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D E C I S I O N
of 13 March 2002

Case Number: T 0767/99 - 3.5.2

Application Number: 93304545.2

Publication Number: 0575109

IPC: B07C 3/00

Language of the proceedings: EN

Title of invention:
A system for processing mail

Patentee:
PITNEY BOWES, INC.

Opponents:
I NEOPOST LTD
II Francotyp-Postalia Aktiengesellschaft & Co.

Headword:
-

Relevant legal provisions:
EPC Art. 52(2)(c), 54, 56

Keyword:
"Method for doing business as such - (no)"
"Novelty - (yes)"
"Inventive step - (yes)"

Decisions cited:
T 0208/84, T 0022/85, T 0854/90, T 0636/88, T 0769/92

Catchword:
-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0767/99 - 3.5.2

D E C I S I O N
of the Technical Board of Appeal 3.5.2
of 13 March 2002

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Decision under appeal: **Decision of the Opposition Division of the European Patent Office posted 11 June 1999 rejecting the opposition filed against European patent No. 0 575 109 pursuant to Article 102(2) EPC.**

Composition of the Board:

Chairman: W. J. L. Wheeler

Members: R. G. O'Connell
B. J. Schachenmann

Summary of Facts and Submissions

I. The grant of European patent No. 575 109 was opposed by two opponents and this is an appeal by opponent I against the rejection of that opposition.

II. Claim 1 of the patent as granted (respondent proprietor's main request in these appeal proceedings) and of the first auxiliary request are worded as follows, the difference between the requests being shown as underlined words which were added to form the first auxiliary request:

"1. Apparatus for mailer processing of mail comprising:

(a) a processor means (12);

(b) means (16) for sorting mail and separating local mail from non-local mail;

(c) means (20) for traying the non-local mail; and

(d) means (30, 33, 36) for delivering mail trays from the mailer to a common carrier (38), characterised in that said processor means (12) has or contains mail lists and time of departure data for a transportation system, the apparatus further including means for shipping non-local mail to the common carrier (38) in accordance with the times of departures of the transportation system so as to meet a just-in-time sequence for the mail."

Claims 2 to 5 are dependent on claim 1, while claim 6 is a method claim worded as follows, following the same

scheme as for claim 1 to show main request and first auxiliary request versions:

"6. A method of mailer-processing of mail including the steps of having a mailer sort mail in accordance with the zip code designation thereof, separating local mail from non-local mail, traying the non-local mail, providing mail destination data to the mail trays, and determining the routing of the mail trays through a transportation system; said method being characterised by:

(a) determining the times of departures of the transportation system; and

(b) delivering non-local mail from the mailer to a common carrier in accordance with the times of departures of the transportation system so as to meet a just-in-time sequence for the mail.

Claims 7 to 13 are dependent on claim 6.

III. Grounds of opposition were that the subject-matter of the claims was not patentable by virtue of Articles 52(2)(c) and (3) EPC as a method of doing business as such and by virtue of Article 56 EPC as not involving an inventive step.

IV. The following prior art documents which featured in the opposition procedure remain relevant to the present decision:

D1: EP-A-0 480 684

D2: US-A-4 669 047

D10: US-A-3 573 748.

V. Oral proceedings were held before the board on 13 March 2002 at which opponent II was, in accordance with his intention indicated in a letter dated 27 November 2001, not represented. In the course of the oral proceedings the appellant argued for the first time that the subject-matter of claim 1 of the patent as granted (main request) lacked novelty (over D10). The respondent proprietor did not object to this new ground of opposition being raised.

VI. The appellant (opponent I) argued essentially as follows:

(i) *Method for doing business as such (Article 52(2) and (3) EPC)*

Claim 1 was, in effect, directed to a method of doing business as such since the feature in claim 1 (all requests) which distinguished the claimed apparatus for processing mail from the apparatus known from prior art document D1, viz "means for shipping non-local mail to the common carrier (38) in accordance with the times of departures of the transportation system so as to meet a just-in-time sequence for the mail." was not a genuine apparatus feature but an administrative measure typical of a business activity. It simply represented the action of the van driver in ensuring, by comparing his watch with the departure times specified on the labelled mail trays, that the loaded van left in time to make the appropriate flight connection.

Although claims specifying a mixture of technical and non-technical elements could be patentable, in the

present case the claims, viewed as a whole, were directed to what was essentially a business operation, a "just-in-time" organisation of work being a typical method for doing business; cf decisions T 854/90 OJ EPO 1993, 669 and T 22/85 OJ EPO 1990, 12. In the final analysis there was no real difference between being "just-in-time" as claimed and being simply in time, which was an elementary aim in daily life and in business affairs and which could not impart technical character to the apparatus or method as claimed.

