(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 325 334 A1**

(12) EUROPEAN PATENT APPLICATION

(21) Application number: **89200103.3**

(51) Int. Cl.4: **G07G 1/00 , A47B 88/22**

(22) Date of filing: **18.01.89**

(30) Priority: **19.01.88 NL 8800117**

(43) Date of publication of application:
26.07.89 Bulletin 89/30

(84) Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE

(71) Applicant: **Bal, Albert**
Irenelaan 21
NL-3781 VH Voorthuizen(NL)

(72) Inventor: **Bal, Albert**
Irenelaan 21
NL-3781 VH Voorthuizen(NL)

(74) Representative: **Lips, Hendrik Jan George, Ir. et al**
HAAGSCH OCTROOIBUREAU Breitnerlaan 146
NL-2596 HG Den Haag(NL)

(54) Assembly of a cabinet and cash-drawers, as in use with cash-registers and the like.

(57) An assembly of a cabinet (1) and cash-drawers (2,3) and the like, as in use with cash-registers, in said cabinet (1) a rotating platform (4) being provided for rotatably supporting two cash-drawers (2,3) the rear ends of which are facing each other in such a way, that initially one of the cash-drawers (2) may be in use and after rotation of the assembly over 180° the other cash-drawer (3), the side-walls (6) of the cabinet (1) being close to the side-walls of the cash-drawers (2,3) in the use position of one of these cash-drawers (2,3), and the front portion (11) of the side-walls (6) being removable or displacable to allow rotation of the platform.

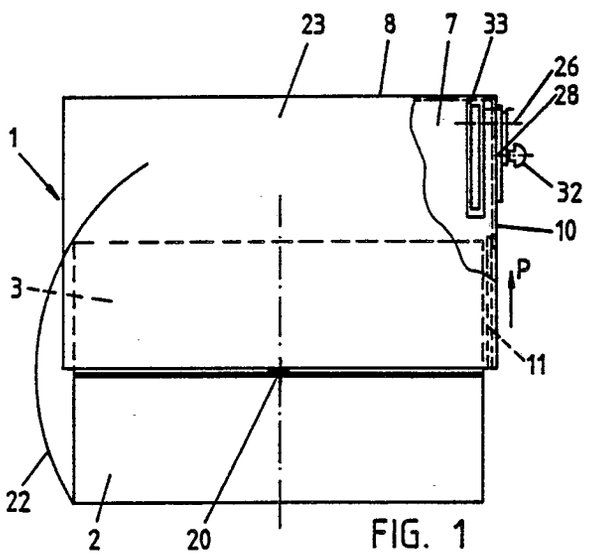

FIG. 1

EP 0 325 334 A1

Assembly of a cabinet and cash-drawers, as in use with cash-registers and the like.

The invention relates to an assembly of a cabinet and cash-drawers, as in use with cash-registers and the like.

In many enterprises, such as for example supermarkets and the like, it is a requirement that two separate cash-drawers are present, so that, if a cash-girl is absent for a short while, another cash-girl can take over the activities, but making use of her own cash-drawer then, so that only she is responsible for this.

In known assemblies two cash-drawers are thus mounted one above the other. This causes disadvantages, however, if on top of the cabinet with the cash-drawers the cash-register is positioned, on which the cash-girl has to strike the amounts. The cash-register will then either be positioned too high, or if the whole cabinet is lowered, a shortage in leg-room will be created.

The invention aims to avoid these disadvantages and provides to that purpose that means are provided in the cabinet for rotatably supporting two cash-drawers, the rear end of these cash-drawers facing each other in such a way, that initially one of the cash-drawers may be in use and after rotation of the assembly over 180° around a substantially vertical shaft, the other cash-drawer.

In most of the known types of such assemblies sufficient space is available to position a cash-drawer behind the other one, as a cash-drawer does not require a large depth.

If now the one cash-girl transfers her duties to another cash-girl, the one cash-drawer is locked up by the first cash-girl and the cash-drawers are rotated so that the other one will be available for use.

According to an embodiment of the invention the means for rotatably supporting two cash-drawers will comprise a rotating platform, on which the cash-drawers are removably positioned.

