## Decision of Technical Board of Appeal 3.4.1 dated 17 October 1996

 T 85/93-3.4.1(Language of the proceedings)

Composition of the board:

Chairman: G. D. Paterson<br>Members: R. K. Shukla<br>U. G. O. Himmler

## Patent proprietor/Respondent: PITNEY BOWES INC.

Opponent/Appellant: Francotyp-Postalia Aktiengesellschaft \& Co.

## Headword: Apparatus for determining postage fees/PITNEY BOWES

Article: 56, 114 EPC

Keyword: "Late-filed evidence - admitted into the appeal proceedings" "Inventive step-denied"

## Headnote

Evidence of common general knowledge, like any other evidence in support of an opponent's case, should be filed at an early stage in the proceedings before the Opposition Division (following Decision G 4/95, OJ EPO 1996, 412), and may be
rejected as inadmissible in the Board's discretion, if filed for the first time during appeal proceedings.

## Summary of facts and submissions

I. European patent No. 0107187 was opposed under Article 100(a) EPC on the grounds that the subject-matter of the patent was not an invention within the meaning of Article 52(2)(c) EPC, was not new and did not involve an inventive step.

The following evidence was cited by the Opponent in the notice of opposition in support of its submissions that the subject-matter of the patent lacked novelty or inventive step:

## E1: US-A-4 325440

E2: "Digitale Rechenanlagen" by H. Kunsemüller, B. G. Teubner, 1971, pages 78 to 79.

During the oral proceedings before the Opposition Division the Opponent also cited the following prior art document:

D1: Meyer's Lexicon, Bibliographisches Institut AG, 1971, page 17, the entry
"Abakus".

The Opposition Division disregarded document D1 in the exercise of its discretion under Article 114(2) EPC, and rejected the opposition in accordance with Article 102(2) EPC.
II. Independent claim 1 of the patent as granted has the following wording:
"An apparatus for determining postage for items to be mailed, comprising:
(a) means for determining the weight of said items;
(b) data entry means for entering data necessary to determine the postage value applicable to said item, said data including data defining special fees, if any, applicable to each of said items; and
(c) processor means operatively associated with said weight determining means and said data entry means, for determining the postage value applicable to each of said items, said processor means further comprising memory means for storing first tables of data defining base postage rates, and second tables defining special fee rates, said special fees including currency value oriented special fees which are determined in accordance with an entered currency value; and said processor means being arranged to respond to said determined weights and applicable entered data to select a base postage value for each of said items, and to respond to said determined weights and said entered data, as applicable, to select special fee values for each of said items to which such special fees apply and said processor being arranged to adjust said base postage values in accordance with said selected special fee values, if any, and to output said adjusted values, characterized in that
(d) each of said second tables includes two sections comprising a lower section defining special fee rates for entered currency values ranging up to and including a predetermined currency value expressed in a predetermined number of digits and an upper section defining special fee rates for entered currency values ranging up from said predetermined currency value and comprising more than said predetermined number of digits and
(e) in that in determining the special fee values, said processor is arranged to select in accordance with an entered currency value ranging up to and including said predetermined currency value from said lower section the corresponding fee value for each item, and said processor is arranged to select in accordance with an entered currency value ranging up from said predetermined currency value from said upper section the corresponding fee value for each item after having rounded up the entered currency value such that the digits exceeding said predetermined number of digits are zero."

Independent method claim 6 has features essentially corresponding to those of the above-cited claim 1.
III. In the above decision, the Opposition Division held that the subject-matter of the patent was not objectionable under Article 52(2) EPC, since it provided a technical effect in overcoming technical constraints of the prior art. Furthermore, the claimed invention was held to be novel and to involve an inventive step, since document E2 did not give any hint to the use of a second table addressed by rounded-up truncated version of the input values.
IV. The Opponent lodged an appeal against the above decision and requested that the patent be revoked in its entirety, since the claimed subject-matter did not involve an inventive step having regard to the documents cited during the proceedings before the Opposition Division and the following additional documents cited in the statement of the grounds of appeal:

E3: Enzyklopädie Naturwissenschaft und Technik, Verlag Moderne Industrie
Wolfgang Dummer \& Co., 1979, pages 17 to 18, entry "Abakus".

# E4: Enzyklopädie Naturwissenschaft und Technik, Verlag Moderne Industrie Wolfgang Dummer \& Co., 1980, page 4009, entry "Skalierungsfaktor". 

