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D E C I S I O N
of 22 July 2005

Case Number: T 0661/03 - 3.5.2

Application Number: 92304809.4

Publication Number: 0516403

IPC: G07B 17/02

Language of the proceedings: EN

Title of invention:
Method of remote diagnostics for franking machines

Patentee:
Neopost Limited

Opponent:
Pitney Bowes Inc.

Headword:
-

Relevant legal provisions:
EPC Art. 56

Keyword:
"Inventive step - no"

Decisions cited:
-

Catchword:
-

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Case Number: T 0661/03 - 3.5.2

D E C I S I O N
of the Technical Board of Appeal 3.5.2
of 22 July 2005

Appellant 1: (Opponent)
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 29 April 2003 concerning maintenance of European patent No. 0516403 in amended form.**

Composition of the Board:

Chairman: F. Edlinger
Members: M. Ruggiu
E. Lachacinski

Summary of Facts and Submissions

I. The opponent and the proprietor filed appeals against the interlocutory decision of the opposition division concerning maintenance of European patent No. 0 516 403 in amended form.

II. A number of documents of the state of the art have been discussed during the appeal procedure. The proprietor has also filed a copy of the entry "history" from the Collins English Dictionary (undated). The only documents that are relevant for the present decision are:

D5: US-A-4 812 965, and
the entry "history" from the Collins English Dictionary.

III. Oral proceedings before the board took place on 6 July 2005.

The appellant 1 (opponent) requested that the decision under appeal be set aside and that the European patent No. 0 516 403 be revoked.

The appellant 2 (proprietor) requested that the patent be maintained unamended (main request), in the alternative that the appellant opponent's appeal be dismissed (auxiliary request).

After deliberation by the board, the chairman announced that the decision would be taken in writing.

IV. Claim 1 of the patent in suit as granted reads as follows:

"A method of remotely obtaining data from a franking machine in which data is stored in a memory (22) of the franking machine (10_1); the franking machine is periodically placed in communication with a remote central computer (20) and during said communication data is read from the memory (22) and transmitted to the remote central computer (20) characterised in that a fault code identifying a fault occurring during normal operation of the franking machine (10_1) in franking mail items is stored in the memory (22) upon occurrence of the fault to form a fault history of the franking machine; in that during each communication between the franking machine and the remote central computer (20) for remote recrediting of the franking machine the fault history stored in the memory (22) automatically is read out and transmitted to the remote re-crediting computer and is written to a fault history store (23); and further characterised by analysing said fault history stored in the fault history store (23) to provide an indication of impending faults."

Claims 2 to 10 are dependent on claim 1.

Claim 11 of the patent in suit as granted is an independent apparatus claim.

V. Claim 1 as approved by the opposition division reads as follows:

"A method of remotely obtaining data from a plurality of franking machines (10_1-10_n) in each of which data is stored in a memory (22); each franking machine is periodically placed in communication with a remote

central computer (20) for remotely recrediting the franking machine and during said communication data is read from the memory (22) and transmitted to the remote central computer (20); characterised in that: for each franking machine, a fault code identifying a fault occurring during normal operation of the franking machine in franking mail items is stored in the memory (22) upon occurrence of the fault to form a fault history of the franking machine, and during each communication between the franking machine and the remote central computer (20) for remote recrediting of the franking machine the fault history stored in the memory (22) automatically is read out and transmitted to the remote central computer and is written to a fault history store (23); and further characterised by analysing said fault history stored in the fault history store (23) to provide an indication of impending faults, and by means (24) responsive to the fault history establishing communication with at least one selected franking machine and in response to said analysis of the fault history stored in the fault history store utilising said communication with said means (24) to effect modification of operation of said at least one selected franking machine to enable continued modified operation of said at least one selected franking machine."

Claims 2 to 8 as approved by the opposition division are dependent on claim 1. Claim 9 is an independent apparatus claim.

