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(54) **Device for collecting donations**

(57) The invention pertains to a device (1) for collecting donations, which comprises a housing (2), an opening (4) for inserting donations, such as coins and bills, and a cavity (5) for keeping inserted donations. The surroundings of the opening (4) are shaped in such a way as to allow donations to be held above it and to be simply dropped in it.

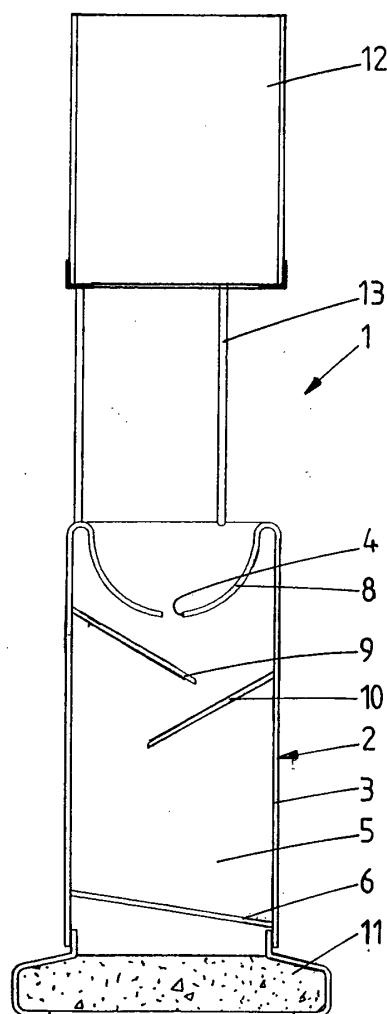


Fig.1

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Description

[0001] The invention relates to a device for collecting donations, which comprises a housing, an opening for inserting donations, such as coins and bills, and a cavity for keeping inserted donations. The invention also relates to a system for checking luggage, cloth and/or personal belongings of persons entering a building or restricted area for the presence of prohibited items.

[0002] Devices for collecting donations are known in the art. For instance, US 4,616,776 relates to a receptacle for collection of monies on a mass location, without the necessity of an individual attendant at each collection site. More specifically, US 4,616,776 relates to a receptacle, which is fixedly secured to the pole of a parking meter by a transverse beam, in order to facilitate easy access to the receptacle by the donating public while at the same time not interfering with the operation of the parking meter itself. The embodiment shown in the drawings of US 4,616,776 is provided with a top wall (denoted by numeral 12) containing a "slotted opening 22 which is large enough to permit coins and bills to be inserted therethrough".

[0003] It is an object of the present invention to provide an improved donation device. More specifically, it is an object to provide a device, which encourages donations of e.g. small change and/or facilitates donations consisting of two or more items, e.g. several coins or bills.

[0004] To this end, the device according to the present invention is characterised in that the surroundings of the opening are shaped in such a way as to allow donations to be held above it and to be simply dropped in it. This can be achieved by e.g. a mesh having openings, which are sufficiently large for letting pass at least coins and preferably also bills. However, it is preferred that the opening is part of a funnel, with the relatively wide end of the funnel being located at or near the top of the housing and the opening and the relatively narrow end being located such that donations inserted in the funnel are directed to the cavity.

[0005] Thus, the device according to the present invention facilitates inserting e.g. a handful of coins without having to insert each coin individually. Especially when the device according to the invention is located near a scanner, a metal detector or similar device e.g. at customs, the entrance of a restricted area or building, or a gate at an airport, and people passing that scanner or detector are required to empty their pockets, the device encourages or at least does not impede more substantial donations. In contrast, prior art devices do require coins or bills to be inserted one by one, thus discouraging (substantial) donations by people who are pressed for time or standing in an impatient queue.

[0006] It is preferred that the device is provided with indications of at least two different charities, thus appealing to larger groups. The entity that is responsible for the installation and maintenance of the donation de-

vices according to the invention is preferably also responsible for collecting the donations and distributing the same amongst the various charities.

