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**Datasheet for the decision  
of 10 June 2010**

**Case Number:** T 1135/07 - 3.5.02

**Application Number:** 98106454.6

**Publication Number:** 0875863

**IPC:** G07B 17/02

**Language of the proceedings:** EN

**Title of invention:**

Electronic postage meter system having plural clock systems  
providing enhanced security

**Patentee:**

Pitney Bowes Inc.

**Opponent:**

Francotyp-Postalia GmbH

**Headword:**

-

**Relevant legal provisions:**

EPC Art. 54, 56

**Relevant legal provisions (EPC 1973):**

-

**Keyword:**

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

**Decisions cited:**

-

**Catchword:**

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Case Number: T 1135/07 - 3.5.02

**D E C I S I O N**  
of the Technical Board of Appeal 3.5.02  
of 10 June 2010

**Appellant:** Pitney Bowes Inc.  
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**Former party:** Francotyp-Postalia GmbH  
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**Representative:** Schaumburg, Thoenes, Thurn, Landskron, Eckert  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 11 May 2007  
revoking European patent No. 0875863 pursuant  
to Article 102(1) EPC 1973.

**Composition of the Board:**

**Chairman:** M. Ruggiu  
**Members:** J.-M. Cannard  
E. Lachacinski

## Summary of Facts and Submissions

I. The proprietor appealed against the decision of the opposition division revoking European Patent No. 0 875 863. The reasons given for the revocation were, *inter alia*, that the independent claims of the main request (i.e. the patent as granted), the first to third auxiliary requests filed with a letter dated 13 February 2007, and the fourth and fifth auxiliary requests filed during oral proceedings before the opposition division were not compliant with the requirements of Article 123(2) EPC and that the subject-matter of independent claims 1 and 7 of the main request was not new in the sense of Article 54 EPC.

II. The documents:

E1: EP-A-0 635 790, and

E2: US-A-5 487 096,

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

III. The respondent opponent withdrew its opposition with a letter dated 4 September 2009.

IV. In the statement of grounds of appeal filed with a letter dated 4 September 2007, the appellant proprietor had requested oral proceedings if the patent could not be maintained as originally granted. Following communications of the Board dated 22 March 2010 and 17 May 2010 respectively, the appellant proprietor, with a letter dated 19 May 2010, filed claims according to a new main request and amended pages of the description to

replace the main and first to third auxiliary requests then on file. The appellant also withdrew its request for oral proceedings on the basis that the new main request would be found allowable.

- V. The appellant proprietor requested in writing that the decision under appeal be set aside and that the patent be maintained in amended form in the following version:
- claims: 1 to 5 filed with letter of 19 May 2010;
  - description: page 2 with Insert A and page 3 filed with letter of 19 May 2010, pages 4 to 8 of the patent specification;
  - drawings: figures 1 to 7 of the patent specification.

- VI. Independent claims 1 and 4 filed with the letter dated 19 May 2010 read as follows:

"1. A value metering system employing a system clock time, comprising:

a micro controller (26) having a system time counter (33), said system time counter (33) measuring time from a first datum;

a secure clock module (48) having a real time clock (49), said real time clock measuring time from a second datum; and,

means for converting a time of said real time clock (49) from said second time datum to said first time datum and for storing said converted time of said real time clock into said system time counter (33) to provide a predetermined relationship between said system time

counter (33) and said secure clock module (48),  
characterized in that:

said secure clock module (48) further comprises an  
elapsed time counter (51), said real time clock (49)  
incrementing the time kept thereby regardless of whether  
external power is supplied to said value metering system  
and said elapsed time counter (51) incrementing a time  
kept thereby only when said external power is supplied  
to said value metering system, said value metering  
system further comprising:

means for comparing the time of said elapsed time  
counter (51) to the time of said real time clock (49)  
immediately after said external power is reapplied to  
the value metering system;

means for storing the time kept by said real time clock  
(49) in said elapsed time counter (51) after said  
comparison, only if the time of said real time clock (49)  
is greater than the time of said elapsed time counter  
(51); and

means for generating an error code and inhibiting  
operation of said value metering system if the time of  
said elapsed time counter (51) is greater than the time  
of said real time clock (49)."