VI. The arguments of the appellant opponent that are relevant to the present decision can be summarised as follows:

D5 mainly concerned tampering events, which could be regarded as faults because the word "fault" was very general and the way in which it was used in the patent in suit included tampering. In any case, the check of a control sum as described in D5 could clearly reveal a fault that was not due to tampering. The franking machine of D5 stored flags indicative of tampering events in a memory. In the patent in suit (see column 7, lines 39 and 40), a fault code could likewise be a flag. Whether a malfunction was caused by tampering or by simple component failure, the result was the same: a part no longer performed correctly. The distinction between tampering and other causes of failure was therefore purely artificial and the flags stored in the memory of the machine of D5 could be regarded as fault codes. D5 suggested storing various events detected by sensors in a memory of the franking machine. Since history did not necessarily imply chronology (cf. the Collins English Dictionary entry), the flags stored in the memory of the franking machine formed a fault history. A first embodiment described in D5 concerned a franking machine in communication with a central station comprising a computer. In this first embodiment, the fault history was sent to and stored in the central station computer. D5 indicated that this could happen simultaneously when remotely recrediting the franking machine. It was furthermore implicit in D5 that the fault history was subjected to some analysis. According to D5, the franking machine could be disabled as a consequence of the analysis. This was not different in the patent in suit, which at column 7, lines 51 to 54 envisaged inhibiting the operation of the machine for some kind of faults. Anyway, claim 1 of the patent in

suit as granted was sufficiently broad to cover disablement of the franking machine in response to the analysis. D5, at column 3, lines 9 to 15, envisaged replacing the meter of the franking machine in response to the analysis. A meter would be replaced only if the analysis had shown that it was unreliable, *i.e.* if the analysis indicated an impending fault. Replacement of the meter required that a service engineer be sent to inspect the machine. The patent in suit was similar in this respect, because at column 5, lines 28 to 33, and column 6, lines 16 to 23, it envisaged a visit by a service engineer. Thus, the subject-matter of claim 1 was anticipated by the prior art disclosed in D5.

Claim 1 as approved by the opposition division essentially differed from claim 1 as granted in that it specified a plurality of franking machines and that modification of operation of a selected franking machine was effected to enable continued modified operation of the selected franking machine. Claim 1 further specified establishing communication with the selected franking machine and utilising said communication to effect modification of operation of the franking machine. This did not exclude communication by means of a visit by a service engineer as foreseen in the patent in suit, in particular at column 5, lines 28 to 33. D5 disclosed disabling a franking machine in response to an analysis of the fault history, the machine being then physically inspected and modified to allow further operation. As the patent in suit contemplated using the same communication mode as in D5, the subject-matter of claim 1 as approved by the opposition division was anticipated by D5. Claim 1 as approved by the

opposition division was not restricted to an automatic modification of the operation of the franking machine. However, even if this were the case, it could not be inventive to do automatically what had been previously done manually.

VII. The arguments of the appellant proprietor that are relevant to the present decision can be summarised as follows:

The invention of the patent in suit was concerned with general faults. Claim 1 of the patent in suit as granted specified that a fault code identifying a fault occurring during normal operation of the franking machine in franking mail items was stored in the memory of the franking machine upon occurrence of the fault. A fault history was formed in this way. By contrast, document D5 related to the identification of tampering events. In particular, physical inspection was only performed in D5 to identify physical tampering events. When reading D5 without knowledge of the invention, it was not obvious to a skilled person to store a history of general faults. In particular, a check of a discrepancy between the registers of the franking machine, which was disclosed in D5 and had been considered by the opposition division as indicative of a general fault, was not performed before communication was established with the computer of the central station and was not a fault history stored in a memory of the franking machine. The setting of flags did not provide a history of events. In the system of D5, the setting of a flag was associated with the activation of a sensor and there was no indication that each event detected by a sensor resulted in the setting of a flag.

By contrast, the claims of the patent in suit required storing each fault to create a fault history. Therefore, what was recorded in the franking machine of D5 was not a fault history in the meaning of the patent in suit. Tampering events were random events, which therefore could not be used to predict an impending failure of the machine. The analysis performed in the system of D5 did not provide any indication of impending faults, but only an indication that a tampering attempt had occurred. The franking machine was disabled upon receiving an indication of tampering. This was common at the time of D5 and was expressly taught in D5 (column 3, lines 4 to 7). Without impermissible *ex post facto* analysis, it was inconceivable that a person skilled in the art would have used an indication of tampering events to provide an indication of impending general faults. Thus, neither claim 1 as granted, nor claim 1 as approved by the opposition division was anticipated by the content of D5, nor was there any motivation to provide an indication of impending faults by analysing a fault history as specified in these claims.

Claim 1 as approved by the opposition division did not encompass the possibility of sending an engineer to effect modification of the operation of a franking machine. That claim specified that a communication was established and that said communication was utilised for that purpose. This clearly distinguished the subject-matter of claim 1 from the system of D5.

