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**Datasheet for the decision
of 28 April 2008**

Case Number: T 0215/06 - 3.4.03

Application Number: 97927796.9

Publication Number: 0960399

IPC: G07D 7/00

Language of the proceedings: EN

Title of invention:

Method and apparatus for document processing

Patentee:

Cummins-Allison Corp.

Opponent:

DE LA RUE INTERNATIONAL LIMITED
GIESECKE & DEVRIENT GmbH

Headword:

-

Relevant legal provisions (EPC 1973):

EPC Art. 54, 56, 100(a)

Keyword:

"Main request allowable (yes)"
"Could-would approach"

Decisions cited:

-

Catchword:

-



Case Number: T 0215/06 - 3.4.03

D E C I S I O N
of the Technical Board of Appeal 3.4.03
of 28 April 2008

Appellant:
(Patent Proprietor)

Cummins-Allison Corp.
891, Freehanville Drive
Mount Prospect
Illinois 60056 (US)

Representative:

Grünecker, Kinkeldey,
Stockmair & Schwanhäusser
Anwaltssozietät
Leopoldstr. 4
D-80802 München (DE)

Respondents:
(Opponent)

DE LA RUE INTERNATIONAL LIMITED
DE LA RUE HOUSE JAYS CLOSE, VIABLES
BASINGSTOKE, HAMPSHIRE RG22 4BS (GB)

Representative:

Skone James, Robert Edmund
Gill Jennings & Every LLP
Broadgate House
7 Eldon Street
London EC2M 7LH (GB)

(Opponent)

GIESECKE & DEVRIENT GmbH
Prinzregentenstrasse 159
D-81677 München (DE)

Representative:

-

Decision under appeal:

Decision of the Opposition Division of the
European Patent Office posted 13 December 2005
revoking European patent No. 0960399 pursuant
to Article 102(1) EPC 1973.

Composition of the Board:

Chairman: E. Wolff
Members: V. L. P. Frank
U. Tronser

Summary of Facts and Submissions

- I. This is an appeal by the patent proprietor against the revocation of EP 960 399 for lack of novelty (Article 102(1) EPC 1973).

Grounds of opposition were *inter alia* lack of novelty and of inventive step (Article 100(a), 54 and 56 EPC 1973).

- II. The independent patent claims 1 and 18 in the version revoked by the opposition division and defended by the appellant proprietor on appeal as main request read (the paragraphing of the claim's features was added by the board):

- "1. A currency evaluation device for receiving a stack of currency bills and rapidly evaluating all the bills in the stack, said device comprising:
- (a) an input receptacle (12, 404) for receiving a stack of bills to be evaluated;
 - (b) a plurality of output receptacles (217a, b, 408) for receiving said bills after said bills have been evaluated;
 - (c) a transport mechanism (M, N) for transporting said bills, one at a time, from said input receptacle to said output receptacles along a transport path;
 - (d) a discriminating unit (406) for evaluating said bills, said discriminating unit including a detector positioned along said transport path between said input receptacle and said output receptacles, said discriminating unit determining the denomination of said bills;

- (e) means (406) for flagging a bill meeting or failing to meet one or more criteria, said criteria is said discriminating unit determining the denomination of a bill and wherein said means for flagging flags bills whose denominations have not been determined by said discriminating unit;

characterized by

- (f) a routing interface (61, 556) comprising a data retrieval device, said data retrieval device receiving information from a user of said evaluation device specifying to which output receptacles bills flagged by said means for flagging are to be directed;
- (g) said routing interface permitting said user to direct flagged bills to any one or any group of said plurality of output receptacles."

"18. A method of operating a currency evaluation device that discriminates the denomination of currency bills comprising:

- (a) receiving a stack of bills to be evaluated in an input receptacle (12, 404) of the evaluation device;
- (b) transporting said bills, one at a time, from said input receptacle to a plurality of output receptacles (217a,b, 408),
- (c) determining the denomination of said bills under the control of the evaluation device;
- (d) flagging a bill meeting or failing to meet one or more criteria, said discriminating unit determining the denomination of a bill and wherein bills whose denominations have not been determined by said discriminating unit are flagged; and

- (e) receiving information from a user of said evaluation device via a routing interface (61, 556), the information specifying to which output receptacles bills flagged are to be directed;
- (f) said routing interface permitting said user to direct flagged bills to any one or any group of said plurality of output receptacles."

