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**D E C I S I O N**  
**of 31 March 2004**

**Case Number:** T 0887/01 - 3.5.2

**Application Number:** 94201356.6

**Publication Number:** 0615213

**IPC:** G07B 17/02

**Language of the proceedings:** EN

**Title of invention:**

A process of high speed handling of mail in a mailing machine

**Patentee:**

PITNEY BOWES INC.

**Opponent:**

Francotyp-Postalia Aktiengesellschaft & Co. KG  
Société SECAP

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54, 56

**Keyword:**

"Novelty and inventive step - after amendment (yes)"

**Decisions cited:**

-

**Catchword:**

-



Case Number: T 0887/01 - 3.5.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.5.2**  
**of 31 March 2004**

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**Decision under appeal:** Interlocutory decision of the Opposition  
Division of the European Patent Office posted  
18 May 2001 concerning maintenance of European  
patent No. 0615213 in amended form.

**Composition of the Board:**

**Chairman:** W. J. L. Wheeler  
**Members:** J.-M. Cannard  
P. Mühlens

## Summary of Facts and Submissions

I. Opponent 01 and the proprietor appealed against the decision of the opposition division concerning the maintenance of European patent No. 0 615 213 in amended form in accordance with the proprietor's second auxiliary request filed on 25 April 2001 during oral proceedings before the opposition division.

II. Prior art documents:

FD1: US-A-3 877 531,

FD2: GB-A-2 195 312,

FD3: EP-A-0 227 998,

FD4: US-A-4 034 669,

FD5: EP-A-0 225 288,

SD1: FR-A-2 388 352, and

SD4: US-A-4 030 607,

considered during the proceedings before the opposition division remain relevant to the present appeal.

III. Claim 1 filed on 31 March 2004 during oral proceedings before the Board of appeal reads as follows:

"A process of high speed handling of mail in a mailing machine capable of processing mixed mail of varying thickness and size, said process including at least the

functions of transporting each mailpiece to a station (17,19,21,23,25,27,35) and printing indicia on the mailpiece, said process including at least two user-selectable operating modes including a first non-weigh mode and a second weigh mode wherein each mailpiece is weighed and the printed indicia reflects the mailpiece weight, characterised by said process further including controlling the timing of said functions performed on each mailpiece in accordance with the mode selected by the user and in accordance with the thickness or size of the mailpiece."

Claims 2 to 4 are dependent on claim 1.

IV. The arguments of the appellant opponent 01 can be summarized as follows:

Document FD4 (which had the same content as FD1) disclosed a mailing machine for handling mixed mail. This machine could be operated in a non-weigh mode and in a weigh mode which both included the functions of transporting a mailpiece and printing indicia on it. According to Figure 4 of FD4, the timing of these functions was controlled in accordance with their thickness because thick pieces were ejected earlier than thin pieces. The subject-matter of claim 1, which did not specify a measurement of the thickness of the mailpieces, was not novel, or at least did not involve an inventive step in view of FD4.

A transport device for use in a mailing machine in which pieces of mixed mail were handled or extracted in accordance with their thickness or size was disclosed in documents FD5, SD4 and FD3. The process according to

claim 1 did not involve an inventive step particularly in view of the combination of the teachings of FD4 and FD5 which would result in a process having a timing of transporting and printing functions controlled in accordance with the thickness of the mailpieces.

- V. The arguments of the appellant proprietor can be summarized as follows:

The process according to claim 1 comprised a step of controlling the timing of transporting a mailpiece and printing indicia on it in accordance with its thickness or size both in a non-weigh mode and in a weigh mode. This controlling step implied at least a rough measurement of the thickness or size of the mailpieces good enough for controlling the timing. Neither a measurement of the thickness of the mailpieces, nor a control of the timing of the functions performed on the mailpieces when the machine was operated in the non-weigh mode, was performed in the mailing machine disclosed in FD4. In particular the fact that the thinnest envelopes were ejected later than the thickest ones in FD4 did not imply a control of the timing of transporting the pieces in accordance with their thickness. An objective of FD4 was to keep the processing time of the mailpieces constant. The subject-matter of claim 1 was novel and involved an inventive step with respect to FD4.

FD5 and SD4 both merely related to an extracting device for sorting mailpieces in accordance with their thickness or size and did not disclosed a step of controlling the timing of the functions performed on the mailpieces in accordance with their thickness or

size. There was no obvious reasons for the skilled person starting from FD4 to consider the teachings of these documents.

VI. The appellant (opponent 01) requested that the patent be revoked.

VII. The appellant (patentee) requested that the patent be maintained in amended form in the following version:

claims 1 to 4 filed in the oral proceedings;

description pages 2, 3 and 7 filed in the oral proceedings, pages 4 to 6 and 8 to 13 of the patent specification;

drawings, Figures 1 to 12 of the patent specification.