"4. A method of providing a system clock time for a  
value metering system, said system clock time being  
measured from a first datum by a system time counter (33)  
of a micro controller (26), said method comprising the  
steps of:

providing a secure clock module (48) having a real time clock (49), said real time clock measuring time from a second datum;

converting a time of said real time clock (49) from said second datum to said first datum;

storing said converted time of said real time clock (49) into said system time counter (33) to provide a predetermined relationship between said system time counter (33) and said secure clock module (48);  
characterized by:

said secure clock module (48) having an elapsed time counter (51), said real time clock (49) incrementing the time kept thereby regardless of whether external power is supplied to said value metering system and said elapsed time counter (51) not incrementing a time kept thereby when said value metering system is powered down;

comparing the time of said real time clock (49) to the time of said elapsed time counter (51) when said value metering system is powered up;

storing the time of said real time clock (49) into said elapsed time counter (51) after said comparing step, only if the time of said real time clock (49) is greater than the time of said elapsed time counter (51); and

generating an error code and inhibiting operation of said value metering system if the time of said elapsed time counter (51) is greater than the time of said real time clock (49)."

Claims 2 and 3 and claim 5 are dependent on claim 1 and claim 4, respectively.

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

Claim 1 of the main request was derived from claim 1 of the granted patent by incorporating features of the granted dependent claims 3 and 5. Independent claim 4 of the main request was derived from independent claim 7 of the granted patent by incorporating features of granted dependent claim 9. Moreover, claims 1 and 4 of the main request took into account the observations made by the Board in its communications.

The subject-matter of independent claims 1 and 4 of the main request was new because these claims comprised the following new features which were not disclosed in document E1:

a) the secure clock module comprised an elapsed time counter, the real time clock incrementing the time kept thereby regardless of whether external power was supplied to the value metering system and the elapsed time counter incrementing a time kept thereby only when said external power was supplied to said value metering system;

b) the value metering system comprised means for comparing the time of said real time clock immediately after said external power was reapplied to the value metering system and means for generating an error code and inhibiting operation of said value metering system

if the time of said elapsed time counter was greater than the time of said real time clock.

Introducing the elapsed time counter of document E2 into the system of E1 would not lead to the claimed invention. Neither E1 nor E2 disclosed a comparison of the real time clock time with the time measured by an elapsed counter. The elapsed time counter disclosed in E2 had nothing to do with the expiration time of a licensed program. Hence, at least the introduction of the second feature into E1 could not be regarded as obvious. The two new features were linked with each other and could not be considered separately for the purpose of inventive step. Thus, the subject-matter of claims 1 and 4 involved an inventive step.

VIII. In its letter dated 25 January 2008, the former opponent had argued, *inter alia*, that claim 1 of the granted patent contravened Article 123(2) EPC because the application as originally filed contained no basis for generalising a system time counter (33) measuring time from January 1, 1992 and a real time clock (49) measuring time from January 1, 1970 to a system time counter (33) measuring time from a first datum and a real time clock (49) measuring time from a second datum.



## Reasons for the Decision

1. The appeal is admissible.

### *Admissibility of the amendments*

2. The Board is satisfied that the amendments made to the patent in suit satisfy the requirements of Article 84 EPC and do not contravene Article 123(2) and (3) EPC.
  - 2.1 Claim 1 of the present request is in substance based on the combination of claims 1, 3, 5 and 6 of the patent as granted with the added restrictions to means for converting a time and for storing said converted time which are such as "to provide a predetermined relationship between said system time counter (33) and said secure clock module (48)" and to means for storing the time kept by the real time clock "only if the time of said real time clock (49) is greater than the time of said elapsed time counter (51)".
  - 2.2 According to the opponent, claim 1 of the granted patent contravenes Article 123(2) EPC because the application as originally filed contains no basis for generalising a system time counter (33) measuring time from January 1, 1992 and a real time clock (49) measuring time from January 1, 1970 to a system time counter (33) measuring time from a first datum and a real time clock (49) measuring time from a second datum. However, claim 1 of the present request now is restricted to a first datum and a second datum which are such that the means for converting and storing provide "a predetermined relationship between said system time counter (33) and said secure clock module (48)", as specified in the

application as filed (see pages 5 and 6, bridging paragraph; claims 1 and 10). Accordingly, claim 1 of the present request does not extend beyond the content of the application as filed in this respect.

2.3 The opponent did not dispute during the opposition proceedings or the appeal proceedings that dependent claims 3, 5 and 6 of the granted patent satisfy the requirements of Article 123(2) EPC. Nor has the Board any reason to doubt that said granted claims are supported by the application as filed (see page 14, lines 21 to 29, page 17, lines 15 to 26 and figure 4). Moreover, figure 4 shows means for storing the time kept by the real time clock in the elapsed time counter "only if the time of said real time clock (49) is greater than the time of said elapsed time counter (51)". Thus, claim 1 meets the requirements of Article 123(2) EPC.