The claims of auxiliary requests A to F are not relevant for this decision.

III. The following prior art documents, *inter alia*, were cited in the opposition procedure:

D1 = US 5 230 653

D3a = De La Rue 3110 MkII Flyer, dated 1987

D3b = De La Rue 3120 Flyer, dated 1987

D3c = Declaration by Mr D. C. Reeves

D3d = De La Rue 3100 series, Operator instructions, published in 1986

D3e = Use of the Diagnostics Function 3110 MkII/ 3120 Machines, dated October 1986

E1 = Geldinstitute-3-1983, pp. 114, 116

E2 = DE 34 12725 C2

E3 = US 4 787 518

IV. Summarizing the decision under appeal, the opposition division found that:

- It was undisputed that document E2 disclosed a currency evaluation device having all the features of the preamble of claim 1 together with a routing interface comprising a data retrieval device. On page 14 of this document, reference was made to the previously described embodiment ("beschriebene Ausführungsform") while describing further options in which bills of a certain preset denomination were directed into any one of the three output receptacles, rejected bills into a second output receptacle and the remaining bills into the third output receptacle. In the same context it was mentioned that there might also be provided more than three output receptacles, giving a clear indication that this passage did not describe the examples set out in Table II, but instead concerned itself with further improvements of that previously described embodiment. Thus, although in the example in Table II the rejected bills were always directed into a specific reject receptacle, E2 additionally suggested that the rejected bills could be assigned to any one of the three output receptacles. By choosing a first output receptacle for a certain denomination and by choosing a second receptacle for rejected bills, the user was able to specify to which output receptacle bills flagged as rejected bills were to be directed according to features (f) and (g) of claim 1. As the method of claim 18 essentially reflected the features of claim 1, document E2 anticipated the subject-matter of each of claims 1 and 18.

- It was further noted *obiter* that it appeared that documents D3a, D3b and D3d had been publicly available, because it was generally true that advertising flyers were published, this being the purpose for which they were produced, and that operation manuals were shipped together with the product. However, as this had been contested by the proprietor further proof of whether the alleged prior use actually constituted prior art would be required. On the other hand, document D3e appeared to be an internal document of the subsidiary of opponent I because it was marked "engineers use only" and therefore directed to employees usually bound by secrecy agreements. This gave a clear indication that D3e was not meant to be publicly distributed or used by those who operated the machines.
- V. The appellant proprietor argued essentially as follows:
- The patent disclosed for the first time a currency evaluation device having multiple output receptacles, which permitted the user to direct those bills whose denomination had not been determined by the discriminating unit to any one or any group of said multiple output receptacles, without exception. This made the device simpler to operate, more flexible and readily customizable.
 - Document E2 disclosed only a single embodiment of a currency evaluation device. In that embodiment, the rejected bills were always directed to a fixed output receptacle. Even if one followed the

opposition division's finding that an option was described to direct bills of a certain preset denomination into any one of the three output receptacles, this did not mean that there was also a choice to direct those bills whose denomination could not be determined to any one of the output receptacles. However, the latter type of bills was the one defined in the claims.

- The prior use of the currency sorting machines shown in documents D3a and D3b was still contested.
- The other prior art documents cited by the respondent opponents did not disclose a currency evaluation machine having the above mentioned flexibility and nothing in the prior art documents suggested such a modification.

VI. Respondent opponent I (De La Rue International Ltd.) argued essentially as follows:

- The currency evaluation device of claim 1 lacked novelty over the prior use of the devices disclosed in documents D3a and D3b which had been available to the public before the priority date of the patent. Document D3e disclosed that the user could decide to which output pocket undetermined bills were sent, i.e. bills which did not correspond to the selected primary pattern could be sent either to the unfit or to the cull pocket. Although this selection was done by an engineer setting up or servicing the machine, the engineer was unquestionably using the machine and in doing so had to be considered a user, because

claim 1 of the patent did not identify the type of user envisaged.