VIII. Opponent 02 withdraw its opposition (letter dated 30 November 2001).

### **Reasons for the Decision**

1. The appeal is admissible.
2. Present claim 1 differs in substance from claim 1 as granted in that the feature "controlling the timing of functions performed on each mailpiece" has been restricted to "controlling the timing of said functions performed on each mailpiece". The Board is satisfied that present claim 1 satisfies the requirements of Article 84 EPC and does not contravene Article 123(2) or (3) EPC.

*Interpretation of claim 1*

3. The proprietor submitted that the process of claim 1 implicitly comprises measuring the thickness or size of each mailpiece, because the timing of transporting and printing functions performed on each mailpiece is controlled in accordance with its own thickness or size. The timing of said functions is also controlled according to which one of a first (non-weigh) and a second (weigh) mode has been selected. The Board shares this view for the following reasons.

3.1 The mixed mail processed according to claim 1 may contain mailpieces of **varying** thickness and size because the mailing machine is stated to be capable of processing mixed mail. At least a rough measurement of the value of the thickness or size of each mailpiece is required for controlling the timing of the functions of transporting and printing indicia on the mailpiece in accordance with its thickness or size as recited in claim 1. Moreover, the non-weigh mode and the weigh mode disclosed in the patent in suit both comprise a step of measuring the thickness of the mailpieces for controlling the timing of the functions performed on them and support this interpretation of claim 1 (Figure 2, 5; page 3, line 37 to page 4, line 12; page 9, lines 36 to 38; page 10, lines 29 to 34 and 55 to 58).

3.2 Claim 1 specifies two operating modes, namely a first non-weigh mode and a second weigh mode, depending on whether the weight of a mailpiece has to be determined or not. But an operating mode in which the timing of a

function is controlled in accordance with the measured weight of the mailpieces is not specified in claim 1. Nor is it supported by the description of the patent in suit which nowhere discloses such an operating mode. Claim 1 thus should be construed as relating to a process having a first and a second operating mode which both include a step of controlling the timing of the specified functions performed on each mailpiece in accordance with the measured thickness or size of that mailpiece.

*Novelty*

4. Document FD4 discloses a method for processing mixed mail of varying thickness and size (column 2, lines 50 to 52; column 7, lines 3 to 19) which includes the functions of transporting each mailpiece to a station (Figure 1; column 5, line 42 to column 6, line 31) and printing indicia on the mailpiece (postage meter station 28). The method according to FD4 includes two user-selectable operating modes including a first non-weigh mode (for bulk mail) and a second weigh mode wherein each mailpiece is weighed and the printed indicia reflects the mail piece weight (column 6, lines 35 to 40). However, a process of handling mixed mail according to the features recited in the characterizing part of claim 1 is not disclosed in FD4.
- 4.1 Measuring the thickness or size of a mail piece is not disclosed in FD4. Nor is there any disclosure that the thickness or size of a mailpiece may be derived from a measurement of its weight.



4.2 The opponent argued that a control of the timing of the function of transporting a mailpiece was implicitly disclosed in FD4 because at the end of the weighing operation the thinnest envelopes are ejected 0.050 seconds later than a ½ inch thick letter (Figure 4; column 11, lines 51 to 55). However, the weighing and ejection operation is controlled by the breaking of the light to the detector 59 by the incoming envelope and the difference in the time of initiation of ejection is simply a consequence of the way in which the ejection mechanism operates for envelopes of different thicknesses (column 12, lines 1 to 9). There is no indication in FD4 that the ejection mechanism is controlled in accordance with the thickness of a mailpiece. On the contrary, FD4 teaches that "the sequence of weighing and ejecting must be uniform despite variations in the length of the envelopes" (column 11, lines 21 to 23) and "all pieces of mail irregardless of their weight, be afforded the same weighing time need for the heaviest letter" (column 11, lines 26 to 28).

4.3 Figure 4 is a timing diagram showing the timing sequence of the stopping, weighing and ejecting operations when handling mixed mail from the pre-scale scale transfer station 18 through the post-scale transfer station 21 for the weigh mode (column 11, lines 6 to 37) and does not concern the non-weigh mode (bulk mode) in which bulk mail is run through the machine without having to weigh and meter the letters. FD4 thus does not disclose a step of controlling the timing of the functions of transporting each mail piece and printing indicia on it in accordance with its thickness or size when the non-weigh mode is selected.

4.4 Summarising, FD4 does not disclose a control of the timing of the functions of transporting each mailpiece and printing indicia on it in accordance with its thickness or size. The same conclusions apply to document FD1 whose disclosure is similar to that of FD4.

