(11) **EP 1 930 858 A1**

(12)

EUROPEAN PATENT APPLICATION

(43) Date of publication:

11.06.2008 Bulletin 2008/24

(51) Int Cl.:

G07D 9/02 (2006.01)

(21) Application number: 06460044.8

(22) Date of filing: 07.12.2006

(84) Designated Contracting States:

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated Extension States:

AL BA HR MK RS

(71) Applicant: Beyger, Krzysztof 05-500 Piaseczno (PL)

(72) Inventor: Beyger, Krzysztof 05-500 Piaseczno (PL)

(74) Representative: Rowinska, Anna UI. Stefana Bryly 3 m. 437 PL-02-685 Warszawa (PL)

(54) Cash tray

(57) The cash tray, according to the invention, is intended to put money, particularly coins, on it during commercial transactions and to present the advertising material placed on the monetary plate $(\underline{2})$ of the cash tray.

The cash tray, according to the invention, is

equipped with the luminous system ($\underline{3}$) comprising the light source (\underline{B}) favourably formed by at least one LED diode connected with its poles to a microprocessor control system \underline{A}) powered by a current from the battery (\underline{D}) and started by the piezoelectric transducer (C).

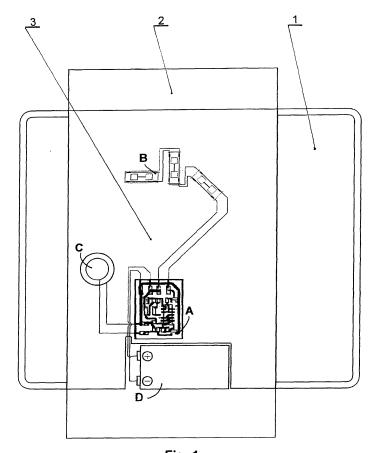


Fig. 1

[0001] The subject of the invention is a cash tray, which is a device comprising the base and the monetary plate intended to put money, particularly coins, on it during commercial transactions and to present the advertising material placed on the monetary plate.

1

[0002] A characteristic feature of the cash tray known from the Polish P-378861 patent specification is that the front part of the cash tray is composed of two concave plates: the lower and upper ones, fixed to the recess in the cash tray base, and there is a free, flat space between the lower and the upper plate of the cash tray front part designed to put a replaceable advertising material in it.

[0003] The cash trays known and used so far do not expose in a sufficiently distinct manner the advertising material put on the monetary plate or sufficiently attract the customers' attraction and interest in the advertising material placed on the cash tray monetary plate.

[0004] A characteristic feature of the cash tray, according to the invention, comprising the base and the monetary plate, is that the cash tray base is equipped with a luminous system comprising the light source favourably formed by at least one LED diode connected with its poles to a microprocessor control system powered by a current from the battery and started by a piezoelectric transducer. The light source in the luminous system can illuminate in a continuous or pulsing mode. The pre-programmed illumination mode and time is controlled via the microprocessor control system. The light source formed by LED diodes in the luminous system makes up an advantageous diode segment of a closed loop.

[0005] The cash tray, according to the invention, is distinguished with its simple construction; it is composed of a small number of elements and it is reliable and cheap in operation. Thanks to the application of the luminous system in the cash tray, the advertising material placed on the monetary plate becomes more distinct and visible for the buyer. It brings an effect intended for the cash tray, according to the invention, in the form of the buyer's interest in the advertising material placed on the monetary plate.

[0006] The subject of the invention is shown in the Figure, where:

Figure 1 shows the cash tray with the luminous system installed inside it, top view.

Figure 2 shows the cash tray with the luminous system installed inside it, perspective view.

[0007] The cash tray, according to the invention, shown in Figure 1 and Figure 2, comprises the base 1, the monetary plate 2 and the luminous system 3 installed in the base 1 of the cash tray. The luminous system 3 of the cash tray is equipped with the light source B formed by several LED diodes connected by their poles to the microprocessor control system A, which is powered by a current from the battery **D** and started by the piezoelectric transducer C. The LED diodes forming the light source B are interconnected by their poles in such a manner that they make up a diode segment of a closed loop. The function of the piezoelectric transducer C in the luminous system 3 of the cash tray, according to the invention, is to switch on and activate the microprocessor control system A, which controls the current from the battery D that results in the illumination of the light source B formed by LED diodes for a specified period of time in a continuous or pulsing manner, depending on the illumination mode and time pre-programmed in the microprocessor control system A. As soon as the illumination algorithm pre-programmed for the luminous system 3 is completed, the LED diodes go off and the microprocessor luminous system 3 is activated by the piezoelectric transducer \underline{C} only after it receives another impulse from a coin dropped on the monetary plate 2.

[0008] The result of the installation of the luminous system 3 in the base 1 of the cash tray, according to the invention, is that each time the monetary plate 2 is hit by a coin dropping on the plate, the piezoelectric transducer C is activated by the activation of the microprocessor control system A, which results in the illumination of the light source B formed by LED diodes in a specified manner and for a specified period of time. The illumination mode and time of the light source B formed by LED diodes is pre-programmed, for instance, in the microprocessor control system \underline{A} , for the illumination time in two ways: for 4 seconds as a continuous light and for 4 seconds as a pulsing light. The illumination of the light source B formed by LED diodes has such an effect that the advertising material placed on the monetary plate 2 attracts the customers' attention and interest in the advertising material, which is more visible for the customers.