E5: Einführung in die Datenverarbeitung, by Sebastian Dworatschek, Walter de Gruyter \& Co., 1971, pages 97 to 103.
V. The patent Proprietor (Respondent) requested that the appeal be dismissed and the patent be maintained as granted (main request).

At the oral proceedings held before the Board, as the basis of an auxiliary request, the following amendments to the wording of claim 1 as granted were proposed:

Replace the wording "the entered currency value such that the digits exceeding said predetermined number of digits are zero" at the end of the claim by "the entered currency value to a multiple of one hundred and disregarding the final two zero digits".

Corresponding amendments were requested to the independent method claim 6.
VI. The Opponent's submissions in support of its requests can be summarised as follows:
(a) Late-filed documents.

Despite due care it was not possible to find documents E3, E4 and E5 during the opposition period. In any case, these documents merely represent the common general knowledge to which references were already made at the opposition stage, so that no new arguments have been introduced at the appeal stage by citing these
documents. Decision T 379/88 supports the Opponent's submission that a document representing common general knowledge cannot be disregarded merely because it was not cited during the opposition period. It is in fact in the interest of all parties that no patent is maintained without having considered a relevant prior art document cited during the opposition or opposition appeal proceedings. Document D5, in particular, is highly relevant to the issue of inventive step and should not therefore be disregarded.

## (b) Inventive step.

Document E1 discloses an apparatus according to the preamble of claim 1 of the patent. This apparatus allows only for a predetermined number of digits to be entered for currency values relating to special fees (such as insurance fees). The problem due to the availability of a fixed number of digits is not limited to the technical field of postage meters, but also occurs in the field of data processing in general.

Document E3 shows that in the well-known abacus device, the different columns correspond to different ranges of numbers 1-9, 10-90, etc. When a number to be represented exceeds the available positions in one column, one has to go to the next column where each element symbolises 10 times the elements in the first column. This function of the columns in the abacus thus corresponds to the function of the upper and lower sections mentioned in claim 1 of the patent. To apply the well-known function of an abacus to a computer in a postage-determining apparatus was obvious to the skilled person.

Furthermore, in connection with data processing, document E4 teaches that scaling factors are to be used when the number of digits exceeds a certain limit. The claimed invention is therefore rendered obvious also by the teaching in document E 4 .

Document E5, which is a general textbook in the field of data processing, discloses (page 98, third paragraph) that when a large number having digits exceeding a fixed number of available digit positions is to be represented, the least significant digits are dropped. The modified number (from which the least significant digits have been dropped) must evidently be distinguished from the other numbers. This could be done either by the use of a scaling factor or by the help of a special table. Since special fees in a postage meter do not increase linearly with an entered currency value, it is evident that a simple scaling factor cannot be used. The skilled person would therefore be led to use a special table for representing these higher currency values and the corresponding special fees.

The fact that the entered currency value according to the claim is rounded up is just one of two obvious alternatives, i.e. rounding up and rounding down, which the skilled person would select without having to exercise any inventive activity.

The skilled person would therefore arrive at the claimed subject-matter using what was common general knowledge in data processing as represented by document E5.

Furthermore, document E1 discloses (see column 15, line 67 to column 16, line 7 and Figures 13 and 15) that a special bit code is used to indicate whether an amount is in dollars or cents, thereby implying the use of two different tables each with values differing from those of the other by a factor one hundred.

The decision whether to drop 1, 2 or 3 digits from larger values is an arbitrary one which the skilled person would make depending on the circumstances. Therefore, the additional feature of claim 1 of the auxiliary request - viz. that the final two digits are discarded - does not contribute to an inventive step.
VII. The arguments of the patent Proprietor can be summarised as follows:
(a) Late-filed documents.

Documents E3, E4 and E5 were cited for the first time in the grounds of appeal, without any reason being given for their late filing. According to the decision T 212/91, new facts and in particular new evidence which go beyond the "indication of the facts and evidence" presented in the Notice of opposition should only very exceptionally be admitted into the proceedings, and then only if such evidence is prima facie highly relevant. In the present case, none of the late-filed documents is particularly relevant, so that the documents should be held inadmissible.
(b) Inventive step.

Document E1 discloses a postage calculating apparatus as set out in the preamble of claim 1, but does not give any hint leading to the employment of a different lookup table (or section) when a currency value exceeding a predetermined currency value is entered. In the apparatus according to the present invention the range of entered currency values can be increased hundredfold by merely doubling the required memory space.