- To allow the user of the devices disclosed in documents D1 or D3 to decide to which output pocket unidentified bills were sent was an obvious modification of these conventional machines. Although in D3 this decision was taken by an engineer setting up the machine, it was straightforward to extend this functionality to any user of the machine. Similarly, document D1 disclosed that the user could decide how damaged bills should be sorted and to which output pocket they were to be sent. Heavily damaged bills were bills that could not be identified. It was straightforward to extend this teaching to all unidentified bills.

VII. Respondent opponent II (Giesecke & Devrient GmbH) argued essentially as follows:

- The opposition's division interpretation of document E2 was correct. This document disclosed a currency sorting machine in which, it was envisaged that, in addition to the features of the previously described embodiment, rejected bills could be delivered to any one of the output trays.
- Document E3 stated that although the demand of currency evaluation devices with a free sorting stacking function existed (ie devices in which the user could freely choose where to stack selected bills), conventional devices only provided fixed sorting stacking functions. From this the respondent

opponent II followed that document E3 disclosed a device in which the type of bills sent to a specified stacking unit could be easily changed, ie a device in which the user could choose where to send *inter alia* the undetermined bills.

- Both documents therefore disclosed a device with all the features of the device of claim 1. And even if that were not the case, the claimed device was a straightforward modification of the conventional devices, which did not involve an inventive step.

VIII. The appellant proprietor requested that the decision under appeal be set aside and the patent be maintained on the basis of the main request submitted during the oral proceedings before the opposition division on 22 November 2005 or on the basis of the auxiliary requests A to F as submitted with the grounds for the appeal (letter dated 19 April 2005).

The respondents requested that the appeal be dismissed.

Reasons for the Decision

1. The appeal is admissible.
2. *Prior use documented by D3a-D3e (Article 54(2) EPC 1973)*
 - 2.1 The opposition division considered that, as the patent proprietor had contested the alleged prior use of the currency sorting machines disclosed in documents D3a and D3b, further proof was required.

- 2.2 The board does not share this view. Documents D3a and D3b are advertising literature which describes the currency sorting machines 3110 MK II and 3120, respectively, while document D3c is a declaration by Mr. D. C. Reeves stating that these machines had been sold in February 1987 and January 1988 (ie well before the earliest priority date claimed for the patent, 29 Mai 1996). The declaration is accompanied by printouts of the details of the shipments to Ciasa Comercial S.A., Mexico and Intermarketing, Finland, which correspond to the above mentioned dates, respectively (annex 1 and 2). Document D3d is the operator's instruction manual of the 3100 Series machines and is dated October 1986.
- 2.3 Document E1 discloses under the heading "De La Rue Garny" the then new model 3100 currency sorting machines which have essentially the features shown in the flyers D3a and D3b. This further supports the alleged public availability of the 3110 MK II and 3120 currency sorting machines at the priority date of the patent, since document E1 dates from 1983, ie about thirteen years earlier.
- 2.4 Thus, respondent opponent I has presented a credible case of prior use, describing in detail where, when, in what way and by whom the alleged prior use occurred (reasons, point 6 of the appealed decision). This has shifted the burden of proof to the appellant, who has, however, simply contested the prior use without presenting any arguments or evidence. A mere unsubstantiated traverse (i.e. a simple denial of an allegation of fact) cannot discharge a shifted burden of proof.

2.5 On the basis of the evidence before it, the board concludes that the machines 3110 MK II and 3120 were available to the public by use before the priority date of the patent, and are therefore part of the state of the art according to Article 54(2) EPC 1973.

2.6 In the following this state of the art will be generically referred to as D3. However, document D3e, ie the diagnostics function instructions for "engineers use only", is not considered to be part of the state of the art, since the respondent opponent I failed to prove that it had been available to the public. Document D3e, however, illustrates the functionality of the currency sorting machines disclosed in D3a and D3b.