(ii) *Novelty*

The independent claims of the main request lacked novelty over D10 since the latter, in addition to disclosing a generic mail processing apparatus and method, taught a just-in-time approach to mail processing, taking account of the common carrier departure schedule, even it didn't refer to it by that name; cf D10 column 6, lines 15 to 21: "It is desired that mail be sorted in such a manner that whatever mail has been sorted to a given point at a given time be removed from the rest of the mail being sorted or yet to be sorted so that it may be shipped via the train, air, or motor route on schedule. Thus, the mail must be kept in motion and moving toward its ultimate destination with the least amount of delay within the post office." In addition, the computer controlling the D10 system contained in its memory information concerning the address codes on the mail pieces, ie mail lists as well as information concerning common carrier dispatches on which mail for a given destination might be routed, ie time of departure data for a transportation system (D10, column 7, lines 7 to 14) and "will be continually checking a real time

clock against the departure schedules of the motor, air, or rail carrier, as well as the particular route of the carrier against the articles being processed through the machine at any one time" (column 6, lines 31 to 36). Also at column 11, lines 22 to 25: "..both mail to a specific end-point destination, and dispatch (or secondary scheme) coded mail can be bundled in sufficient time to meet a carrying means such as the train cited, for prompt deliver." Thus in addition to indisputably disclosing the generic features of the pre-charactering portion of claim 1 of the main request, D10 disclosed all the characterising features as well.

(iii) *Inventive step*

For an apparatus which was mailer-based (rather than located at a post office), as explicitly specified in claim 1 of the first auxiliary request, D1 was the closest prior art. It was noted in the latter document at column 6, lines 21 to 27, that enabling a mailer to perform tasks previously performed by the post office expedited the overall mailing operation, and gained a postal discount for the mailer. The separation of local from non-local mail and the processing of the latter in accordance with the times of departures of the transportation system so as to meet a just-in-time sequence for the mail, as specified in claim 1, was simply a continuation of the trend, exemplified in D1, of the mailer taking over traditional post office functions. It was standard practice for the latter to take account of times of departure of common carriers in its processing of mail, so that it was obvious for the mailer to do the same when following this acknowledged trend, making the subject-matter of the

independent claims obvious in view of D1 and common general knowledge in the art.

Alternatively, starting from D1, the person skilled in the art, addressing the obvious problem of exploring further possibilities for reducing the need for further processing at the post office, would find in D10 the idea of a just-in-time approach, albeit not that terminology, to improving the effective flow of mail and would appreciate accordingly that the D1 system could be advantageously developed by exploiting the fact that the latter has a mail list which can be coordinated with the information relating to the departure time as was done in D10. In this way the skilled person would arrive at the apparatus or method claimed in claims 1 and 6 respectively of the first auxiliary request without any inventive step being involved.

VII. The respondent proprietor argued essentially as follows:

(i) *Method of doing business as such (Article 52(2) and (3) EPC*)

The notion that the van driver was responsible for the just-in-time performance arose from a misunderstanding of claim 1. As was clear from the description, the "means for delivering" in feature (d) of the claim was the van and should have reference numeral "36" only. The "means for shipping...so as to meet a just-in-time sequence " included the van driver in his standard role as a van driver, but it also involved the labelling of trays with destination codes and departure times to determine the van driver's actions in a "mechanical"

way. The labelled trays for collection represented the result of the controlling computer causing the processing of the mail to proceed in accordance with a just-in-time sequence.

On the more general aspect of the ground of opposition that the opposed patent related to a method of doing business as such it should be noted that the technical field was the dispatch of mail, ie the same technical field as D1. A number of decisions of the EPO Boards of Appeal had concluded that a claim involving a mixture of technical and non-technical elements was not *per se* excluded from patentability; cf T 769/92 General purpose management system/Sohei OJ EPO 1995, 525. A decision whose technical facts were close to the subject-matter of the opposed patent - closer than decision T 854/90 relied on by the appellant opponent - in particular as regards the method claim 6, and which also confirmed this point, was T 636/88 mentioned in the Case Law of the Boards of Appeal of the EPO 4th edition 2001 at Section I A 1.4 (page 11 in the English version). In the invention claimed in the independent claims of the opposed patent, technical equipment was used for a technical end.

Just-in-time was a broad concept which was, in particular, best known for its use in scheduling the in-house or out-of-house delivery of components for assembly as exemplified by D2. The non-obvious application in the opposed patent was a variant (of this general concept) which materially affected the flow of mail pieces. It was effected by hardware under computer program control which selected certain mail pieces for processing in advance of others.

