that in the assembly and the parts comprising it, it is possible to introduce changes of shape, materials and arrangement, provided that such alterations do not substantially vary the characteristics of the invention which is claimed hereunder.

Claims

1. An improved vending machine for solid products, of the kind which is used through the selection of a product by a selector of choices (3) and payment by means of a cash input slot (4), characterised because a lower machine body (2) can be distinguished, vending solid products, on top of which there can be installed, on a supporting surface (5), an upper machine (1) for hot drinks, showing in the front of the lower part the typical elements of an vending machine (2) of solid products, such as a display (11) of the available products and a drawer (12), with a means of access (13) to these receptacles.
2. An improved vending machine for solid products according to claim 1, characterised because it has available in the posterior part of the vending machine for solid products (2), the housing and compartments (9) necessary for the receptacles (7) of both supply and collection of liquids, and receptacles for the collection of the more solid waste (8), characteristic of an vending machine for coffee and hot drinks.
3. An improved vending machine for solid products according to the first claim and the above, characterised because the upper surface area (5) of the vending (2) machine of solid products has openings (10) for connection between these receptacles (7 and 8) and the hot drinks machine (1) above.
4. An improved vending machine for solid products according to the first claim and above, characterised because the surface area (5) of the lower machine (2) serves the function of a support tray, without the need of different pans, because the configuration itself of the unit of the lower machine (2) already itself forms this tray (5).

