

Internal distribution code:

- (A) Publication in OJ
(B) To Chairmen and Members
(C) To Chairmen

D E C I S I O N
of 6 December 1996

Case Number: T 0087/94 - 3.4.1

Application Number: 83112364.1

Publication Number: 0111322

IPC: G07B 17/02

Language of the proceedings: EN

Title of invention:
Electronic mailing machine

Patentee:
PITNEY BOWES, INC.

Opponent:
Francotyp-Postalia Aktiengesellschaft & Co.

Headword:
-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step - (yes, after amendment)"

Decisions cited:
T 0056/87

Catchword:
-



Case Number: T 0087/94 - 3.4.1

D E C I S I O N
of the Technical Board of Appeal 3.4.1
of 6 December 1996

Appellant:
(Opponent)

Francotyp-Postalia Aktiengesellschaft & Co.
Triftweg 21-26
D-16547 Birkenwerder (DE)

Representative:

Thoenes, Dieter, Dr.
Schaumburg, Thoenes & Thurn
Mauerkircherstrasse 31
D-81634 München (DE)

Respondent:
(Proprietor of the patent)

PITNEY BOWES, INC.
One Elmcroft
Stamford
Connecticut 06926-0790 (US)

Representative:

Avery, Stephen John
Lehn, Werner, Dipl. -Ing.
Hoffmann, Eitle & Partner
Patentanwälte
Postfach 81 04 20
D-81904 München (DE)

Decision under appeal:

Interlocutory decision of the Opposition Division
of the European Patent Office dated
30 November 1993 concerning maintenance of
European patent No. 0 111 322 in amended form.

Composition of the Board:

Chairman: G. D. Paterson
Members: Y. J. F. Van Henden
R. K. Shukla

Summary of Facts and Submissions

I. European patent No. 0 111 322 comprising 23 claims was granted to the Respondents.

II. Claim 1 of that patent reads:

"An electronic mailing machine (30) comprising: a housing (32, 46); a slot (36) located within said housing; a microprocessor (448) received within said housing; means (54) for inputting information to said microprocessor; a movable platen (222) located within said slot; sensing means (442, 446) in electrical connection with said microprocessor for sensing the presence of an envelope on said platen; a print head (122) spaced from and addressing said platen (222); a single revolution clutch (100) supported within said housing; drive means connected to said clutch for moving said platen (222) toward and away from said print head (122); means connected to said drive means and to said print head for moving said print head (122) away from said platen (222) after said platen (222) has been driven toward and away from said print head (122) and for moving said print head (122) into said slot (36) into printing contact with said platen (222) when said platen (222) is moved toward said print head (122); a drive motor (82) supported by said housing and in electrical connection with said microprocessor (448); means for engaging said clutch (100) with said motor (82) upon said sensing means (442, 446) being actuated; and signalling means (291, 293) for signalling completion of a printing cycle, whereby upon an envelope being inserted into said slot (36) said sensing means (442, 446) will be actuated and will send a signal to said microprocessor (448) indicating the presence of an envelope and said microprocessor (448) will send a signal to said clutch engaging means to

engage said clutch with said motor thereby actuating said clutch and providing drive to said platen moving means, and upon completion of said printing cycle said signalling means (291, 293) is arranged to send a signal to said microprocessor to cause the microprocessor to account for postage printed".

The remaining claims 2 to 23 of the European patent are appended to Claim 1.

III. An opposition to the European patent was filed on the ground that, having regard to the state of the art disclosed in the documents

D1: US-A-3 978 457;
D2: US-A-3 693 543;
D3: US-A-2 152 204;
D4': DE-A-2 501 038 (later corrected to
D4: DE-A-2 501 035) and
D5: US-A-4 246 643,

its subject-matter could not be credited with an inventive step within the meaning of Article 56 EPC.

IV. The Opposition Division maintained the patent in amended form on the basis of a new Claim 1 filed during oral proceedings held before it on 11 November 1993.

V. The Opponents lodged an appeal against the decision of the Opposition Division.

In a letter dated 14 April 1994 and completing their Statement of Grounds of appeal, the Appellants also referred to an additional document

D6: CH-A-153 973.