3. *Amendments*

Claims 1 and 18 are, respectively, a combination of granted claims 1 and 6, and claims 19 and 24. The requirements of Article 123(2) and (3) EPC are thus fulfilled.

4. *Main request - Novelty (Article 54 EPC 1973)*

It is common ground that the currency evaluation devices disclosed in documents E2 and E3 as well as the devices according to D3 comprise all the features of the preamble of claim 1, namely features (a) to (e).

4.1 *Prior use according to D3*

4.1.1 The currency sorting machines according to D3 comprise three output receptacles, namely two output pockets (the fit and unfit pockets) and a cull/reject pocket.

The cull pocket collects doubles, badly damaged notes, rogue notes and suspect notes (D3a; D3b; D3d, page 4.2, "8. Culls").

4.1.2 The respondent opponent I argued that these machines had the functionality to direct bills which did not correspond to the selected primary pattern either to the unfit or to the cull pocket. This was shown in D3e under point 6 "To alter a process", where the setting of the bits of integers 1 to 4 in the diagnostic routine caused the machine to handle these bills differently. If bit 2 of integer 1 was set then the condition "not primary pattern" sent the bills to the unfit pocket and if bit 2 of integer 3 was set the condition "fail primary pattern" sent the bills to the cull pocket. Consequently, these currency sorting machines had a "data retrieval device receiving information from a user of said evaluation device specifying to which output receptacles bills flagged by said means for flagging are to be directed" (feature (f) of claim 1). This routing interface permitted the user "to direct flagged bills to any one or any group of said plurality of output receptacles" (ibid feature (g)), as the plurality of output receptacles was formed by the unfit and cull pockets.

4.1.3 The proprietor appellant pointed out that document D3e did not disclose what occurred when bit 2 of both integers 1 and 3 was set, since in this case the machine had to send the flagged bills to the unfit and cull receptacles simultaneously. According to the respondent opponent I, in such a case of erroneous programming the machine simply stopped. The setting of the bit values within the integers was intended for the

skilled engineer only and they would only set one of the integers 1 and 3 bit 2 in any particular instance (page 2 of the letter dated 27 March 2008, 2nd paragraph).

4.1.4 While the above explanation appears reasonable, it shows at the same time that it was never intended that the operator of the currency sorting machine would make such settings, but only the skilled engineer either at the factory or during maintenance at the client's site. In the board's view, the user mentioned in features (f) and (g) of claim 1 has to be seen as the intended user of the device, namely the operator who is engaged in or is at least responsible for sorting and counting the notes. This is not the role of the skilled engineer who sets up the machine according to the client's wishes, and such an engineer is therefore not a user of the device. This difference is best illustrated with reference to a piano, where the "user" is the pianist, not the piano tuner.

4.1.5 The board judges for these reasons that D3 fails to disclose a data retrieval device which receives information from a **user of the currency evaluation device** specifying to which output receptacles bills flagged are to be directed. The data retrieval device of D3 is not intended to receive such information from the user, but only from the skilled engineer.

4.2 *Document E2*

4.2.1 The opposition division's finding of lack of novelty of the currency evaluation device of claim 1 was based on document E2.

- 4.2.2 This document discloses a currency evaluation device having three output trays identified successively as the upper tray 18, the lower tray 20 and the reject tray 22 (page 3, lines 4 to 20; Figures 1 and 2). The different modes in which the device can be operated are illustrated in Table II, showing that the rejected bills ("Zurückweisung") are always sent to the reject tray 22. Document E2 further discloses that while in the count mode ("Zähl-Betriebsart") an efficient sorting can be achieved by sorting the selected bills in one of the three available output trays, the rejected bills in a second tray and the remaining bills in the third tray. In the event that four trays are available, two different denominations, remaining and rejected bills can be sorted (page 14, lines 49 to 61).
- 4.2.3 The respondent opponent II argued that the passage on page 14 was a generalization of the previously described embodiment, in which the rejected bills were always sent to a fixed output tray, namely tray 22 ("Zurückweis-Stapeleinheit"), and that the passage showed that the user had the choice to which output receptacle bills whose denomination had not been determined were sent.
- 4.2.4 It is the established practice of the boards of appeal that for a finding of lack of novelty it is necessary that the invention be **directly and unambiguously derivable** from the prior art. This is however not the case with the disclosure of document E2. The statement in this document that the selected bills can be sent to one output tray, the rejected bills to a second and the remaining bills to a third is not an unambiguous