[0007] The invention further pertains to system for checking luggage, cloth and/or personal belongings of persons entering a building or restricted area for the presence of prohibited items, characterised in that the system comprises a device for collecting donations, preferably a device as described above and/or preferably located at or next to that station, e.g. within two meters from that station.

[0008] The invention will now be explained in more detail with reference to the drawings, which schematically show a preferred donation device and a preferred system.

[0009] Figures 1-3 show respectively a cross-section, a side view and a top view of a preferred embodiment according to the present invention.

[0010] Figures 4 and 5 show respectively a front view and a top view of a system according to the present invention.

[0011] Figures 1-3 show a donation device 1 comprising a housing 2, which in turn comprises a circle-cylindrical sidewall 3 and, at its top end, an opening 4 for inserting donations, such as coins and bills, and which defines a cavity 5 for keeping inserted donations. The housing 2 further comprises an inclined bottom wall 6 and, at the lower side of this bottom wall 6, a lockable door 7 in the sidewall 3. The door 7 provides access to the cavity 5 and allows collecting the donations, e.g. at regular intervals.

[0012] The top of the housing 2 comprises a funnel 8, which is formed integral with the sidewall 3 of the housing 2. The opening 4 is located in the bottom of the funnel 8 and first and second downwardly inclined baffles 9, 10 are present below the opening 4.

[0013] If a handful of coins is held above the funnel 8 and dropped, the coins will slide or roll down the funnel 8, fall through the opening 4, slide or roll along the first and second baffles 9, 10, and fall into the cavity 5.

[0014] The funnel shown in the drawings has an inner surface, which is concave in two directions. As a matter of course, other configurations are also suitable, such as a funnel which is concave in only one direction (about the longitudinal axis of the device), or which is not curved at all, e.g. when the housing has a square cross-section and the funnel comprises four inclined straight plates (cf. inversed pyramid). In another example the funnel comprises a single inclined plate defining a slotted opening and its bottom end. In yet another example the inner surface of the funnel is concave in one direction (about the longitudinal axis of the device) and convex in the other direction.

[0015] The surface of the funnel is preferably smooth, and can be made of polished or brushed metal, preferably stainless steel, and/or can be provided with a low friction coating such as Teflon.

[0016] The baffles 9, 10 will hinder people from reach-

ing into the cavity 5 (e.g. with a magnet or glue on a string).

[0017] The bottom part of the donation device 1 has been weighted, in this example by means of a concrete base 11. In addition, the donation device 1 can be provided with a GPS or a tilt detector coupled to a means for sounding an alarm when the device is being moved or tilted by an unauthorised person and beyond a pre-determined threshold value.

[0018] Donations are further facilitated when the relatively wide end of the funnel 8 is located within a range from 60 to 130 cm, preferably within a range from 80 to 120 cm above ground level.

[0019] Further, the device 1 comprises a sign 12 over the funnel 8 and attached to the circumference thereof by means of a number of rods 13. The sign 12 is provided with indications of two or more charities, in this example four, and located at eye level, i.e. the middle section of the sign 12 is in a range from 160 to 190 cm above ground level.

[0020] Figures 4 and 5 show a system 14 for checking luggage, cloth and/or personal belongings of persons entering a restricted area for the presence of prohibited items. This system comprises a conveyor belt 15 for carrying luggage, coats and the like through a scanner, such as an X-ray machine 16. After placing the said items on the conveyor belt 15, people who want to enter the restricted area are required to hand over any metal items, such as coins, keys and watches, to security personnel and to walk through a metal detector 17. A donation device 1 as described above is positioned next to this metal detector 17. Many people who are at that juncture confronted with generally known charities will consider a donation instead of handing over the said coins to security personnel, especially if they are e.g. on their way to a zone with a different currency and will no longer be needing the said coins. As the device 1 according to the invention will not cause any delay, many people will drop at least part of their coins and possibly also bills in the donation device 1.