- VI. In a communication annexed to a summons to attend oral proceedings, the Rapporteur of the Board took the preliminary view that Claim 1 as amended during the oral proceedings of 11 November 1993 extended the protection conferred by the European patent Article 123(3) EPC.
- VII. In a letter dated 6 November 1996, the Respondents requested that the European patent be maintained with Claim 1 as granted or, subsidiarily, on the basis of a new Claim 1 according to a first or a second auxiliary request filed with said letter.
- VIII. During oral proceedings held on 6 December 1996, the Respondents withdrew their former requests and filed a new version of Claim 1 forming the basis of a single request.

With respect to Claim 1 of the European patent as granted, this new version differs in that the definition of the means for moving the print head reads

"means connected to said drive means and to said print head for moving said print head (122) away from said platen (222) after said platen (222) has been driven toward and away from said print head (122) and for completing the movement of said print head (122) away from said platen (222) while said platen continues to be driven away from said print head, and also for moving said print head (122) from a raised position in which it cannot be contacted to obtain an unauthorised stamp or impression into said slot (36) into printing contact with said platen (222) when said platen (222) is moved toward said print head (122)".

IX. The Appellants requested that the decision under appeal be set aside and that the patent in suit be revoked. In support of these requests, the Appellants argued in substance as follows:

The invention aims at providing a compensating mechanism to allow a mailing machine to accommodate envelopes of different thicknesses while maintaining a constant biasing force, and at preventing unauthorised franking. These purposes would be achieved by the provision of the movable platen (222) and by the respective movements of the print head (122) and said platen. Fraud prevention, in particular, would result from the upward movement of the print head after an envelope has been franked. Accommodating envelopes of different thickness, however, is achieved by the provision of the springs (204, 210), as explained in column 16 of the European patent, and as actually known from document (D2). Besides, the provision of movable print heads in mailing machines is known from documents (D3) and (D5). According to the latter, once the print head has been moving upwards, it can no longer be moved downwards before it has reached its upper position, where no unauthorised franking can be carried out.

Starting from the state of the art disclosed in document (D1), a skilled person was thus not required to display inventive talent to solve simultaneously the problem of accommodating envelopes of different thicknesses and that of preventing unauthorised franking. Furthermore, the provision of the features known from the other documents does not achieve any synergetic effect whatsoever. In particular, synchronising the respective movements of the print head and the platen is of obvious necessity for

printing. As a matter of fact, in the mailing machine described in document (D6), the downward movement of the apertured plate (14) achieves the same effect as the upward movement of the print head in a machine embodying the present invention, whereas the spring (13) cares for an approximately constant biasing for envelopes of various thicknesses.

- X. The Respondents requested that the appeal be dismissed and that the patent be maintained in accordance with the main request filed during the oral proceedings of 6 December 1996. Their argumentation may be summarised as follows:

Document (D1) shows a conventional printer having a rotating drum. Document (D2) shows a printer with a movable platen to apply uniform printing pressure regardless of the thickness of the mail piece. This platen is able to rise for bringing an envelope into printing contact with postal indicia, whereupon a laterally moved wedge imparts printing pressure to the envelope. However, this mechanism does not prevent unauthorised printing, since the printing die is accessible through the slot. According to document (D3), a printing head carrying postal indicia and mounted on a rotating shaft is biased in a retracted position by tension springs. When printing is to occur, the print head is moved radially, so that the postage and date stamps are impressed upon the mail piece as it passes thereunder through a slot. The mechanism of document (D3), however, does not provide uniform printing pressure irrespective of the thickness of the mail piece. In a machine according to document (D6), the print head is not movable toward and away from the platen supporting the envelope, and the apertured

plate (14) is only provided to prevent adherence of the letters on the printing plate. In fact, owing to the size of the aperture and the small vertical distance between the print head and plate (14), the alleged security improvement would not be achieved.

In summary, none of the cited documents suggests to move both the printing head and the platen. A skilled person starting from the disclosure in document (D1) would not replace the rotating drum printing mechanism described there by any of the mechanisms known from documents (D2) or (D6). Security problems would indeed arise and, in turn, no solution to these problems could be given by document (D3), since the latter relates to a rotating printing mechanism, i.e. the type of mechanism which has just been abandoned. Therefore, the appeal should be dismissed.

- XI. After deliberation by the Board, the Chairman gave the decision that the impugned decision is set aside, and that the case is remitted to the first instance with an order to maintain the patent on the basis of the single request filed during the oral proceedings.