(ii) *Novelty*

D10 was not novelty-destroying because it was indisputably not a mailer-based system; cf column 6, lines 7 to 10, where the post office location was mentioned explicitly. Neither was it just-in-time processing in the sense of the opposed patent. The core teaching at column 6, lines 19 to 21 of D10 was: "Thus the mail must be kept in motion and moving toward its ultimate destination with the least amount of delay within the post office." The guiding idea was apparently to prevent overload of the sorting pockets by clearing them as soon as a usable common carrier dispatch route was available. This teaching was the opposite to that in the opposed patent which deliberately delayed non-critical mail.

(iii) *Inventive step*

D1 as a mailer-based system was the closest prior art. The problem solved by the opposed patent was to shift more of the mail processing burden upstream to the mail user, reducing the load on the post office and increasing the overall efficiency of the mail system; cf patent specification column 2, lines 12 to 15 and 35 to 39. The solution involved three key technical measures:

(i) separating local from non-local mail thus by-passing the post office altogether for the latter;

(ii) storing departure data of the transport system in the mailer's computer along with the mailing list (although the mailing list was not

explicitly specified in method claim 6, it was implicit from the zip code sort);

(iii) scheduling delivery to the common carrier (not the post office) in accordance with a just-in-time sequence with the advantage that on average more mail for each destination met its respective deadline.

No suggestion that any of these measures should be employed at the mailer rather than the post office could be derived from D1 or any other prior art document. D10 had nothing to say about mailer-based operation, and as explained above, in discussing the objection of lack of novelty, this document did not teach just-in-time processing in the sense of the opposed patent.

VIII. The appellant (opponent 01) requested that the decision under appeal be set aside and that the patent be revoked.

Opponent 02 made no written submission or request.

IX. The respondent proprietor requested that the appeal be dismissed and that the patent be maintained as granted or maintained as amended on the basis of one of the auxiliary requests 1 to 5.

Reasons for the Decision

1. The appeal is admissible.

2. *Method of doing business as such (Articles 52(2)(c)*

and (3) EPC)

2.1 The patent relates generally to a system for processing mail. As described in the patent this involves mechanical sorting of mail pieces, which are physical entities such as envelopes or packages, into which various materials have been inserted by the mailer, in accordance with address information (zip codes) on the mail pieces with a view to producing trays of labelled mail appropriate for shipping to respective destinations. The specific inventive teaching recognises and addresses the problem that the prior art practice of processing the mail pieces in zip code numerical order, as generated by a mailing list, results in a lower effective throughput in a given time period, because time spent processing local mail unnecessarily early tends to prejudice the early delivery of non-local mail which needs to be dispatched sooner to make a flight connection. In broad terms, the solution proposed is to replace the numerical zip code processing order by a just-in-time sequence thus increasing the number of early non-local deliveries without prejudice to the timely delivery of local mail.

2.2 The appellant opponent's objection under Article 52(2)(c) EPC is twofold, (i) that the "means for shipping non-local mail" in claim 1 and the corresponding step in claim 6 refers to the van driver acting under business management instructions and (ii) that a just-in-time sequence is a typical administrative measure of modern business methods.

2.3 As regards the role of the van driver, the board accepts the respondent proprietor's interpretation of claim 1 according to which the "means for shipping

non-local mail" includes means for printing labels, means for labelling trays as well as the van and driver, the driver being involved only in a "mechanical" way, ie doing what a driver usually does when collecting labelled trayed mail. The driver does not determine the just-in-time sequence; he simply implements the sequence determined by the computer controlling the mail processing apparatus and expressed in the trays labelled with destinations and times of departure. There is no question of the driver exercising a judgement of the kind usually involved in doing business. In the judgement of the board, this part of the appellant opponent's objection is not well-founded.

2.4 As regards the just-in-time sequence itself, it is true that it can be fairly said to be a measure inspired by that mathematically based approach to planning and resource allocation known as operational research or logistics which is nowadays a typical management "tool" used in running a business. In the opposed patent however it has a practical application to mail processing, which is itself, in essence, a particular kind of mechanical handling and selective conveying of articles to respective destinations under given time constraints. The established jurisprudence of the EPO Boards of Appeal has construed Articles 52(2) and (3) EPC to mean that the fact that a measure may have been derived from or inspired by an insight originating in an activity which is *per se* excluded from protection - be it a discovery, a mathematical method, a mental act or a method of doing business - does not imply that a claim including the material expression or embodiment of such a measure in its specific practical application in the solution of a technical problem is a claim to

the excluded activity as such; cf decision T 208/84 Vicom OJ EPO 1987,14, Headnote I.