disclosure that the user had the choice to freely select the output tray to which the reject bills were sent. The board agrees with the appellant proprietor that care should be taken not to read into a prior art document something which becomes apparent only when the later disclosure of the patent is known, ie a hindsight reading of the prior art. The wording used in the selected paragraph of document E2 is very vague and refers to the output receptacles in a general manner. A direct and unambiguous disclosure of features (f) and (g) of claim 1 is, however, missing.

4.2.5 Moreover, the remaining disclosure of document E2 contradicts the respondent's interpretation of the passage on page 14, as the selection of the denominations sent to the upper and lower trays is done by keying in their values on the keyboard 76 of the routing interface (page 3, lines 56 to 59; Figure 3). However, a selection of the tray to which the rejected bills are sent is not provided for in the routing interface and these bills are consistently sent to the same tray, ie reject tray 22 (Table II).

4.2.6 In the board's judgment, document E2 does not disclose a routing interface permitting the user to direct bills whose denomination have not been determined to any one or any group of the plurality of output receptacles.

4.3 *Document E3*

4.3.1 Opponent respondent II argued that document E3 stated the need of a free bill stacking function in the conventional currency sorting machines and disclosed a machine which allowed easy changing of the stacking

- unit in which the bills where placed (column 1, lines 40 to 54).
- 4.3.2 The appellant proprietor pointed out that this document explicitly disclosed that undetermined bills where always directed to the bill rejection port 4 and that the statement in the general introduction referred only to the stacking units 15a to 15d in which the identified bills were sorted (column 3, lines 59 to 62; column 8, lines 54 to 56).
- 4.3.3 The board agrees with the appellant. Although the machine disclosed in document E3 has a routing interface which easily allows to direct the identified bills to any of the stacking units 15a to 15d, the unidentified bills are consistently delivered into the rejection port 4 and no redirection of these bills is provided (column 8, lines 13 to 56; Figures 4, 5 and 9A).
- 4.3.4 In the board's judgment, document E3 does not disclose a routing interface permitting the user to direct bill whose denomination have not been determined to any one or any group of the plurality of output receptacles.
- 4.4 The method of operating a currency evaluation device of claim 18 comprises features (e) and (f) which correspond closely to features (f) and (g) of the currency evaluation device of claim 1, namely that it is the user which through the routing interface instructs the device to direct undetermined bills to any one or any group of the plurality of output receptacles. Consequently, the reasons for the finding

of novelty of the device of claim 1 apply equally to the method of claim 18.

4.5 The board therefore judges that the subject-matter of each of claims 1 and 18 is new.

5. *Main request - Inventive step (Article 56 EPC 1973)*

5.1 The respondent opponents argued that the currency evaluation device of claim 1 was a straightforward modification of the conventional devices disclosed in documents D1, E2, E3 or by the prior use D3, since these conventional devices allowed the user to choose the output tray to which specific kinds of bills were sent. It was an obvious step to take to extend this choice to unidentified bills, a choice which in the case of the devices of D3 was manifestly already available to the skilled engineer.

5.2 The appellant proprietor argued that the flexibility of the devices according to D3 was not known to the public, but only to the engineers setting up the machine, and that the prior art documents did not suggest the claimed feature that the user was free to select via the routing interface where the undetermined bills were sent. The objective technical problem addressed by the present invention was thus to provide a currency sorting device having a more flexible and customizable input/output interface than was available in state of the art devices ([0003] of the published patent).

5.3 In the above analysis of novelty the board found that the devices according to D3 differed from the claimed ones in that the redirection function was not available

to the user, but was restricted to the engineer servicing or setting up the machine, and that the routing interface of the devices of documents E2 and E3 did not allow the user to direct undetermined bills to a chosen output tray. The disclosure of document D1 remains to be assessed and this will be done now.