Claims

35

40

45

50

- 1. A characteristic feature of the cash tray, according to the invention, comprising the base and the monetary plate, is that the cash tray base (1) is equipped with the luminous system (3) comprising the light source (B) favourably formed by at least one LED diode connected with its poles to the microprocessor control system (A) powered by a current from the battery (D) and started by the piezoelectric transduc-
- 2. A characteristic feature of the cash tray, according to claim 1, is that the light source (B) can illuminate in a continuous or pulsing way. The pre-programmed illumination mode and time is controlled via the microprocessor control system (A).
- 55 A characteristic feature of the cash tray, according to claim 1, is that the light source (B) formed by LED diodes in the luminous system (3) makes up an advantageous diode segment of a closed loop.

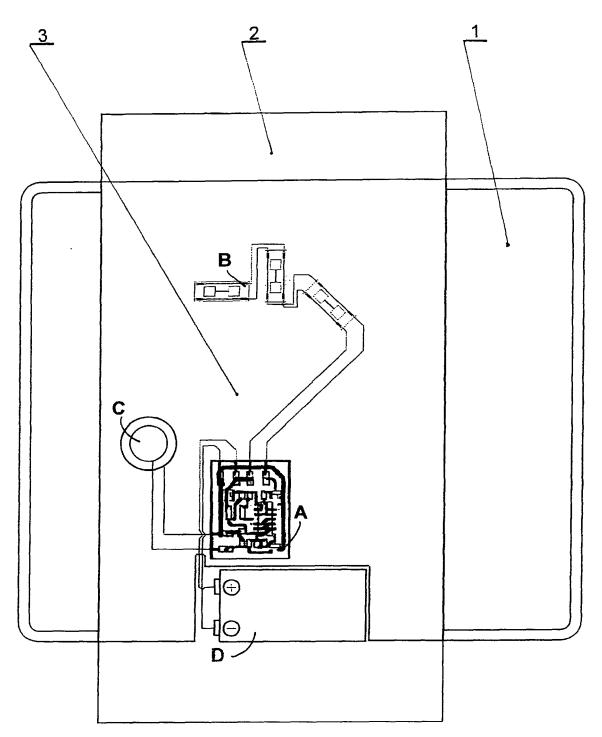
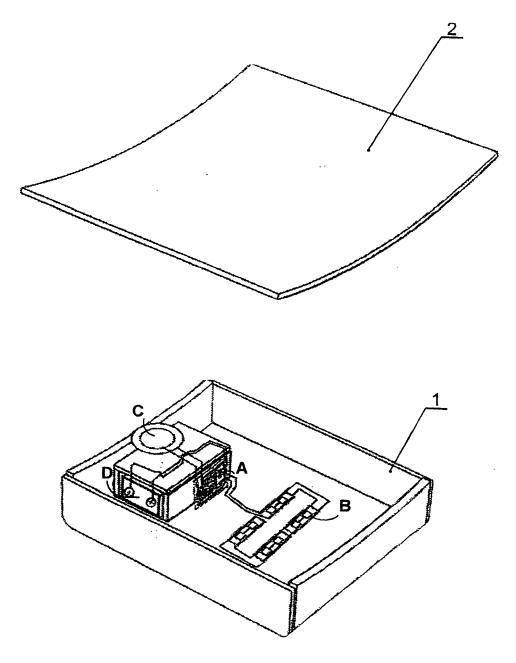


Fig. 1





EUROPEAN SEARCH REPORT

Application Number EP 06 46 0044

	DOCUMENTS CONSIDE Citation of document with inc	Relevant	CLASSIFICATION OF THE	
Category	of relevant passa		to claim	APPLICATION (IPC)
Х	WO 2005/043471 A (II CARLO ANTONIO [IT]) 12 May 2005 (2005-05 * page 2, lines 5-10 * page 2, line 35 - * figures 1-3 *) * [*]	1-3	INV. G07D9/02
X	FR 2 790 127 A (RIEN 25 August 2000 (2000 * page 2, lines 5-25 * page 3, lines 6-25 * page 4, line 26 - * figures 1,2 *)-08-25) 5 * 9 *	1-3	
Х	AL) 2 March 1999 (19	HILBACH PETER [DE] ET 1999-03-02) · column 4, line 3 *	1-3	
				TECHNICAL FIELDS SEARCHED (IPC)
				GO7D
	The present search report has be	•		
Place of search The Hague		Date of completion of the search 15 March 2007	Esp	Examiner Duela, Vicente
X : part Y : part docu A : tech O : non	ATEGORY OF CITED DOCUMENTS icularly relevant if taken alone icularly relevant if combined with another incularly relevant acategory inclogical background written disclosure rmediate document	T : theory or principle E : earlier patent doo after the filing date	underlying the i ument, but public the application r other reasons	nvention shed on, or

EPO FORM 1503 03.82 (P04C01)

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

EP 06 46 0044

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.

15-03-2007

cite	Patent document ed in search report		Publication date		Patent family member(s)		Publication date
WO	2005043471	Α	12-05-2005	EP	1678688	A1	12-07-200
FR	2790127	Α	25-08-2000	NONE			
US	5877852	A1		NONE			
	tails about this annex						

EP 1 930 858 A1

REFERENCES CITED IN THE DESCRIPTION

This list of references cited by the applicant is for the reader's convenience only. It does not form part of the European patent document. Even though great care has been taken in compiling the references, errors or omissions cannot be excluded and the EPO disclaims all liability in this regard.

Patent documents cited in the description

• PL P378861 [0002]