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**D E C I S I O N**  
of 15 December 1993

**Case Number:** T 0304/91 - 3.2.2

**Application Number:** 87302799.9

**Publication Number:** 0240316

**IPC:** A61B 5/10

**Language of the proceedings:** EN

**Title of invention:**  
Measuring probe

**Applicant:**  
Ackerman, Jerome B.

**Opponent:**  
-

**Headword:**  
-

**Relevant legal norms:**  
EPC Art. 54(1), 111(1)  
EPC R. 67

**Keyword:**  
"Novelty (yes)"  
"Reimbursement of the appeal fee (no)"  
"Remittal (yes)"

**Decisions cited:**  
-

**Catchword:**  
-



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Boards of Appeal

Chambres de recours

Case Number: T 0304/91 - 3.2.2

**D E C I S I O N**  
**of the Technical Board of Appeal 3.2.2**  
**of 15 December 1993**

**Appellant:** Ackerman, Jerome B.  
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**Decision under appeal:** Decision of the Examining Division of the European Patent Office dated 6 August 1990 refusing European patent application No. 87 302 799.9 pursuant to Article 97(1) EPC.

**Composition of the Board:**

**Chairman:** G. Szabo  
**Members:** M. Noel  
F. Benussi

## Summary of Facts and Submissions

I. European patent application No. 87 302 799.9 (publication No. 0 240 316) was refused on 6 August 1990 by decision of the Examining Division for the reasons that the subject-matter of the main claims was not novel having regard to prior art document:

(1) WO-A-8 403 143.

Another document, considered by the Board in the present decision and already cited in the European search report, was:

(2) US-A-3 943 914.

II. Claim 1 in the version as refused reads as follows:

"An apparatus for measuring distance between points in the mouth of a patient undergoing medical or dental diagnosis or treatment, said apparatus comprising:

a housing (68) having an end (72) thereof placeable adjacent to a first of said points;

a distance measurement means coupled to said housing (68), said distance measurement means producing at least one output signal representative of the distance between two points in the mouth; and

an analyzing means (32) responsive to said output signal for reporting the measured distance;

characterized in that means (60) are provided for selectively specifying a location in the mouth corresponding to a measurement being made."

III. The Appellant (Applicant) lodged an appeal on 5 October 1990 against the decision of the first instance. A Statement of Grounds, received on 5 December 1990, was

accompanied by three sets of claims, one with a main request (comprising Claim 1 as refused) and two with auxiliary requests (main Claims 1A and 1C, respectively).

- IV. In a communication dated 25 January 1993 sent prior to the summons to oral proceedings, the Board informed the Appellant of its provisional opinion that the different sets of claims submitted with the Statement of Grounds still appeared to lack novelty with respect to the teaching of document (1).

The Appellant having expressed his intention of not to be represented at the oral proceedings due to take place on 17 June 1993, the cancellation of the oral proceedings was ordered by the Board.

- V. In his written submissions the Appellant substantially argued as follows:

- (i) There is a procedural violation on behalf of the Examining Division by refusing the application without further warning after the response to the first communication, although *bona fide* reasons were given and real efforts were made to deal with all the objections of the Examiner. According to the Guidelines for Examination C.VI.2.5, 4.3 and 7.1, it was reasonable to suppose that a further official letter would have been sent prior to a final decision since the Applicant had filed a reasoned response meeting all the outstanding objections. After the response to the first communication, the Applicant should have been given a further opportunity to consider the Examiner's view for correcting the apparent misunderstanding or to reconsider his position by filing new amended claims representing patentable subject-matter if

the view of the Examining Division appeared to be justified.

Refusal of the application was thus a substantial procedural violation justifying reimbursement of the appeal fee and remittal of the case to the first instance for further prosecution, in conformity with Decision T 84/82, OJ EPO 1983, 451.

- (ii) Document (1) indicates that a computer is programmed to work sequentially through a set of subsequent teeth, but no information is passed to the computer concerning which tooth is being measured. The foot control 23 has apparently only one mode of operation. No means is provided to skip one or more teeth in the usual sequence of six consecutive readings made on subsequent teeth. Therefore, "means for selectively specifying a location" are not disclosed in document (1) and the subject-matter of Claim 1 must be regarded as novel.

VI. The Appellant requests;

- that the contested decision be set aside;
- that the case be remitted to the first instance for further prosecution on the basis of either the first request (Claims 1 to 10 filed with the letter of 10 April 1990) or the auxiliary requests (Claims 1A to 1C submitted with the Statement of Grounds of Appeal); and
- that reimbursement of the appeal fee be ordered.