Generally speaking it is required, that the cash-drawers are removed from the cabinet after closing hours of the enterprise to be put away for example into a safe, or to be emptied immediately. On reopening of the enterprise a cash-drawer can then be made available to a cash-girl, which may contain a specific amount of change.

If in the above there is reason of a cabinet, this may be understood as a supporting frame-work. However, in general a cabinet will be present provided with side-walls which in the use-position of one of the cash-drawers will be close to the side-walls of at least one of the cash-drawers. In order to allow still rotation of the cash-drawers with the rotating platform, the front portion of the side-walls will be removable or displaceable.

Preferably it will be provided, that the front portion of each side-wall can be slided backwards. Thereby the installation requires in its totality little more space than is otherwise the case, while also the rotation of the cash-drawers may take place in a very short time and the side-walls may be quickly returned to their position. An advantage hereby is still that the cash-drawer, not in use, is completely hidden from the eye.

If only one cash-girl is making use of the assembly, she may use the one cash-drawer to keep money therein, that is no longer required as change. It is then not immediately necessary to transfer the excess money to a safe or similar.

In general the cash-drawer is electrically operated. Two systems being used for this to wit a drawer which slides outwards to make it accessible and a cash-drawer being provided with a hinged lid and so remaining in position as such.

It now has appeared that also when applying a rotatable platform with two cash-drawers on it, electric operation of the cash-drawers is possible.

To that end it is provided, that the electric cable by means of which the cash-drawer is operated, extends downward from the cabinet substantially along the rotation axis of the rotating platform, the rotating platform and the cabinet being provided with abutments in such a way that the rotating platform can be rotated only over 180° forward and backward.

In this way it is achieved, that the electric cable is exposed to a slight deformation only, to know between two positions, as it is prevented that the rotating platform is rotated over more than 180°.

In particular, it may be provided that the cabinet is having an upper plate, which at the edge near the cash-drawer, is hingedly connected to the cabinet and which may be adjusted under an angle with respect to the upper surface of the cabinet.

If thus a cash-register is positioned on the cabinet, the key-board of it may be positioned under a desired angle by the cash-girl herself, ensuring an optimal operation thereof. In general a cash-girl will wish to position the key-board under a specific angle, depending on her height.

In particular the embodiment will be such, that the adjustment of the angle can be performed stepless.

In particular the stepless adjustment will take place by means of a disc, being rotatable with respect to an axis extending parallel to the hinge-shaft of the upper plate, the outer circumference of said disc being excentrically with respect to the rotation axis, in which the disc may be clamped in any desired position.

Thus the disc can be rotated to a specific position, whereby the hinged upper plate will assume the desired position and can then be clamped in the relevant position so that a simple and reliable device is obtained.

The invention is now further elucidated by means of an embodiment, shown in the drawing, in which:

Fig. 1 schematically shows a plan view of an assembly according to the present invention;

Fig. 2 shows a front view of the device according to Fig. 1;

Fig. 3 shows a side view of the device of Fig. 1;

Fig. 4 shows a view of a part of the device of Fig. 1 but with deletion of the cash-drawers;

Fig. 5 shows a side view of the components of Fig. 4 and

Fig. 6 shows a plan view of a component of the rotating platform shown in Fig. 5.

The assembly shown in the drawing substantially consists of the cabinet 1 and the two cash-drawers 2 and 3, which are supported by means of the rotating platform 4.

The cabinet 1 comprises a bottom plate 5, side-walls 6, the upper wall 7 and the rear wall 8. The bottom plate 5 may be provided with one or more stiffening profiles 9. The side walls 6 comprise a fixed part 10 at the rear and a front part 11, which may be slided backward, so in the direction of arrow P in Fig. 1.

The rotating platform 4 comprises two plates 12, for supporting the cash-drawers 2 and 3 on it. The plates 12 are interconnected because each plate is provided with a flanged portion 13, said flanged portions being interconnected by means of bolts 14, of which only the center line is shown. The plates 12 are supported by means of a disc 15, which is shown in plan view in Fig. 6. The disc 15 has two tongues 16, turned downward from the plane of the disc, which alternatingly may come into contact with a tongue 17, being fixedly connected to the bottom plate 5. If one abutment tongue 16 of the disc 15 is contacting the tongue 17, as this is shown in Fig. 6, the disc can be rotated only over 180° in the direction of the arrow R, until the other tongue 16 rests against the tongue 17. In that position the cash-drawer 2, which in Fig. 1 is in the use position, will have arrived in the position of the cash-drawer 3 and the cash-drawer 3 will then be in the use position. To return the cash-drawer 2 to the use position again, the rotating platform 4 can be rotated only in opposite direction, thus in the opposite direction of the arrow R, until the position of the disc 15, shown in Fig. 6, is obtained again.