Document E3 concerns the field of ancient manual calculating machines, and the person skilled in the art of electronic postage meters would not look for solutions in this field.

Document E4 explains the term "scaling factor" used in analogue and digital computers when inputs or outputs are too large to be displayed by calculating machines. The document does not mention look-up tables, so that it would be of no assistance to a skilled person faced with the problem of a limited size of look-up tables.

Document E5 teaches that in a system with a fixed word length, numbers with digits exceeding this word length should be truncated such that the least significant digits are dropped. The application of the teaching of document E5 to a postage meter as disclosed in document E1 would lead to a single look-up table having entries only for every tenth or hundredth input number. This is contrary to the present invention, according to which two separate look-up tables (sections) are used. The present invention thus involves much more then the use of truncation and a scaling factor.

Furthermore, in document E5 the entered values are rounded down. In the present invention, on the other hand, the least significant digits are dropped and the entered values are rounded up. Moreover, it is not true that only two alternatives exist, i.e. rounding up or rounding down, when a value to be entered exceeds a fixed value. Thus for example, the decision to round up (or to round down) a value could depend on whether by doing so the entered value would be closer to the original value than in the case had the value been rounded down. Still further, to round up is more complicated than to round down, since it involves adding one to the digit adjacent to the dropped digits.

The passage in document E1 cited by the Opponent (see column 15, line 67, to column 16, line 7 ) only concerns the use of a scaling factor depending on whether cents or dollars are involved. This passage has therefore nothing to do with look-up tables.

None of the cited documents would therefore lead the person skilled in the art to the claimed solution.

According to the auxiliary request, the entered currency value is rounded up to a multiple of one hundred and the final two digits are disregarded even when the entered value exceeds the predetermined number of digits by only one digit. This feature constitutes a particular advantage of the invention to which there is no hint in the cited prior art.


#### Abstract

VIII. In an annex to the summons to oral proceedings, the Board informed the parties that on preliminary considerations, late-filed document E5 appeared to be sufficiently relevant, so that subject to the submissions by the parties at the oral proceedings the document may be admitted into the proceedings.


IX. Oral proceedings were held on 17 October 1996, and at the conclusion of these proceedings it was announced that the patent is revoked.

## Reasons for the decision

## 1. Admissibility of the late-filed evidence

1.1 With regard to documents E3, E4 and E5 filed for the first time in the grounds of appeal, the Opponent (Appellant) relying on decision T 379/88, dated 15 January

1991 contended that a late-filed document indicating common general knowledge of a skilled person in the relevant technical field cannot be disregarded as not submitted in due time pursuant to Article 114(2)EPC because it merely serves to confirm what is already commonly known in the field.

In the present Board's view however, the above submission, which leaves no discretion to the Boards of Appeal to disregard a late-filed document indicating common general knowledge is contrary to the legal principle established in decisions G 9/91 and G 10/91, OJ EPO 1993, 408 and 420, and elaborated in decisions T 1002/92 (OJ 1995, 605, point 3.4), and T 212/91 (supra), namely that the primary purpose of the appeal procedure is to give the losing party the possibility of challenging the decision of the opposition division on its merits, and that such a " primary purpose" of appeal proceedings presupposes that there is no change in the legal and factual framework of the appeal proceedings following the issue of the first instance decision.

Following the above principles, it was held in Decision T 1002/92 (see point 3.4, eighth paragraph) that in proceedings before the boards of appeal new facts, evidence and related arguments which go beyond the "indication of the facts and evidence and arguments " presented in the Notice of Opposition in support of the grounds of opposition should only very exceptionally be admitted into the proceedings, if such new material is prima facie highly relevant in the sense that it is highly likely to prejudice maintenance of the European patent in suit; and having regard also to relevant factors in the case, in particular whether the patentee objects to the admissibility of the new material and the reasons for any such objections, and the degree of procedural complication that its admission is likely to cause.

As stated also in Decision G4/95 (OJ EPO 1996, 412, point 4),
"According to the practice of the opposition divisions as set out in the note "Opposition procedure in the EPO" (OJ EPO 1989, 417), facts and evidence should be adduced at an early stage in proceedings before the opposition division - see in particular paragraphs 8 to 13. An opponent should normally file evidence in support of his opposition within the nine-month opposition period or within a short period (two months) thereafter; and the proprietor must file his evidence in reply within a fixed period after that.
"Appeal proceedings are normally examined and decided on the basis of facts and evidence filed during the proceedings before the opposition division.
"While the filing of facts and evidence by parties to opposition and opposition appeal proceedings is not precluded at any stage of such proceedings, the admissibility of facts and evidence filed at a late stage in such proceedings is always a matter of discretion for the EPO (see Article 114(2) EPC)."