[0021] The invention is not restricted to the above-described embodiments, which can be varied in a number of ways within the scope of the claims. For instance, instead of a funnel, it is also possible to employ a mesh having openings, which are sufficiently large for letting through donations, and preferably provided with an upright collar along its circumference.

Claims

1. Device (1) for collecting donations, which comprises a housing (2), an opening (4) for inserting donations, such as coins and bills, and a cavity (5) for keeping inserted donations, **characterised in that** the surroundings of the opening (4) are shaped in such a way as to allow donations to be held above it and to be dropped in it.

2. Device (1) according to claim 1, wherein the opening (8) is part of a funnel (8), with the relatively wide end of the funnel (8) being located at or near the top of the housing (2) and the relatively narrow end and the opening (4) being located such that donations inserted in the funnel (7) are directed to the cavity (5).

3. Device (1) according to claim 1 or 2, wherein, when the device (1) is installed, the relatively wide end of the funnel (8) is located within a range from 60 to 130 cm, preferably within a range from 80 to 120 cm above ground level.

4. Device (1) according to any one of the preceding claims, wherein at least one inclined baffle (9) is present below the opening (4) so as to hinder people from reaching into the cavity (5).

5. Device (1) according to claim 4, wherein at a second inclined baffle (10) is present below the said first baffle (9).

6. Device (1) according to any one of the preceding claims, wherein the bottom part (11) of the device (1) has been weighted.

7. Device (1) according to any one of the preceding claims, which is provided with indications of at least two different charities.

8. Device according to any one of the preceding claims, which comprises an element (12) located over the wide end of the funnel (8) and provided with indications of at least one charity or comprising a surface intended for being provided with such indications.

9. System (14) for checking luggage, cloth and/or personal belongings of persons entering a building or restricted area for the presence of prohibited items, **characterised in that** the system (14) comprises a device (1) for collecting donations, preferably in accordance with any one of the preceding claims.

10. System (14) according to claim 9, which comprises a station (17) where persons have to hand over metal objects, such as coins, keys, watches and the like, and wherein the said device (1) is located at or next to that station (17).