2.4 Independent claim 4, which is based on the combination of claims 7 and 9 as granted, relates to a method of providing a system clock time for a value metering system, whose steps correspond to the steps performed in the value metering system according to claim 1. Therefore, claim 4 meets the requirements of Article 123(2) EPC for the same reasons as claim 1. Dependent claims 2, 3 and 5 are identical to claims 2, 4 and 8 of the patent as granted, respectively.

2.5 The description of the patent in suit has been brought into conformity with the claims and acknowledges document E1.

*Novelty and inventive step*

3. Document E1 relates to a client/server based secure time keeping system for checking time-constrained licences (column 6, lines 38 to 53; column 8, lines 7 to 15). As checking time-constrained licences may be seen as a form of value metering, E1, which can be seen as the closest prior art, discloses a value metering system comprising all the features recited in the pre-characterising part of claim 1 according the present request (see E1, figures 1 and 2):

- a micro controller (CPU 104) having a system time counter (TOD clock 108), said system time counter measuring time from a first datum (column 5, lines 8 to 16; column 7, line 46 to column 8, line 1);

- a secure clock module 120 having a real time clock (TOD clock 126), said real time clock measuring time from a second datum (GMT or Coordinated Universal Time or some local offset from GMT) (column 5, lines 16 to 30 and lines 45 to 48); and,

- means for converting a time of said real time clock 126 from said second time datum to said first time datum and for storing said converted time of said real time clock into said system time counter 108 (see column 6, lines 22 to 38; column 6, line 54 to column 7, line 5). These means provide a predetermined relationship between said system time counter 108 and said secure clock module 126 at least because providing a predetermined relationship does not exclude a mere synchronisation of the clocks.

4. However, the system disclosed in E1 does not comprise an elapsed time counter and the features recited in the characterising part of claim 1 are not disclosed in E1. Thus, the subject-matter of claim 1 of the present request is new (Article 54 EPC).
  
5. Starting from E1 and having regard to the effects provided by the claimed invention, the objective technical problem can be seen as providing a secure clock which cannot be altered by the user or service personal. This is in accordance with the technical problem specified in the application as filed (page 4, lines 14 to 16) and in the corresponding passage of the patent specification. The solution to this problem is provided by the features recited in the characterising part of claim 1.
  
6. In the Board's judgement, the subject-matter of claim 1 of the present request involves an inventive step having regard to the cited prior art documents.
  
- 6.1 In E1, if the system time counter 108 is synchronised with the real time clock 126, an authenticated time indicator 218 is set to TRUE and the value in the system time counter is compared with the licencing criteria. Execution of a program which has a time-constrained licence is then prevented if the system time counter has a value which is greater than the expiring time of the licence (E1, column 6, lines 38 to 53; column 8, lines 21 to 34). Accordingly, the skilled person aware of E1 would have no obvious reason to envisage using an elapsed time counter E1 incrementing time as specified in claim 1. Nor would he consider means for comparing the time of a real time clock with the time of the

elapsed counter, or means for storing the time of the real time clock in the elapsed time counter and for generating an error code, when the criteria specified in claim 1 are met.

6.2 Document E2 relates to an integrated circuit including a real time clock (RTC), an elapsed time counter which measures the total number of seconds during which a system has been powered up and a cycle counter which measures the number of times a power cycle has occurred (column 2, lines 1 to 10). Thus, simply introducing the elapsed time of E2 into the system of E1 would not lead to the claimed invention.

7. As may be seen from the foregoing, the subject-matter of claim 1 of the present request is not obvious having regard to the prior art on file (Article 56 EPC). The same considerations apply to independent claim 4 which relates to a method of providing a system clock time for a value metering system which comprises all the steps performed in the value metering system according to claim 1, and to claims 2, 3 and 5 which are dependent on claims 1 and 4, respectively.

8. In the Board's judgement, taking into account the amendments according to the present request, the patent in suit and the invention to which it relates satisfy the requirements of the Convention (Article 101(3)(a) EPC).

9. Since the claims, description and drawings presently on file are considered acceptable, there is no need for oral proceedings.

## 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 first instance with the order to maintain the patent in amended form in the following version:
  - claims: 1 to 5 filed with letter of 19 May 2010;
  - description: page 2 with Insert A and page 3 filed with letter of 19 May 2010, pages 4 to 8 of the patent specification;
  - drawings: figures 1 to 7 of the patent specification.

The Registrar:

The Chairman:

U. Bultmann

M. Ruggiu