Reasons for the Decision

1. Both appeals are admissible.

2. *Prior art document D5*

The document D5 describes two embodiments of methods of remotely obtaining data from a franking machine, which data are indicative of tampering events. The method according to the first embodiment of D5, which is described with reference to Figure 1, comprises the features specified in the pre-characterising portion of claim 1 as granted. In particular, in this first embodiment, tampering events are detected by sensors 36 of the franking machine. The sensors communicate the sensing of a tampering event to a memory 34 of the franking machine where a flag is set. For example, a broken break off screw can be detected by a sensor. The memory 34 of the franking machine would be scanned by a central station 12 simultaneously when remotely recrediting the franking machine and, if any indication of tampering were received, the franking machine would be disabled upon command from a processor 14 of the central station. The franking machine would then be physically inspected. Additionally, the fact that a physical inspection was required would be stored in a memory 18 of the central station 12, so that if a large number of such inspections were required over a predetermined period, the meter 30 of the franking machine could either be replaced or the user questioned as to the reason for the frequency of such physical inspection requirements. D5 further states in relation to the second, alternative embodiment that the user's postage meter would be programmed so that any tampering

would be sensed by sensors and these sensors would send an appropriate signal to the memory. In response to these signals, the memory would cause alterations in the postage indicia, each alteration being indicative of a particular sensor.

3. *The entry "history" of the Collins English Dictionary*

The following definitions of the term "history" are particularly relevant:

"1.a. a record or account, often chronological in approach, of past events, developments, etc." ...

"4. past events, esp. when considered as an aggregate."

4. *Patent in suit as granted*

4.1 Claim 1 of the patent in suit as granted specifies storing in a memory of the franking machine a fault code identifying a fault occurring during normal operation of the franking machine in franking mail items. The word "fault" is used throughout the patent in suit in a general sense. Indeed, at column 3, lines 25 to 43, the patent in suit uses the word "faults" in the context of attempts to fraudulently interfere with the operation of the franking machine. Therefore, the board construes the term "fault" as designating in general any deviation from the intended operation of the franking machine. Thus, the wording of claim 1 as granted does not exclude that a code identifying a tampering event occurring during normal operation of the franking machine is stored in the memory of the machine. In the view of the board, the occurrence of a broken break off screw as exemplarily

disclosed in D5, because it is detected by a sensor as a deviation from the intended operation, has to be regarded as a fault in the general sense of the word, independently of the type of event that might have caused the screw to break off.

4.2 D5 does not explicitly disclose a fault history in connection with the first embodiment. Therefore, the subject-matter of claim 1 as granted differs from the first embodiment disclosed in D5 in that:
a fault history of the franking machine is formed and stored in the memory of the franking machine;
the fault history stored in the memory automatically is read out and transmitted to a remote recrediting computer;
the fault history is written to a fault history store; and
the fault history stored in the fault history store is analysed to provide an indication of impending faults.

4.3 In the second, alternative embodiment disclosed in D5, each alteration in the postage indicia is indicative of a particular sensor having detected a tampering event, so that the memory has to be suitable for storing a collection of records indicative of faults detected by different sensors. In view of the second embodiment, it would be obvious to the skilled person to modify the first embodiment and set a flag in the memory of the franking machine for each sensor that detects a tampering event. The flags set in the memory of the franking machine of D5 would then each constitute a fault code identifying a fault occurring during normal operation and collectively form a record of past events indicative of faults that have been detected. As

appears from the Collins English Dictionary, history does not necessarily imply a chronological approach. Furthermore, history can be more or less detailed, so that history does not necessarily imply storing a record of each event. Indeed, the patent in suit (see column 7, line 39 to column 8, line 13) discloses that faults are recorded by setting flags in the memory, which means that possibly only a single indication is recorded for a sensor, without details about the time of occurrence of a fault or the number of occurrences. Therefore, the board takes the view that a collection of records indicative of faults that have been detected is to be regarded as a fault history in the sense of the patent in suit, even if the collection does not include all events and is such that the chronology of the recorded events cannot be determined therefrom. Starting from the first embodiment disclosed in D5, where data stored in the memory are automatically sent to a central station simultaneously when remotely recrediting the franking machine, it is obvious to transmit a fault history stored in the franking machine to the recrediting computer and the central station, where it would be written to a fault history store (D5: column 2, lines 13 to 19). According to D5 (column 3, lines 9 to 15), it is envisaged replacing the meter of the franking machine in cases where an analysis shows that a large number of faults has occurred over a predetermined period. Therefore, in the method according to the first embodiment of D5, such an analysis is able to show that the franking machine is not reliable. This means that the analysis provides an indication of impending faults.