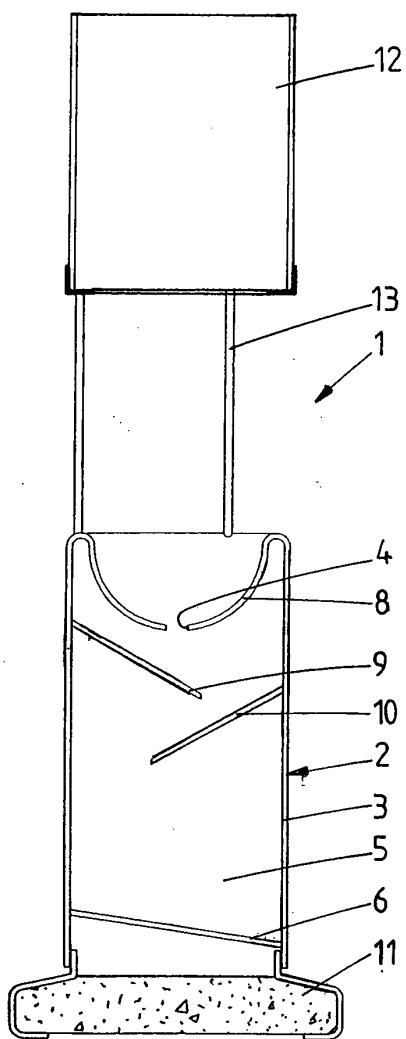


Fig.1

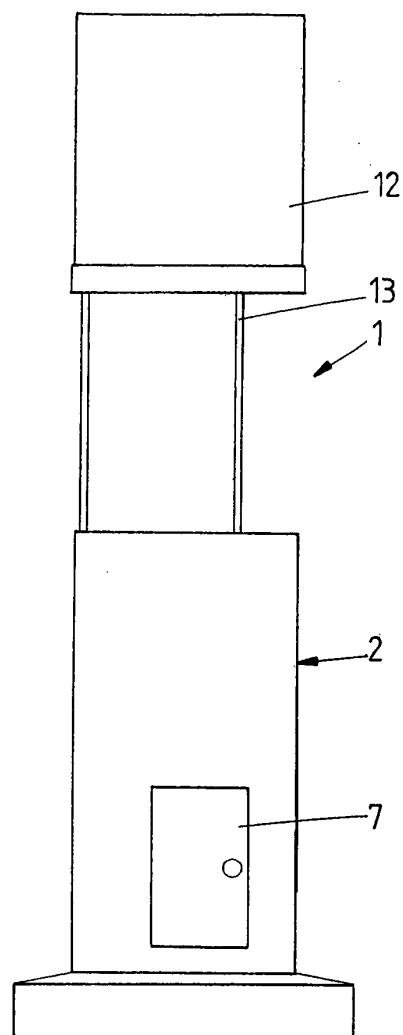


Fig.2

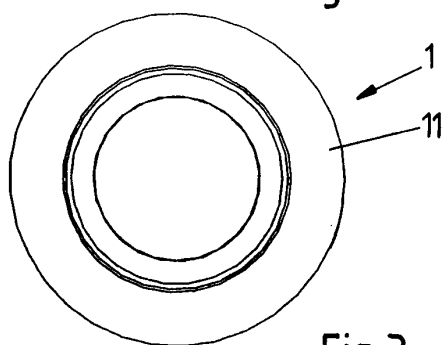


Fig.3

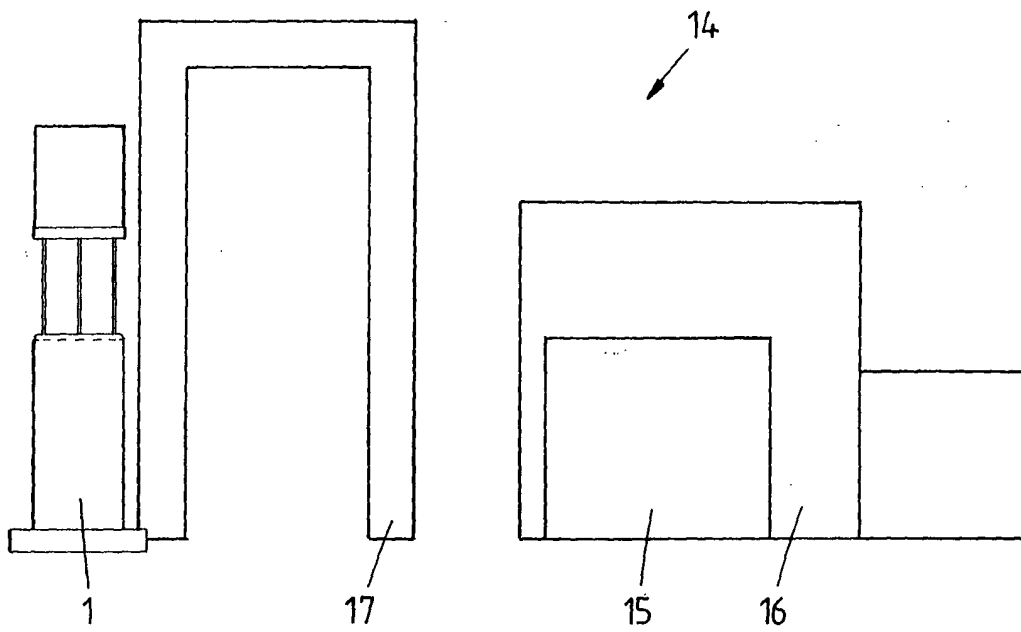


Fig.4

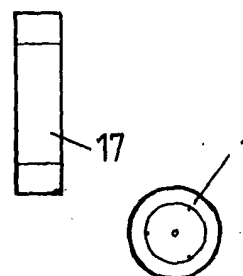
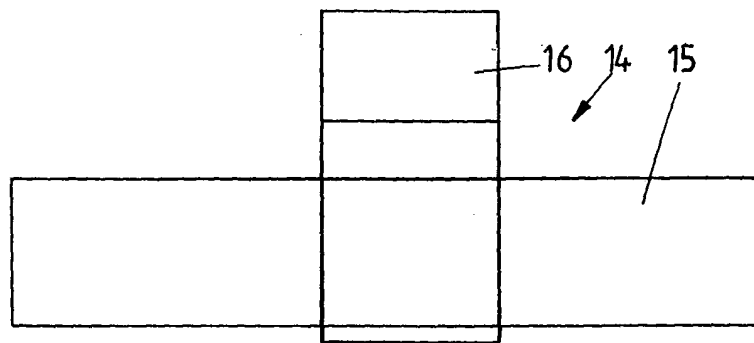


Fig.5



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EUROPEAN SEARCH REPORT

Application Number
EP 04 10 1222

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)
X	US 2 119 592 A (MURDOCK MACDONALD EUGENE) 7 June 1938 (1938-06-07) * page 1, column 1, line 10 - line 20 * * page 2, column 2, line 40 - line 48; figures 1,2 *	1,2,4,5	E05G1/00 G07F9/06
X	US 2 514 846 A (LESLIE COPPOLD) 11 July 1950 (1950-07-11) * column 2, line 30 - column 3, line 18; figures *	1,2,4,5	
A,D	US 4 616 776 A (BEACON GEORGE ET AL) 14 October 1986 (1986-10-14) * the whole document *	1-8	
A	WO 97/23849 A (LE HONG SON ; RIGOLET CLAUDE (FR); ATOLL TECHNOLOGY (FR)) 3 July 1997 (1997-07-03) * figure 1 *	1	
Y	US 4 137 567 A (GRUBE HANS J) 30 January 1979 (1979-01-30) * the whole document *	9,10	TECHNICAL FIELDS SEARCHED (Int.Cl.7)
Y	GB 2 376 872 A (LAKER JONATHAN PAUL) 31 December 2002 (2002-12-31) * the whole document *	9,10	E05G G07F G07B B64F A45C
A		1-8	
The present search report has been drawn up for all claims			
Place of search MUNICH		Date of completion of the search 10 September 2004	Examiner Di Renzo, R
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	

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EPO FORM 1503 03/82 (P04C01)



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CLAIMS INCURRING FEES

The present European patent application comprised at the time of filing more than ten claims.

- ☐ Only part of the claims have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims and for those claims for which claims fees have been paid, namely claim(s):
- ☐ No claims fees have been paid within the prescribed time limit. The present European search report has been drawn up for the first ten claims.

LACK OF UNITY OF INVENTION

The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

see sheet B

- ☒ All further search fees have been paid within the fixed time limit. The present European search report has been drawn up for all claims.
- ☐ As all searchable claims could be searched without effort justifying an additional fee, the Search Division did not invite payment of any additional fee.
- ☐ Only part of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the inventions in respect of which search fees have been paid, namely claims:
- ☐ None of the further search fees have been paid within the fixed time limit. The present European search report has been drawn up for those parts of the European patent application which relate to the invention first mentioned in the claims, namely claims:



The Search Division considers that the present European patent application does not comply with the requirements of unity of invention and relates to several inventions or groups of inventions, namely:

1. Claims: 1-8

A device for collecting donations, comprising a housing, an opening for inserting donations and a cavity for keeping the inserted donation. The surrounding of the opening are shaped in such a way as to allow donations to be held above it and to be dropped in it.

Dependent claims 2-8 describe further features of the device.

2. Claims: 9,10

A system for checking luggage, cloth and/or personal belongings of persons entering a building or restricted area for the presence of prohibited items. The system comprises a device for collecting donations.

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

EP 04 10 1222

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
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10-09-2004

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
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