Consequently, in any opposition proceedings, the onus is upon the opponent to prove his case, by filing all the evidence in support of the opposition at any early stage in the proceedings before the Opposition Division. In any event, all such evidence should be filed during the proceedings before the Opposition Division. evidence filed during the appeal proceedings may be disregarded.

In the present case, the late-filed documents are cited as evidence of common general knowledge in the relevant technical field, and are used to substantiate the Appellant's submissions made in the notice of opposition that the feature distinguishing the invention as claimed in the patent in suit from the closest state of the art (document E1), formed part of the common general knowledge of the skilled person. Thus, although the new documents do not change the basic line of
argumentation, they introduce new facts and thereby change the factual framework from what it was in the proceedings before the opposition division. Contrary to the submission made by the Opponent, therefore, the Board is empowered to exercise its discretion under Article 114(2) EPC to disregard these documents despite the fact that they indicate common general knowledge in the relevant technical field.


#### Abstract

1.2 The question before the Board is therefore whether the circumstances of the present case justify admission of the late-filed documents into the appeal proceedings in accordance with Article 114(1) EPC.


From the following discussion of the late-filed document E5, it is evident that the document is highly relevant in the sense that it prejudices the maintenance of the patent. Also, the Board accepts the Opponent's submission that the late-filed documents were not discovered earlier. Thus, in the Board's view the late filing of the documents was not deliberate and does not represent an abuse of the proceedings (see T 534/89, OJ EPO 1994, 464). Moreover, having regard to the facts that the documents E3 to E5 were cited from the beginning in the grounds of appeal and that the disclosure of the document E5 relied upon by the Opponent is relatively short and straightforward, in the Board's view its introduction into the appeal proceedings would not be unfair to the patent proprietor nor would it cause procedural complications.

In view of the above considerations, the Board has decided to admit document E5 into the proceedings. The other late-filed documents are not relevant, so that they are not admitted into the proceedings.
1.3 There was no request from the patent Proprietor for an award of costs to compensate for the late filing of the documents. Moreover, in the Board's view in the
context of the appeal proceedings as a whole, any extra time required for consideration of document D5 was minimal.

## 2. Inventive step

Claim 1 (Main Request)
2.1 Document E1 constitutes the closest prior art and discloses an apparatus for determining postage, as set out in precharacterising part of claim 1 under consideration.

The apparatus according to the present invention is thus distinguished over the closest prior art by the features (d) and (e) of the characterising part of the claim.

In view of these distinguishing features, the objective problem addressed by the present invention can be regarded as the one stated in the patent in suit on page 2, lines 28 to 31, i.e. to provide, with only minimal changes in the system, an apparatus capable of determining special fees based on currency values larger than the maximum amount which can be expressed in the number of digits allowed in the prior art apparatus such as known from document E1.
2.2 As is acknowledged in the patent in suit (see page 2, lines 20 to 22), in the art of postage-determining apparatus the need to insure items for currency values in excess of, e.g. US \$ 1,000,000 is recognised, so that, in the Board's view, a person skilled in the art must be presumed to be aware of the limitations of the prior-art apparatus in processing such large values. The skilled person would, therefore, consider modifying the prior-art apparatus to this end, and would, for reasons of economy and reliability of the known apparatus, consider only the minimal necessary
changes in the prior-art apparatus. In the Board's view, therefore, there is no contribution to the inventive step in the claimed subject-matter in the recognition of the above-stated objective problem.
2.3 Modern postage meters, like the apparatus disclosed in document E1, include electronic data processing means for processing entered currency values, so that the notional skilled person in the art of postage meters is also an expert in the field of data processing, and must therefore be presumed to be aware of what was common general knowledge in this field.