4.4 All differences identified above between the subject-matter of claim 1 as granted and the first embodiment described in D5 are obvious to a person skilled in the art. Thus, the subject-matter of claim 1 of the patent in suit as granted does not involve an inventive step in the sense of Article 56 EPC.

5. *Patent in suit as approved by the opposition division*

5.1 Claim 1 of the patent in suit as approved by the opposition division specifies, in addition to the features of claim 1 as granted, that data are obtained from a plurality of franking machines and a fault history is stored for each franking machine, communication with at least one selected franking machine is established by means responsive to the fault history, and in response to said analysis of the fault history stored in the fault history store said communication with said means is utilised to effect modification of operation of said at least one selected franking machine to enable continued modified operation of said at least one selected franking machine.

5.2 Document D5 indicates at column 2, lines 11 to 25, that the central station 12 includes a memory 16 with all the postage meters that are to be serviced. Thus, the method underlying the first embodiment of D5 includes the step of remotely obtaining data from a plurality of franking machines.

5.3 The description of the patent in suit as approved by the opposition division states at column 5, lines 28 to 33 that "...an analysis may predict that a specific franking machine is likely to develop a specific fault

and in accordance with that prediction a service engineer visits the site of the franking machine to carry out modification or repair of the machine to prevent occurrence of the predicted fault." This is confirmed by the flow diagram shown in Figure 2 (which comprises the step "INFORM SERVICE DEPARTMENT") and the passage at column 6, lines 16 to 23 of the patent in suit which states: "Analysis of the fault log of a specific franking machine may indicate that there is a probability of failure of a component of that machine which would result in the machine becoming inoperable to effect franking of mail items and hence require an on-site visit by a service engineer to effect an early repair or replacement of that component to ensure that the machine continues to operate satisfactorily and remains in service." Therefore, the description of the patent in suit as approved by the opposition division compels the reader to construe claim 1 broadly, as not excluding that communication with a selected franking machine might be established by means of an on-site visit by a service engineer and that the modification of operation of the franking machine might consist in a modification or repair of the machine by the service engineer. It is true that, according to the patent as approved by the opposition division (see column 6, lines 31 to 48), the modification of operation of the franking machine may consist in a modification of software effected by means of a communication *via* the telephone network (referred to by the opponent as an "automatic" modification of operation). However, claim 1 as approved by the opposition division is not so limited and, as can be seen from the passage at column 6, lines 42 to 48, of the patent in suit as approved by the opposition division, a communication

via the telephone network represents an alternative to installing the modified software by on-site visits of a service engineer. In D5 as in the patent in suit, a visit by an engineer occurs in response to the analysis of the fault history, to effect a modification of the franking machine and enable its continued modified operation.

5.4 The description of the patent in suit as approved by the opposition division states at column 7, lines 49 to 54 (which relates to a discrepancy between the contents of accounting registers of the franking machine): "If the contents are identical continued operation of the franking machine is permitted. However if the contents of three replications of the register are the same but one register is different a fault flag is set to inhibit continued operation of the machine." At column 8, lines 6 to 13, the description further states: "If the fault is transitory or intermittent a transmission to reset the fault flag will be successful in resetting the fault flag. However where a permanent or non-transitory fault exists the reset of the fault flag will fail. Many faults are transitory or intermittent and hence the remote resetting of the fault flag allows the franking machine to be continued to be used until a service repair can be effected." From these passages, it is apparent that, in response to the detection of certain faults, the franking machine is first disabled, *i.e.* its operation interrupted, and that thereafter operation of the franking machine can be continued if the fault flag that inhibited its operation is successfully reset. Here also, the description of the patent in suit compels the reader to construe claim 1 broadly, as not

excluding that the franking machine is disabled before modification of operation is effected to enable continued modified operation of the franking machine. Thus, in this respect, claim 1 as approved by the opposition division does not differ from D5.

5.5 The board concludes that the additional features specified in claim 1 as approved by the opposition division, when properly construed in the light of the description of the patent in suit as amended, are obvious to the skilled person. Thus, the subject-matter of claim 1 does not involve an inventive step in the sense of Article 56 EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.

2. The patent is revoked.

The Registrar: The Chairman:

D. Sauter F. Edlinger