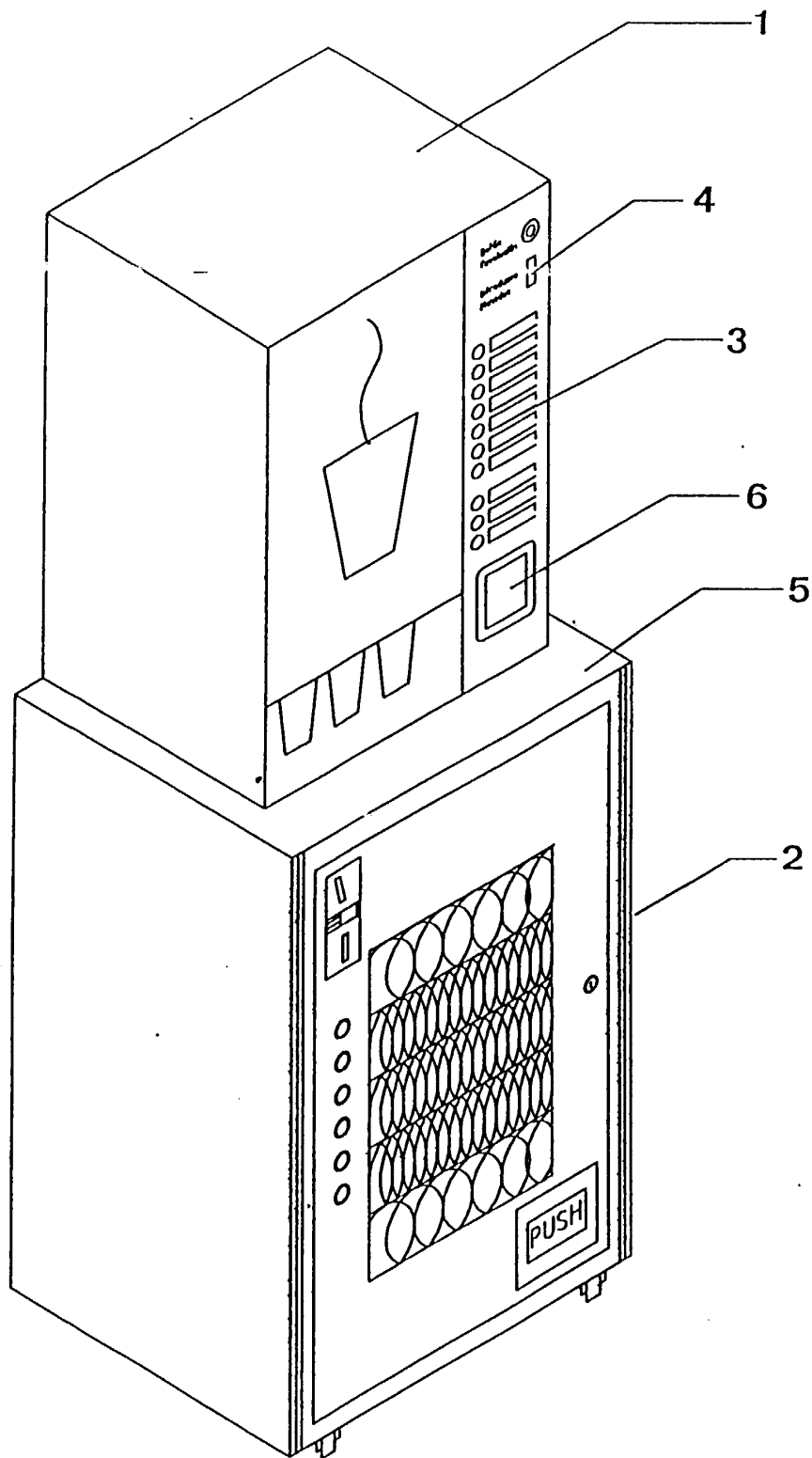


FIGURA 1

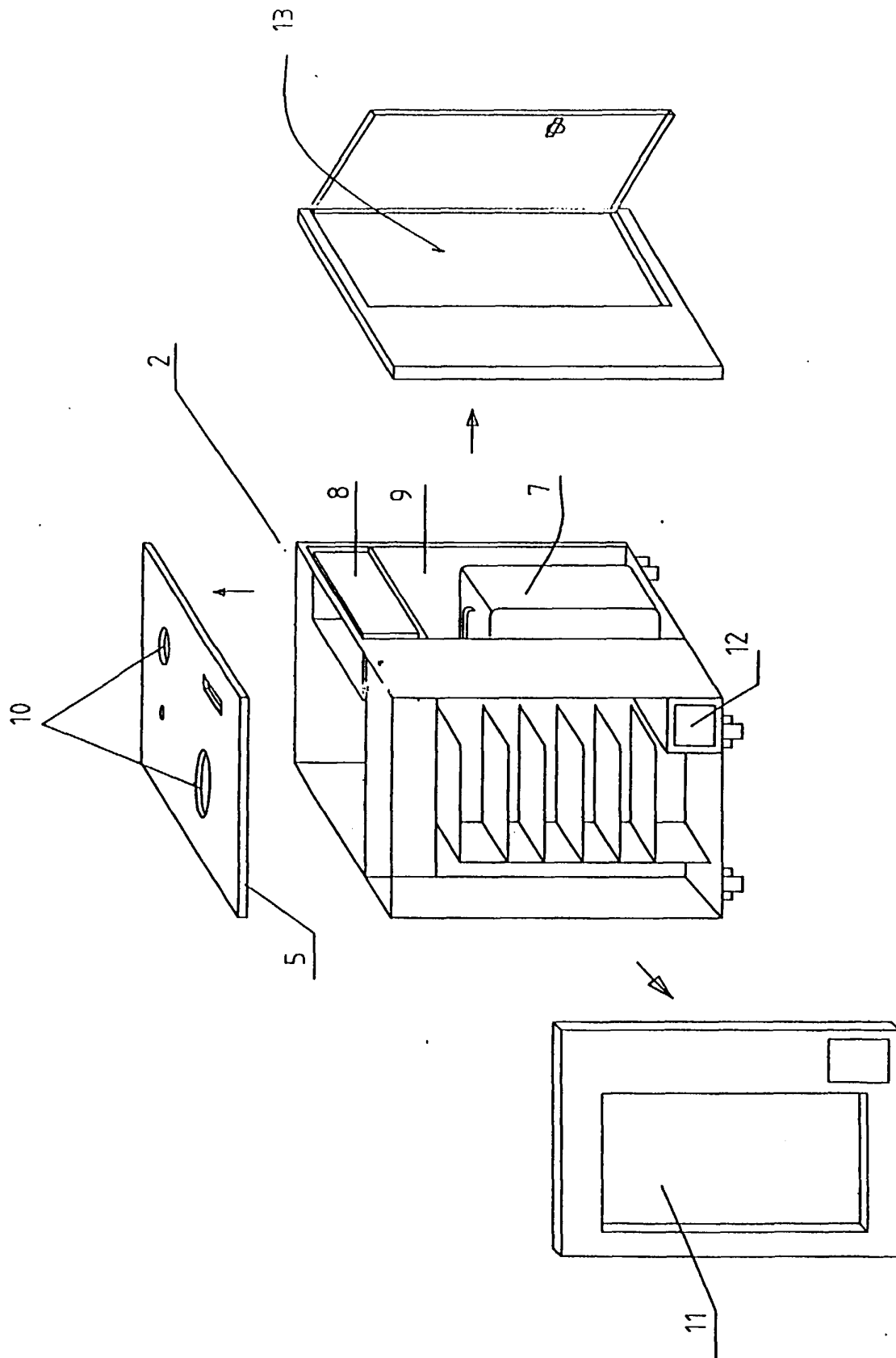


FIGURA 2



European Patent
Office

EUROPEAN SEARCH REPORT

Application Number
EP 99 50 0162

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
Y	US 4 121 707 A (JACOBS PHILIP F ET AL) 24 October 1978 (1978-10-24) * abstract * * column 1, line 51 - line 68 * * column 2, line 65 - line 68 * * claims 1,6,9,10 * * figures 1,13 * ---	1-4	G07F11/00 G07F13/00
Y	US 4 823 984 A (FICKEN LEONARD A) 25 April 1989 (1989-04-25) * column 8, line 43 - column 9, line 3 * * figure 2 * ---	1-4	
A	US 5 555 793 A (TOCCHET IVAN ET AL) 17 September 1996 (1996-09-17) * column 2, line 47 - line 49 * * column 4, line 27 - line 41 * * figure 2 * -----	1	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			G07F
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 10 March 2000	Examiner Wolles, B
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

EPO FORM 1503 03 92 (P04C01)

**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

EP 99 50 0162

This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.
The members are as contained in the European Patent Office EDP file on
The European Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

10-03-2000

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 4121707 A	24-10-1978	SE 401281 B	24-04-1978
		SE 7602950 A	03-09-1977
US 4823984 A	25-04-1989	US 4730750 A	15-03-1988
		DE 3883830 D	14-10-1993
		DE 3883830 T	05-01-1994
		EP 0288142 A	26-10-1988
		CA 1310620 A	24-11-1992
		EP 0244990 A	11-11-1987
US 5555793 A	17-09-1996	IT 1265570 B	22-11-1996
		DE 69415955 D	25-02-1999
		DE 69415955 T	27-05-1999
		EP 0662230 A	12-07-1995
		GR 3029807 T	30-06-1999
		JP 8508126 T	27-08-1996
		AT 175797 T	15-01-1999
		CA 2145524 A	09-02-1995
		WO 9504334 A	09-02-1995
		ES 2129663 T	16-06-1999