As mentioned in section 2.1 above, document E5 is a standard textbook on introductory data processing and therefore represents the common general knowledge in data processing. In section "2.2.1. Begrenzte Stellenzahl" (see in particular page 98, third paragraph), it is explained that if a number to be entered in an apparatus has more digits than a fixed number of digits allowed in the apparatus, then the number can be entered by truncating it, whereby the least significant excess digits from the number to be entered are cut off.
2.4 It was contended by the patent Proprietor that a mere incorporation of the teaching of document E5, i.e. to drop the least significant excess digits, in the apparatus of document E1 would not lead to the apparatus according to the invention, since neither of these documents discloses the following features of the invention:
(i) rounding up of the entered currency value when the latter exceeds a predetermined currency value (i.e a predetermined number of digits),
(ii) provision of an upper section of the second table, the upper section defining special fee rates for entered currency values ranging up from a predetermined currency value and comprising more than a predetermined number of digits, and
(iii) selection of a special fee value corresponding to the entered currency value from the upper or lower section of the table depending upon whether or not the entered currency value exceeds the predetermined currency value, wherein
(iv) the selection of a special fee value from the upper section is made
after having rounded up the entered currency value as in (i) above.
2.5 Although the Board agrees with the patent Proprietor that the above features are not disclosed in either of the documents E1 and E5, in the Board's view these features would have been regarded as obvious by a person skilled in the art, for the following reasons:

In the apparatus of document E1 a second table having only one section (corresponding to the lower section of the second table according to the claimed apparatus) is provided and special fee values are assigned to special currency values up to and including a predetermined currency value. In other words, in the apparatus of document E1 there is no fixed functional relationship between the fee value and the currency value, and the apparatus affords the flexibility of assigning any desired fee value to an entered currency value such as an insurance value for an item to be mailed. Moreover, the processor in document E 1 selects a fee value corresponding to the entered currency value from the table.

To a skilled person concerned with the above-mentioned objective problem, it would be obvious that large currency values exceeding the predetermined currency value
must be distinguished in the second table from the currency values up to and including the predetermined currency value, so that the large currency values cannot be simply truncated as in document E5. Also, to retain the flexibility of assigning a desired fee value to a currency value in the second table of the apparatus of E1, the skilled person would realise the necessity to provide an additional section in the second table for the large currency values, similar to the one for the currency values smaller than or equal to the predetermined currency value.

Furthermore, data processing technology and techniques for computing postage routinely involve logic decisions. Thus, for example, in the apparatus of document E1 if information indicative of special fee categories is supplied, a postage value based on the special fee value is generated (see, for example, column 3, lines 23 to 30 ). In the Board's view, therefore, it was obvious for the skilled person to arrange the processor of document E1 so that depending upon whether or not the entered currency value exceeds a predetermined value it would select a fee value from the appropriate section of the second table.

With regard to feature (i), the Board agrees with the patent Proprietor that, in document E5, the least significant digits exceeding a fixed number of available positions are simply dropped, so that the entered number is rounded down. In the field of postage calculating apparatus such as the apparatus of document E1, as the special fee values are to be determined, e.g. for insurance values of the items to be mailed, rounding down of a number would result in under-insuring the item to be mailed. This would clearly be undesirable, so that in the Board's view, the decision of rounding up a truncated currency value would have been obvious to the skilled person despite the fact this would entail an extra step of increasing the remaining least significant digit by one after truncation.

For the foregoing reasons, in the Board's judgment, the subject-matter of claim 1 would be obvious to a skilled person, and therefore does not involve an inventive step within the meaning of Article 56 EPC.

### 2.6 Claim 1 - auxiliary request

According to claim 1 of the auxiliary request, when the entered currency value has one or more digits exceeding the number of digits in the predetermined currency value, the entered currency value is rounded up to a multiple of one hundred and the final two zero digits are discarded.

In the Board's view, in a postage determining apparatus the decision as to how many digits are to be dropped from larger currency values is dictated by the given circumstances as discussed below.

If, as exemplified in the description of the patent (see page 2 , lines 20 to 24 ), there is a need to determine special fee rates for higher currency values having two or more digits than the number of digits allowed in the prior art apparatus, then it would be obvious to the skilled person to drop the two last digits. Also, depending on the size of the memory available for storing special currency values and the corresponding fee values, the skilled person would round up the currency value to a multiple of hundred even if the higher currency value had only one extra digit. In this connection, it would be evident to the skilled person that rounding up of the currency value to a multiple of ten and dropping one final zero when the higher currency value has one extra digit, would require a tenfold increase in the memory space of the second table in comparison to the memory space required when last two zeros are discarded.

For the foregoing reasons, in the Board's judgment, the subject-matter of claim 1 of the auxiliary request does not involve an inventive step.
3. Since neither main nor the auxiliary request fulfils the requirement on inventive step (Articles 52(1) and 56 EPC), the patent is to be revoked.

## Order

## For these reasons it is decided that:

1. The decision of the Opposition Division is set aside.
2. The European patent is revoked.