By this it is prevented that the electric cable 18, which allows operation of the cash-drawers, is twisted too much and thus might brake down.

In fig. 5 additionally schematically are shown the parts 19, connected to the plates 12, which see to the releasable connection of the cash-drawers 2 and 3 to the plate 12. These systems are known per se and so need not to be described in detail.

The rotatable connection of the rotating platform 4 to the bottom plate 5 of the cabinet occurs by means of the bolt 20, by which simultaneously the plates 12 are pressed against the disc 15 via pressure plate 21. The pressure plate 21 extends through an opening 35 in the flanged portions 13 of the plates 12.

As the combined weight of the cash-drawers 2 and 3 and the rotating platform 4 is transferred to the bottom plate 5 of the cabinet 1 at the location of the bolt 20, a stiffening profile 9 will be present at any rate at the location of the bolt 20.

In Fig. 1 a part of the arc 22 is shown which is described by the corner of the cash-drawer 2 when the rotating platform is rotated with respect to the vertical center line of the bolt 20. Obviously to that end the front portions 11 of the side walls should at first be slided backward and that after the rotation the portions can be moved forward again. By this the drawers 2 and 3 are automatically retained in their position.

Figs. 1 and 3 still show the possibility to mount an upper plate 23 above the upper wall 7 of the cabinet 1, which is hingedly connected to the cabinet 1 near the front edge 24. A cash register may for example be positioned on the plate 23.

For the stepless adjustment of the angle α between the upper plate 23 and the cabinet 1, use is made of a semi-circular disc 25, which is fixedly connected to a shaft 26 in an excentrically located point, said shaft being supported in a manner not shown by the fixed portion 10 of the side wall of the cabinet 1. The shaft 26 is fixedly connected to the one end of an arm 27. A bolt 28 extends itself through the other end of the arm 27 which also passes through a slot 29 in a leg 30, which is hingingly connected to the portion 10 of the side wall in the point 31. The arm 27 and the leg 30 may be clamped together by means of a handwheel 32, turned on the bolt 28. In this way the arm 27 and leg 30 may be clamped together under a specific angle with respect to each other, by which also the shaft 26 and thus the disc 25 may be held in a fixed position. The angle α between the plate 23 and the upper wall 7 of the cabinet 1 is thus stepless adjustable.

In addition it should be observed that the disc 25 may extend through a slot 33 in the upper wall 7 of the cabinet 1, while in Fig. 1 a part of the upper plate 23 is deleted for better clarity.

As already observed above the cash-drawers 2

and 3 may be designed in such a way, that they become accessible by means of a hinged lid 34, that may be opened electronically. However, the cash-drawers may also be designed in such a way, that they may slide forward from a closed cabinet, this is also known in practice.

It will be obvious that only a possible embodiment of the invention is shown in the drawing and discussed above and that many modifications may be made without departing from the spirit of the invention.

Claims

1. Assembly of a cabinet (1) and cash-drawers (2,3) whereby the cabinet (1) is suitable for comprising more than one cash-drawer (2,3) as in use with cash-registers and the like,
characterized in
that in the cabinet (1) means (4) are provided for rotatably supporting two cash-drawers (2,3), the rear ends of these cash-drawers facing each other in such a way, that initially one of the cash-drawers (2) may be in use and after rotation of the assembly over 180° the other cash-drawer (3).

2. Assembly according to claim 1,
characterized in
that the means comprises a rotating platform (4), on which the cash-drawers (2,3) can be removably positioned.

3. Assembly according to claims 1 or 2,
characterized in
that the side-walls (6) of the cabinet (1) are close to the side-walls of at least one of the cash-drawers (2,3) in the use position of one of the cash-drawers (2,3) and that the front portion (11) of the side-walls (6) is removable or displacable.

4. Assembly according to claim 3,
characterized in
that the front portion (11) of each side-wall (6) can be slided backward.