Reasons for the Decision

1. *Interpretation of the wording of claim 1*

According to claim 1 as granted and as submitted at the oral proceedings, means are provided for "moving said print head (122) away from said platen (222) after said platen (222) has been driven toward and away from said print head". In the Board's view, this wording of the claim has to be interpreted in the light of the description and Figure 25 of the application as filed, showing various activities and their interrelationship

during a full printing cycle. In particular, from the charts in Figure 25 showing movements of the print wheel and the platen cam, it is evident that the print wheel is moving away from the platen after the latter, having completed its movement towards the print head, has also started moving away from the print head. In other words, there is a component of the print head movement away from the platen which follows the movement of the platen towards the print head and a **portion** of the movement of the platen away from the print head.

2. *Amendments*

In relation to claim 1 as granted, amended claim 1 under consideration requires that means connected to said drive means and to said print head

(i) are for completing the movement of said print head away from said platen (222) while said platen continues to be driven away from said print head, and

(ii) are also for moving said print head (122) from a raised position in which it cannot be contacted to obtain an unauthorised stamp or impression into said slot.

With regard to amendment (i), it follows from Figure 25 of the application as filed, showing movements of the print wheel and platen cam during a full printing cycle that the print head movement away from the platen is completed before the movement of the platen. Similarly it follows from the description on page 28, line 6 to page 29, line 4 of the application as filed that in its

raised position, the print head cannot be contacted to obtain an unauthorised stamp. Thus, the above amendments do not extend beyond the content of the application as filed, so that Article 123(2) is complied with.

Moreover, claim 1 as granted included within its scope the possibility that the print head movement away from the platen continued after the completion of the movement of the platen, the possibility that the print head movement and the platen movement were completed simultaneously and the possibility that the print head movement away from the platen was completed before that of the platen away from the print head, so that it is evident that the amendment (i) above restricts the scope of the claim and the amended claim 1 complies with the requirement of Article 123(3) EPC. Similarly, it is clear that the amendment (ii) restricts the scope of the claim in relation to the scope of claim 1 as granted.

In the Board's judgment, therefore, Claim 1 according to the respondents single request is not objectionable under Article 123(2) and (3) EPC.

3. The only issue to be considered is therefore that of inventive step.

3.1 *State of the art*

Using the terminology of Claim 1, document (D1) discloses an electronic mailing machine - see the Title -, which mailing machine comprises:

- a housing (100) - see Figure 1b and column 7, lines 48 and 49;

- a slot (105) located within said housing - see column 7, lines 56 to 58;
- a microprocessor received within the housing (100)
- see Figure 1a; column 7, lines 49 to 52;
column 10, lines 47 to 57;
- means, namely the keyboard (34), for inputting information to said microprocessor - see column 7, lines 52 to 54, and column 10, lines 42 and 43;
- optionally, sensing means in electrical connection with the microprocessor for sensing the presence of an envelope, whereby upon an envelope being inserted into the slot (105), said sensing means will send a signal to said microprocessor indicating the presence of an envelope - see column 7, lines 62 to 65, and column 14, lines 15 and 16;
- a print head, namely the drum (42) - see column 11, lines 14 to 18;
- a drive motor (50) supported by the housing (100) and in electrical connection with the microprocessor - see column 11, lines 14 to 18 - and
- means (189) for signalling the completion of a printing cycle and arranged to send a signal to the microprocessor to cause said microprocessor to account for postage printed - see column 20, lines 25 to 37.

Finally, though not explicitly mentioned in document (D1), the presence of a platen located within the slot (105) may not be questioned, for otherwise envelopes inserted into said slot would not be backed and no correct impression of the postage data to be printed thereupon would be achieved.

3.2 In the Board's view, therefore, the subject-matter of Claim 1 is distinguished over the prior art disclosed in document (D1) in that:

- the print head (122) addressing the platen (222) is spaced from said platen;
- a single revolution clutch (100) supported within the housing (32, 46) and means for engaging said clutch with the drive motor (82) upon actuation of the sensing means (442, 446) are provided;
- drive means connected to the clutch (100) for moving the platen (222) toward and away from the print head (122) are provided, and in that
- means connected to said drive means are provided for moving the print head (122) from a raised position, in which it cannot be contacted to obtain an unauthorised stamp or impression, into the slot (36) into printing contact with the platen (222) when said platen is moved toward said print head, for moving the print head away from the platen (222) after said platen has been driven toward and away from said print head, and for completing the movement of the print head away from the platen while the latter continues to be driven away from said print head.

