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**Datasheet for the decision
of 10 June 2021**

Case Number: T 1615/18 - 3.5.06

Application Number: 06006668.5

Publication Number: 1672462

IPC: G06F1/00, G07F19/00

Language of the proceedings: EN

Title of invention:

Cash dispensing automated banking machine and method

Applicant:

DIEBOLD, INCORPORATED

Headword:

Automated banking machine/DIEBOLD

Relevant legal provisions:

EPC Art. 123(2)
EPC 1973 Art. 56
RPBA 2020 Art. 11

Keyword:

Amendments - added subject-matter (no)
Inventive step - (yes)
Remittal - (yes)

Decisions cited:

Catchword:



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Case Number: T 1615/18 - 3.5.06

D E C I S I O N
of Technical Board of Appeal 3.5.06
of 10 June 2021

Appellant: DIEBOLD, INCORPORATED
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Representative: Viering, Jentschura & Partner mbB
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Decision under appeal: **Decision of the Examining Division of the
European Patent Office posted on 8 February 2018
refusing European patent application No.
06006668.5 pursuant to Article 97(2) EPC.**

Composition of the Board:
Chairman M. Müller
Members: G. Zucka
A. Jimenez

Summary of Facts and Submissions

I. The appeal is against the decision by the examining division, dispatched with reasons on 8 February 2018, to refuse European patent application 06006668.5, on the basis that the main and both auxiliary requests did not satisfy the requirements of Article 123(2) EPC and Article 56 EPC 1973. The following documents were cited during the first instance procedure:

D1 = US 6 486 464 B1

D2 = US 6 101 266 A

D3 = US 4 723 072 A

D4 = GB 2 064 111 A

D5 = US 4 023 011 A

II. A notice of appeal was received on 6 April 2018, the appeal fee being paid on the same day. A statement of grounds of appeal was received on 8 June 2018.

III. The appellant requests that the decision under appeal be set aside and a patent granted on the basis of claims for a main request or one of auxiliary requests 1 to 6 filed with the grounds of appeal, the claims for the main request and auxiliary requests 1 and 2 corresponding to those that were the object of the refusal. The appellant made a conditional request for oral proceedings.

IV. Claim 1, the sole independent claim of the main request reads as follows:

"A method comprising:

a) generating a first light signal adjacent a pathway of an automated banking machine with a light source,

wherein the light signal includes an intensity that changes over time in a first pattern, wherein the automated banking machine includes a cash dispenser;

b) detecting light with a light detector positioned adjacent the pathway;

c) determining with the machine, whether an intensity of the detected light varies in time with a pattern that corresponds to the first pattern;

d1) responsive to (c), moving at least one item through the pathway if the machine determines that the intensity of the detected light varies in time with a pattern that corresponds to the first pattern;

d2) responsive to (c), placing the automated banking machine in an out of service state if the machine determines that the intensity of the detected light does not vary in time with a pattern that corresponds to the first pattern."

V. The claims of the other requests are immaterial to the present decision.

VI. The other documents on file are:

Description

Pages 4 to 59 as originally filed,

Pages 1 to 3 and 60 as filed on 31 May 2012;

Drawings

Figures 1 to 121 as originally filed.

Reasons for the Decision

1. *The invention*

The application relates to an automated banking machine including a cash dispenser (first paragraph of claim 1 of all requests). In such a machine according to the prior art, optical sensors including a light source and a light detector may be provided for detecting an obstruction (see page 48, lines 10 to 13 of the description).

The problem to be solved by the application is that a conventional automated banking machine may not be able to detect the presence of an obstruction if for example a substitute light source with its light directed toward the sensor is malevolently placed in the cash pathway (page 48, lines 13 to 18 of the description).

The solution proposed by the application is to generate a first light signal adjacent a pathway of the automated banking machine with a light source, wherein the light signal includes an intensity that changes over time in a first pattern, and by determining whether an intensity of detected light varies in time with a pattern corresponding to the first pattern (page 49, lines 5 to 12 of the description).

Detection of light with no pattern or a different pattern notifies the existence of a problem and the automated banking machine is consequently taken out of service (page 49, lines 13 to 19 of the description).

2. *Main request - Article 123(2) EPC*

The board is of the opinion that, contrary to the finding in the appealed decision (point 2.2), the main request satisfies the requirement of Article 123(2) EPC. The reasons for the objection in the decision are addressed as follows:

2.1 *Omitting [in claims 1 and 3] the circuit included in the sensor and replacing it with the machine broadens the scope of the claim beyond the content of the application as filed.*

As submitted by the appellant (grounds of appeal, II.B.2, third paragraph), the feature according to which it is the machine which determines whether an intensity of the detected light varies in time with a pattern that corresponds to the first pattern is disclosed as feature (c) in original claim 1.

Likewise, original claim 3 specifies, as feature (f), that the determination that the intensity of the detected second light signal does not have an intensity that varies in time with a pattern that corresponds to the first pattern is done with the machine.

2.2 *The omission of the generation of a signal representative of there being a problem with the passageway and responding to this signal is considered in the decision to constitute an inadmissible intermediate generalisation.*

Already in original claim 1 (step (d)) further action takes places in response to step (c), without making reference to a signal.