5. Assembly according to one of the preceding claims, characterized in
that the electric cable (18) by means of which the cash-drawers (2,3) are operated, extends downward from the cabinet (1) substantially along the rotation axis (20) of the rotating platform (4), the rotating platform (4) and the cabinet being provided with abutments (16,17) in such a way that the rotating platform (4) can be rotated over only 180° forward and backward.

6. Assembly in particular according to one of the preceding claims,
characterized in
that the cabinet (1) has an upper plate (23), which at the edge near the cash-drawer (2,3) is hingedly connected to the cabinet (1) and which may be adjusted under an angle (α) with respect to the upper surface (7) of the cabinet (1).

7. Assembly according to claim 6,
characterized in
that the adjustment of the angle of the upper plate (23) can be carried out stepless.

8. Assembly according to claim 7,
characterized in
that the stepless adjustment is carried out by means of a disc (25) being rotatable with respect to an axis extending parallel to the hinge-shaft (24) of the upper plate (23), the outer circumference of said disc (25) being excentrical with respect to the rotation axis (26), in which the disc can be clamped in any desired position.

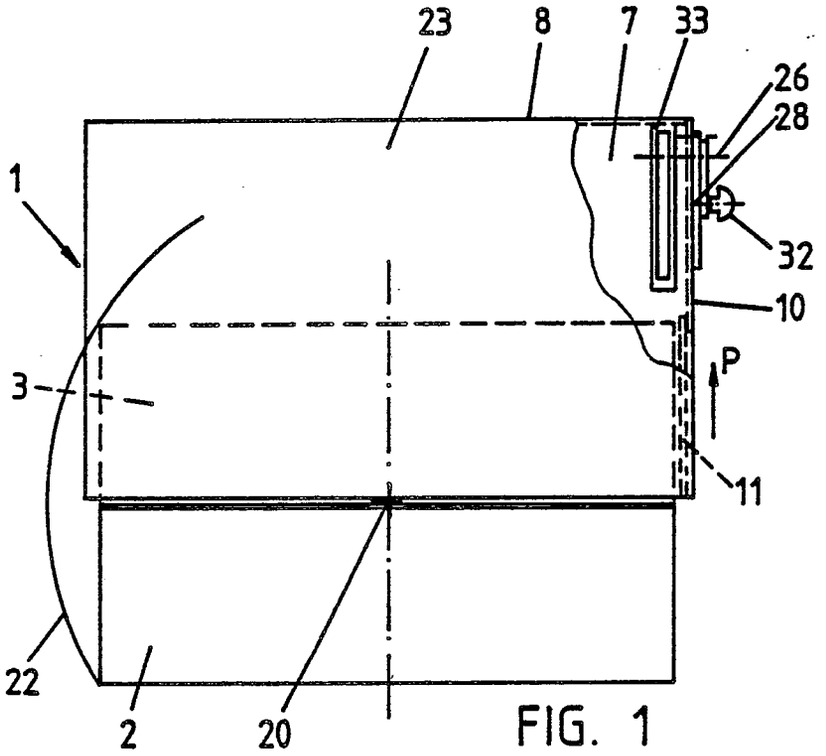

FIG. 1

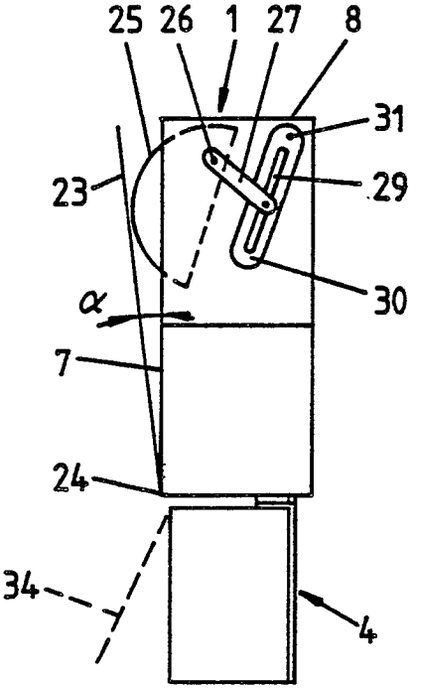

FIG. 3

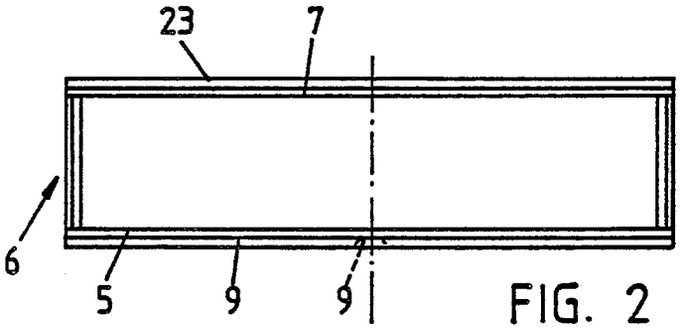

FIG. 2

FIG. 6

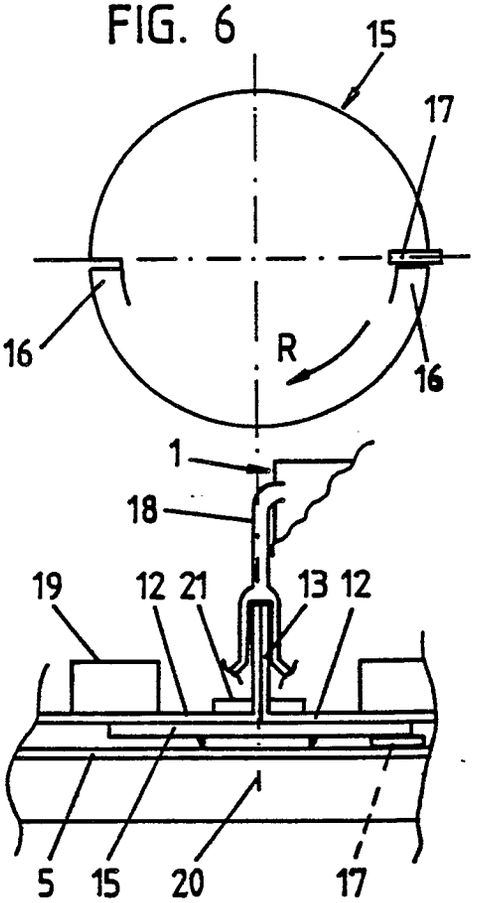

FIG. 5

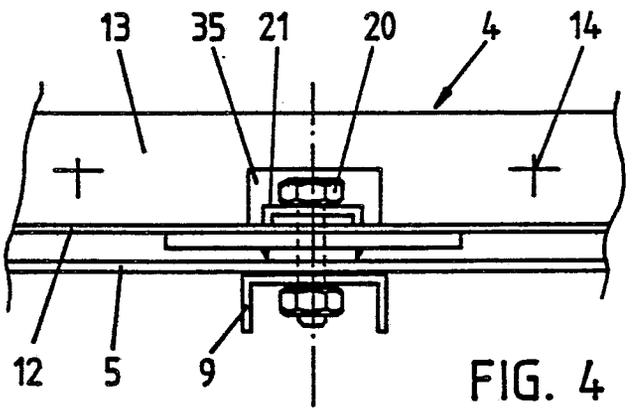

FIG. 4

Albert Bal, Voorthuizen

European Patent Office

EUROPEAN SEARCH REPORT

Application Number

EP 89 20 0103

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.4)
A	US-A-2 883 104 (D. KINTNER) * Column 1, lines 1-59; column 2, line 65 - column 4, line 35; claims 1-7; figures 1-4,8 *	1-8	G 07 G 1/00 A 47 B 88/22
A	GB-A- 493 792 (SVENSKA KASSAREGISTERAKTIE-BOLAGET) * Page 1, line 27 - page 2, line 55; claims 1-4 *	1,3-7	
A	FR-A-2 535 573 (RITZENTHALER et al.) * Abstract; page 2, line 24 - page 3, line 26; figures 1-5 *	1,3-5	
A	EP-A-0 234 596 (CONTROL-COMMERCE AG.) * Abstract; column 2, lines 20-45; claim 1; figures 1-3 *	1	

TECHNICAL FIELDS SEARCHED (Int. Cl.4)

G 07 G
A 47 B
E 05 G

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	26-04-1989	GUIVOL,O.

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 03.82 (P0401)