4. *Inventive step*

4.1 As was previously pointed out, document (D1) does not disclose any information as regards the platen necessarily provided for backing the envelopes while printing thereupon postage indicia. Therefore, taken alone, this document is not liable to lead the skilled person to a design in which variations of the distance between such a platen and a print head are envisaged. As a matter of fact, this is the less so as the mailing machine described in document (D1) comprises a printing drum in which print wheels are located, and as postage printing is achieved by rotating the drum.

4.2 Document (D2) admittedly relates to a franking machine in which a platen (15) supporting the envelope to be provided with postal marks is raised towards a printing die (10). The movement of a wedge-shaped member (43) located beneath the platen (15) causes a pressure to be applied to said platen for taking impression from an indicium plate (14) forming part of the die. Thereby, accommodation for envelopes of various thicknesses is achieved - see: Figure 1; column 1, lines 41 to 55; from line 61 of column 3 to line 5 of column 4; from column 7, line 47, to column 8, line 3.

In the device known from document (D2) unauthorised printing is prevented by the return of the inking arrangement (42, 73, 75) after completion of a printing operation - compare Figures 6 and 3. Therefore, document (D2) gives the skilled person no incitement to envisage the provision of means for moving downwardly the printing drum of a mailing machine of the kind described in document (D1). At the most, said person might consider the provision in the latter machine of

an upwardly movable platen in order to render it suitable for franking envelopes of various thicknesses. This, however, would not lead to the invention, according to which movements of both the platen (222) and the print head (122) in opposite directions take place.

4.3 Document (D3) relates to a mailing apparatus in which a print head (30) slidably mounted upon a disc (21) is urged downwards to impress postage data upon a letter as it passes thereunder - see: Figure 4; second column, lines 27 to 41; third column, lines 27 to 38. However, the measures proposed in that document to accommodate for envelopes of various thicknesses and to prevent unauthorised printing are quite different from those envisaged in accordance with the invention. In Figure 4, it can be seen that the shaft (79) of a feed roll (76) located beneath the print head (30) is resiliently urged upwards by means of a spring and that a dead roll (89) is mounted to float in slotted bearings (90), whereby accommodation for variations in thickness of the mail pieces is provided - see the third column, lines 62 to 67, and from the line 74 of that column, to the second line of the fourth column. In the Board's view, therefore, a skilled person seeking to improve a mailing machine of the kind described in document (D1) would not receive from document (D3) any incitement to move simultaneously and in opposite directions a platen bearing a letter and a print head. Such incitement cannot be gained from document (D5) either. The latter pertains indeed to a mailing machine comprising accessible printing means; postage is printed upon depression of a cover member (38) by the user and, in order to prevent fraud, the

registers of the microprocessor are repeatedly updated at predetermined time intervals if the user does not release said cover member. The duration of these intervals is not so long that an unscrupulous user would have time to switch packages upon which postage is being printed - see: Figure 1; column 7, lines 17 to 65; column 12, lines 24 to 35.

- 4.4 As regards document (D6), the Board accepts the Respondents' submission that the apertured plate (14) of the mailing apparatus described there is only provided to prevent adherence of printed letters. Nothing else is indeed stated in the description, whereas the drawing suggests that the aperture (14₁) of the plate would be too wide to prevent unauthorised printing.

Finally, document (D4) is not relevant to the present case for the franking device described there comprises an ink-jet printing arrangement. In such a device, the problem set to the invention does not arise.

- 4.5 In the Board's judgment, therefore, a skilled person starting from the state of the art disclosed in the documents (D1) to (D6) had to display inventiveness to arrive at the invention as presently claimed.
5. Therefore, Claim 1 as filed during the oral proceedings of 6 December 1996 is allowable - EPC, Article 52(1) in conjunction with Article 56.

Order

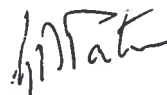
For these reasons it is decided that:

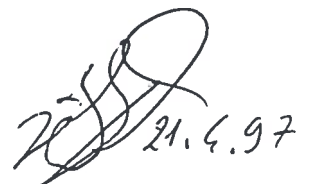
1. The decision of the Opposition Division is set aside.
2. The case is remitted to the first instance with an order to maintain the patent on the basis of the main request filed during the oral proceedings of 6 December 1996.

The Registrar:


M. Beer

The Chairman:


G. D. Paterson


21.4.97
Rly