5.4 *Document D1*

- 5.4.1 This document discloses a coin or bill sorting apparatus. It addresses the problem that arises in sorting currency of different denominations when the currency to be sorted comprises a large proportion of notes or coins of one specific denomination, since the sorting has to be stopped when the box accommodating the specific denomination becomes full, thereby preventing efficient sorting of the coins or bills (column 1, lines 34 to 64). This problem is solved by providing a larger number of accommodation boxes than the number of denominations to be sorted and by programming the apparatus so that when a specific box reaches a given level, the denomination sorted therein is automatically directed to another, still empty box (column 2, lines 30 to 65 and column 31, lines 4 to 22).
- 5.4.2 D1 further discloses a so called second sorting mode in which the damage level of the coins is determined and the coins are sorted into one of the boxes 31 to 35 according to their damage level. Coins with a damage level higher than a predetermined level are directed into box 36, i.e. the last in the line of boxes (column 10, lines 18 to 39; Figure 1).

- 5.4.3 Similarly, when sorting bills the unacceptable bill collecting box 140 receives the unacceptable bills, e.g. counterfeit bills or foreign bills, while the remaining accommodation boxes 141 to 146 receive the sorted acceptable bills and when full, automatically redirect a specific denomination to a still empty box (column 29, lines 58 to 65). In a manner analogous to the second coin sorting mode, bills can also be sorted out according to their damage level (column 31, lines 13 to 16).
- 5.4.4 In the board's judgment, document D1 does not, however, disclose a routing interface which allows the user to direct bills whose denomination could not be determined to a chosen output receptacle.
- 5.5 The respondent opponents relied on a passage in D1 which states that in the second sorting mode damaged bills could be accommodated in either the unacceptable bill collecting box 140 or in one of the first to fifth bill accommodating boxes 141 to 145 and undamaged bills of a specific denomination could be selectively accommodated in box 146 (column 33, lines 59 to 68). Since damaged bills were, according to the opposed patent ([0068]), bills whose denomination could also not be determined, document D1 suggested to the skilled person to handle all undetermined bills in the same manner as damaged bills.
- 5.6 The board does not share this view. In documents D1, E2 and E3 the "no calls", i.e. bills whose denomination could not be determined, were consistently handled in a special way and directed to a special output receptacle separated from the ones in which the identified

currency was sorted. This is also true in the case of the devices according to D3 in which special care was taken of hiding the redirection function from the user and in which this function was made available only to the skilled engineer. Probably security concerns directed the makers of these machines to do so, as this reduced the risk that unidentified bills, which could be counterfeits, be inadvertently reused and not properly sorted out. A special collecting pocket was thus foreseen for these bills and located separately from the other output receptacles so that any confusion by the operator could be reduced or avoided.

- 5.7 The devices according to claim 1 of the patent allow a greater flexibility than the conventional ones in that they allow the user to direct all kind of bills and even the undetermined bills to the output pocket of his choice. The technical means necessary for doing so were available to the skilled person, an engineer developing currency evaluation devices, as illustrated by the redirecting means provided for other kinds of bills disclosed in the prior art. It has to be remembered, however, that the availability to the public of document D3e (ie the engineers diagnostic manual) has not been proven and that, therefore, the skilled person was not aware of the functionality of the prior art machines according to D3. The board concludes for these reasons that although the skilled person **could** have carried out the invention, he **would** not have done so because of promptings in the prior art (the so-called "could-would approach"; Case law of the BoA of the EPO, 5th Ed., I.D.5).

5.8 As mentioned under point 4.4, the method of claim 18 comprises features (e) and (f) which correspond to features (f) and (g) of claim 1. It is therefore the board's judgment that the currency evaluation device of claim 1 and the method of operating a currency evaluation device of claim 18 involve an inventive step in the sense of Article 56 EPC 1973.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The case is remitted to the department of the first instance with the order to maintain the patent on the basis of the main request submitted during oral proceedings before the opposition division on 22 November 2005.

Registrar

Chair

S. Sánchez Chiquero

E. Wolff