- 2.3 *The expression "determining with the machine whether **an** intensity of the detected light..." implies that the detected light may have a plurality of intensities, which has no basis in the application as filed.*

As indicated by the appellant (Grounds of appeal, II.B.4, second paragraph), original claim 1 already states that "the light signal includes an intensity that changes over time", implying that both the first light signal and the detected light may have several intensities.

3. *Main request - Inventive step; Article 56 EPC 1973*

- 3.1 The board considers D1 to be a suitable starting point for an inventive step analysis. However, it has established that the disclosure of D1 differs from the finding in the decision (point 3.1.2). More specifically, D1 discloses a method comprising

a) generating a first light signal adjacent a pathway of an automated banking machine with a light source (see abstract; column 3, lines 12 to 14; column 5, lines 3 to 12; column 8, lines 63 to 67; figure 5), wherein the light signal includes an intensity that changes over time in a first pattern (see abstract; column 3, lines 12 to 14; column 5, lines 19 to 26), wherein the automated banking machine includes a cash dispenser (see abstract; column 1, lines 14 to 20; column 9, lines 22 to 23; figure 5);

b) detecting light with a light detector positioned adjacent the pathway (see abstract; column 8, lines 63 to 67; figure 5);

3.2 The difference between claim 1 and the disclosure of D1 is that claim 1 contains the following additional steps:

c) determining with the machine whether an intensity of the detected light varies in time with a pattern that corresponds to the first pattern

d1) responsive to (c), moving at least one item through the pathway if the machine determines that the intensity of the detected light varies in time with a pattern that corresponds to the first pattern;

d2) responsive to (c), placing the automated banking machine in an out of service state if the machine determines that the intensity of the detected light does not vary in time with a pattern that corresponds to the first pattern.

3.3 Contrary to what is stated in the decision, feature (c) is not disclosed in D1.

The decision in this respect refers to D1, column 3, lines 29 to 35. According to this passage, "...the output of each detector is amplified and delivered to the input of a synchronized chopper circuit which is also referred to herein as a chopper. The chopper is generally synchronized to the pulse pattern driving the LED to process generally only signals synchronized with the LED."

The implication of this passage is that signals which are not synchronised with the LED are simply blocked out by the chopper circuit. There is no determination whether a given signal is synchronised. Instead, the aim in D1 is merely to attenuate noise signals, which

have a different frequency or phase than the synchronisation signal, by the discriminator which contains the chopper circuit (see for instance column 6, lines 2 to 5 and column 7, lines 13 to 15).

- 3.4 Failing such determination, D1 also does not disclose any action that would be taken depending on the result of the determination. In particular, steps (d1) and (d2) of present claim 1 are not disclosed in D1.
- 3.5 The problem solved by distinguishing features (c), (d1) and (d2) is to detect the existence of a fake light signal which intends to impersonate the generated first signal, and to take appropriate action.
- 3.6 Although one could conceive reasons why the skilled person reading D1 would wish to detect fake light signals, he or she would normally see no need for it, given that typical fake light signals, which would have an incorrect frequency or phase, are in any case filtered out by the discriminator.

The skilled person would therefore normally not take steps to solve this problem, and even if that person were inclined to do so, neither D1 nor any other document cited in the search report provide any indication as to how to solve it.

- 3.7 In particular, in D1 only a filtering and no detection of unwanted noise signals takes place. An actual detection would need the provision of some unspecified additional circuitry.

D2 relates to the detection of type and condition of banknotes based on radiation reflection transmission patterns.

D3 and D4 relate to the discrimination of banknotes based on light transmission reflection patterns.

D5 discloses and ATM machine using a light sensor to validate banknotes.

- 3.8 The subject-matter of claim 1 of the main request is therefore not obvious in light of the available prior art, and the board concludes that the condition of Article 56 EPC 1973 has been satisfied.

4. *Other issues*

The board has no occasion to raise any objections to the claims on its own volition.

However, the board notes that the description appears to require adaptation to the present claims. For instance pages 2 and 3 of the description mention "examples" of the invention which actually concern features of claim 1, i.e. features not of examples but of the invention itself.

The description therefore needs adaptation under Article 84 EPC 1973.

5. *Remittal*

According to Article 11 RPBA 2020, the board shall not remit a case to the department of first instance, unless special reasons present themselves for doing so. In this board's view, the remittal "with a description to be adapted", as has become common practice of the boards of appeal, is, effectively, a remittal for further prosecution within the meaning of Article

111(1) EPC and under the limitations according to Article 111(2) EPC.

An adaptation of the description in the appeal proceedings would require a further written dialogue with the appellant before an eventual remittal with the order to grant a patent. The board takes the view that it is more efficient to deal with the adaptation of the description as part of the grant procedure under Rule 71 EPC, and considers this to be special reasons for remittal under Article 11 RPBA 2020.

Order

For these reasons it is decided that:

1. The appealed decision is set aside.
2. The case is remitted to the examining division with the order to grant a patent with Claims 1 to 8 of the main request filed with the statement of grounds of appeal of 8 June 2018, and the description and the drawings to be adapted thereto.

The Registrar:

The Chairman:



L. Stridde

M. Müller

Decision electronically authenticated