2.5 The respondent proprietor has admitted, and the board does not disagree, that the claims could have been drafted more clearly. Given that lack of clarity is not a ground of opposition under the EPC, the board has, of necessity, had considerable recourse to the description in coming to its conclusion about the proper construction of the claims, including the meaning to be given to the term "just-in-time". Having done this, however, the board has no doubt as to the effect of the just-in-time measure in controlling a technical process of mechanical handling and conveying.

2.6 As is confirmed below in the consideration of the issue of inventive step, the skills exercised in solving the problem addressed by this invention are those of a person skilled in the art of mail sorting, not those of a manager or businessman. Hence, in the judgement of the board, the apparatus and method claimed should be regarded as a (potentially patentable) invention within the meaning of Article 52(1) EPC and not as a method for doing business as such within the meaning of Articles 52(2)(c) and (3) EPC.

3. *Order of discussion of requests*

In the deliberation following oral proceedings, the board considered and decided on the requests of the parties in the standard order of main request followed by first auxiliary request. Nevertheless, for reasons which will become clear, in the interests of a perspicuous presentation, this decision will,

exceptionally, give the reasons for granting the respondent proprietor's first auxiliary request before giving the reasons for refusing the latter's main request.

4. *Novelty over D10* (1st auxiliary request)

As pointed out by the respondent, D10 is not a mailer-based system; the first paragraph of column 6 makes it clear that the machine described is located at a post office. Given that the feature of being mailer-based is a feature of independent claims 1 and 6 of the first auxiliary request the novelty objection is unfounded.

5. *Inventive step*

5.1 Closest prior art and objective technical problem

5.1.1 As correctly pointed out by the respondent proprietor, the delimitation of claim 1 of the granted patent was based on prior art document US-A-5 072 401 referred to in the specification of the opposed patent at column 2, line 23 ff. Nevertheless it was common ground in the opposition procedure, and it also the view of the board, that document D1 represents the closest prior art. It describes a mailer-based system. Mail is generated and processed at the mailer's premises in accordance with a mail list program; it is zip-coded, weighed, franked, bar-coded, sorted, and placed in trays which are labelled in accordance with the zip code and destination to be sent to the post office; D1, column 1, lines 1 to 8, column 4, line 23 to column 5, line 11. As stated at D1, column 6, lines 21 to 27: "As the post office receives the validated labelled trays from the mailer, no sorting or other processing

is required by the post office and the mailing clerk can forward the trays directly to the appropriate distribution centers. This saves time and effort on the part of the post office for which the mailer is given a postal discount."

5.1.2 The apparatus specified in claim 1 (1st auxiliary request) is distinguished from that known from D1 by the following features:

(i) means for separating local mail from non-local mail,

(ii) (computer)processor means containing time of departure data for a transportation system, and

(iii) means for shipping non-local mail to the common carrier (38) in accordance with the times of departures of the transportation system so as to meet a just-in-time sequence for the mail.

5.1.3 As explained in the description (column 4, lines 30 to 35),"a transportation system" is typically an aeroplane, but also includes a truck or any form of transportation that a common carrier would use. The phrase "just-in-time sequence" is supported by a number of passages in the description, eg at column 4, lines 36 to 47: "The shortcoming of the prior practice was that mailing lists are normally in numerical order according to the zip code and there is no relationship to the schedules of the common carrier. For example, the first mail being processed by the mailer may be addressed to the state of Maine whose zip code (first two digits) is 03. The first plane departure for the

common carrier may be California, zip code 92, and the flight for Maine may be many hours away. Clearly, under these circumstances it would be advantageous to process the mail for California first and the mail for Maine at a later time in accordance with the next flight departure for that state." The just-in-time program of the processor is explained in detail at column 8, lines 1 to 44, a key step being (line 27 et seq.) that "An inquiry is made 83 whether the job being processed can meet the due time at the common carrier, which will give the common carrier time to process and deliver the mail in time to meet the CET"(critical entry time). "All jobs that cannot meet the due time are placed at the end of the queue..."

5.1.4 Starting from D1 the objective technical problem solved by the claimed apparatus and method is, therefore, to increase the useful throughput of a D1 type mailer-based system.

5.2 Solution

The above problem is solved by enabling the mailer's processing system to take account of the common carrier departure timetable to produce and operate a just-in-time scheduling of the mail processing in the sense explained above.