5. Having regard to document FD2, which relates to a process for handling mixed mail, the opposition division considered in the decision under appeal that "the only novel aspect of claim 1 (as maintained in the opposition proceedings) over the disclosure of FD2 resides in that the timing of mail processing functions performed on each mail piece is adjusted in accordance with the thickness or size of the mail piece" (point 25 of the decision). In the view of the Board, which was not disputed by the opponent, this consideration applies *mutatis mutandis* to present claim 1. The other cited documents are less relevant. Therefore, the opponent has not shown that the process according to claim 1 lacks novelty in view of the cited prior art.

*Inventive step*

6. Starting from FD4 the objective problem addressed by the present invention can be seen as providing a process for processing mixed mail of varying thickness and size, as fast as possible, while applying a quality postage indicia. This problem corresponds to the problem mentioned in the patent in suit (page 2, lines 28 to 30).

- 6.1 The problem is solved by controlling the timing of the functions of transporting each mail piece to a station and printing indicia on the mail piece as recited in the characterizing part of claim 1.
7. According to the disclosure of FD4, "various sizes and weights of letters will create difficulties in sequencing of the various mail handling operations" and "with mixed mail, it is not easy to provide a smooth flow of mixed mail through a mailing machine" (column 11, lines 9 to 13); "thicker letters must not cause jamming" (column 11, line 21). To cope with these difficulties, an objective of the mailing machine of FD4 is to provide a constant processing time for the various envelopes as this appears from the disclosure of FD4 as a whole which states that "the sequence of weighing and ejecting must be uniform despite variations in the length of the envelopes" (column 11, lines 21 to 23), "all pieces of mail irregardless of their weight, be afforded the same weighing time need for the heaviest letter" (column 11, lines 26 to 28) and that "the initial time of transferring, stopping, weighing, and ejecting a letter through stations 18, 20 and 21, is approximately 0.5 seconds" (column 11, lines 63 to 66). Therefore, the skilled person aware of FD4 and faced with the problem addressed by the present invention would not find in FD4 any suggestion for controlling the timing of the transport and print functions in accordance with the thickness or size of the mailpieces.
8. Document FD5 relates to an apparatus for monitoring the thickness of an object which is used in connection with mail extraction equipment, and more specifically with

an envelope sorting apparatus to pass the envelopes for further processing or divert them from the normal processing stream in accordance with their thickness (column 1, lines 5 to 8; column 3, lines 9 to 20; column 5, lines 11 to 20; column 6, lines 61 to 64; Figure 1). However, FD5 is not concerned with the problem of increasing the speed of handling mixed mail in a mailing machine. FD5 does not suggest controlling the timing of the functions of transporting each mailpiece and printing indicia on it in accordance with the thickness of the mailpiece as recited in claim 1. The skilled person, aware of FD4, thus would have no reason to consider the teaching of FD5 to solve the technical problem addressed by the invention, nor would he find there the claimed solution to this problem.

9. Neither document SD4 nor document FD3 suggests a step of controlling the timing of the functions of transporting a mailpiece and printing indicia on it in accordance with its thickness or size in order to speed up the handling of mixed mail in a mailing machine. SD4 merely relates to a flat-article separating apparatus for an automatic mail handling system according to which a mailpiece is directed into a regular processing route (C) or into an ejecting route (D) in accordance with the thickness or size of the mail piece (Figure 1: thickness detector (13) and length detector (14)). According to an embodiment of document FD3 (Figure 6A; page 15, line 11 to page 16, line 11; claim 19), the thickness and size of a mailpiece, among other parameters, are only used to check equipment-specific variations (for instance variations in transport operations), to divert letters when the distance

between them is too small, or to delay the time at which a letter leaves a switch.

10. Accordingly, the arguments of the opponent 01 have not convinced the Board that the subject-matter of claim 1 was not novel or was obvious to the person skilled in the art at the priority date of the patent. The Board concludes that the subject-matter of claim 1 is novel and involves an inventive step within the meaning of Articles 54 and 56 EPC.
11. In the Board's judgement, taking into account the amendments made by the proprietor, the patent in suit and the invention to which it relates satisfy the requirements of the Convention.

**Order**

**For these reasons it is decided that:**

1. The decision under appeal is set aside.
2. The case is remitted to the first instance with the order to maintain the patent in amended form in the following version:
  - claims 1 to 4 filed in the oral proceedings;
  - description pages 2, 3 and 7 filed in the oral proceedings, pages 4 to 6 and 8 to 13 of the patent specification;
  - drawings, Figures 1 to 12 of the patent specification.

The Registrar:

The Chairman:

D. Sauter

W. J. L. Wheeler