5.3 Obviousness over D1 and common general knowledge in the art.

It is common ground that the general principle of just-in-time operation was known and applied before the priority date to such operations as stock control and delivery of components or goods to assembly sites, D2

being a typical example. The board is, however, not persuaded by the appellant opponent's contention that it was obvious for the person skilled in the mail processing art to apply this principle to a mailer-based system of the kind known from D1. The motivation for just-in-time operation, eg in component delivery is the benefit to the assembler of less storage space and later payment. The consideration in the present patent is almost the opposite, here the "supplier" (mailer) benefits by delaying the hand-over to the "assembler" (common carrier). It also runs counter to the traditional separation of functions between the mailer and the post office according to which the timetable of the common carrier would be a typical concern of the post office, the mailer confining his role to meeting the collection time set by the former. Hence, in the judgement of the board, the idea of choosing at the mailer level which mail processing job to complete and which to defer on the basis of destination and an associated common carrier timetable relating to transfer operations well downstream of the mailer's own sphere of operations cannot be considered to be a routine application of a well-known just-in-time principle.

5.4 Obviousness over D10 and common general knowledge in the art.

As noted above, the mail processing machine described in D10 is not located at the mailer. Neither is the mail processing operation described therein "just-in-time" in the sense of the opposed patent. The closest it comes to it is that in D10 mail processing for a given destination is continued right up to the last possible minute which still enables the common carrier

connection to be made. D10, column 11, line 12ff: "As the time schedule programmed within the computer signals that any mail to go along the dispatch...must be pouched for delivery to that train by a given hour, it may call out all mail along that dispatch ... In this manner, both mail to a specific end-point destination, and dispatch (or secondary scheme) coded mail can be bundled in sufficient time to meet a carrying means, such as the train cited, for prompt deliver." There is, however, no suggestion in D10 that processing jobs which are not time-critical should be identified and deferred in favour of jobs which are time-critical as illustrated in the Maine/California example above. A leitmotif in D10 is that "the mail must be kept in motion and moving toward its ultimate destination with the least amount of delay in the post office" (D10, column 6, lines 19 to 21). In contrast, the opposed patent recognises that delaying some jobs in favour of others can increase effective throughput. For these reasons the board is not persuaded by the appellant's contention that there is no real difference between "just-in-time" as used in the opposed patent and the older colloquial use of the phrase to mean "with no time to spare". If there were only a single departure time for all destinations, it would amount to the same thing, but different departure times for different destinations provides the possibility of selective processing on which the opposed patent is based and the board sees no reason to construe the claim in the simplistic colloquial sense, since it would mean that something quite banal was being claimed and it would not reflect the teaching of the description of the opposed patent.

5.5 Obviousness over the combination of D1 and D10

Given that D10 does not teach the key features distinguishing the apparatus and method in accordance with claims 1 and 6 of the first auxiliary request, viz mailer based and "just-in-time" in the selective processing sense, the person skilled in the art, starting from the closest prior art D1 and addressing the objective technical problem identified above would not derive the claimed solution from consideration of D10.

6. The board thus concludes that the subject-matters of the claims of the patent as amended in accordance with the respondent proprietor's first auxiliary request granted are to be considered as new within the meaning of Article 54 EPC and as involving an inventive step within the meaning of Article 56 EPC.

7. *Main request*

Claim 1 of the main request does not include an explicit specific limitation to mailer-based operation, although the description leaves very little room for doubt that this limitation is to be read into the claim. The respondent proprietor agreed with this view of the claim and the only reason he gave for maintaining the main request was that his client's instructions required him to request dismissal of the appeal as main request. In the judgement of the board this situation amplifies a residual doubt about what claim interpretation might be argued for in possible infringement proceedings and indeed compels the board, in order to avoid the unreasonable conclusion that the

first auxiliary request is in substance the same as the main request, to interpret claim 1 of the main request in a literal way as not being necessarily mailer-based. This then means that the claim is wider than justified by the respondent proprietor's argument as far as inventive step is concerned, ie the respondent has not sought to defend this claim on its wider interpretation. Neither does the board consider it defensible, since, in its view, the location of the just-in-time processing at the mailer level is essential for inventive step. In the judgement of the board, therefore, the subject-matter of claim 1 of the main request does not involve an inventive step having regard to D10, and the main request accordingly falls to be refused.

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 as amended in the following version:

Claims: claims 1 to 13 of the 1st auxiliary request, filed in the oral proceedings;

Description: columns 1 to 4, filed in the oral proceedings, columns 5 to 8 of the patent specification;

Drawings: of the patent specification.

The Registrar: The Chairman:

M. Hörnell W. J. L. Wheeler