## Reasons for the Decision

1. The appeal is admissible.
2. *Formal aspects*

The content of Claim 1 according to the main request is identical in scope to that of Claim 1 as originally filed, but reworded in a two-part form under Rule 29(1) EPC so as to incorporate in its precharacterising portion features known from the closest prior art document (1).

Such formal amendment is not so as to extend the subject-matter of Claim 1 beyond the content of the application as filed, in conformity with Article 123(2) EPC.

Dependent Claims 2 to 10 are derived from the reworded original Claims 3 to 9. They are fairly supported by the original disclosure and thus not open to objection.

3. *Interpretation of Claim 1 (main request)*

A correct understanding of the characterising feature "means for selectively specifying a location" requires Claim 1 to be interpreted in the light of the original description, according to Article 69(1) EPC and associated Protocol for its interpretation.

The present application provides an apparatus for measuring the distance between two points in the mouth of a patient undergoing medical or dental diagnosis or treatment. When an elongate probe 20 in the apparatus is extended, a distance measurement device comprising a potentiometer 146 actuated by a control sleeve 108

(Figures 3, 4) provides a measurement output signal which is representative of the distance between two points, e.g. the depth of a pocket between a predetermined tooth and the adjacent gum or the depth of a root canal excavation. An analyser responsive to the output signal reports the distance measured according to either of the three methods available for making measurements, as described in the application on pages 10 to 11. The analyser includes a microcomputer 32 for analysing the measurements data and displaying the results. Data which has been analysed and displayed can also be printed.

A foot pedal switch 60 having three independent foot pedals 61A, 61B, 61C, supplies signals to the microcomputer 32 to select among possible modes of operation for analysing and organising data from the probe. Foot pedal 61A is pressed to establish a zero reference, from which measurement may be taken by pressing foot pedal 61B. When the foot pedal 61C is pressed an incrementing or decrementing function takes place, according to respective rear or forward positions of the sleeve member 108, to indicate the next tooth location.

In a typical operating sequence, the program of the microcomputer initialises at first the system by displaying a tooth number designation, for example "01 labial", and both labial and lingual sides of all 16 lower teeth are examined successively. The program of the microcomputer then switches automatically to the upper teeth numbers 17 to 32 to continue the examination procedure, according to the subroutine instructions detailed on pages 15 to 16 with reference to the flow diagram on Figure 10D. A hard copy printout of the measurement taken, with the location by tooth number and side, is then made available to the dentist. However,

whether sleeve 108 is held at a position which causes incrementing or decrementing of tooth number, each time that foot pedal 61C is released and pressed again to close switch 156C (Figure 7), the incrementing or decrementing function is repeated (cf. page 12, third paragraph).

Therefore, "means for selectively specifying a location" are provided by the foot pedal 61C in relation to both the position of potentiometer 146 and the program in microcomputer 32. They enable the dentist to cycle quickly through a preprogrammed sequence to reach the tooth location of interest and to provide a zero reference calibration for any point from which a measurement is to be taken. Although these means are not specified in Claim 1, their functions are, nevertheless, summarised and implied by the functional wording of the characterising feature. For the Board, the subject-matter of the main claim is therefore clear and concise and moreover supported by the application as filed.

4. *Novelty (main request)*

4.1 Document (1) describes an apparatus for measuring distance between points in the mouth of a patient undergoing medical or dental diagnosis or treatment, in particular for measuring the depths of dental cavities or gum pockets (periodontal pockets). This apparatus comprises:

- a housing 10 having an end 11 thereof placeable adjacent to a first of said points,
- a distance measurement means 13-17 coupled to said housing, said distance measurement means producing at least one output signal 119 representative of the distance between two points in the mouth, and



- an analysing means 21 responsive to said output signal for reporting the measured distance.

Thus, all the features of the precharacterising portion of Claim 1 are known from document (1).

The apparatus disclosed in said document also comprises a foot control 23 to indicate to the computer (analysing means) when readings are to be registered. Foot pedal 23 is, therefore, similar to foot pedal 61B in the present application for taking a pocket depth measurement.

Further, document (1) indicates that it is normal practice for six depths readings to be taken on each tooth, and that the computer may preferably be programmed and arranged to record a predetermined number of readings, for example six readings as being associated with each tooth of the patient before moving onto the next tooth, i.e. six consecutive readings with the usual six pocket depths of a single tooth, and subsequent batches of six readings with subsequent teeth.

However, no means is provided in the known apparatus to select or identify a particular tooth location among 32 other possible positions. In other words, no information is passed to the computer concerning which tooth is being measured. In order to skip one or more teeth in the usual sequence, the dentist must presumably enter six zero readings, i.e. run through a preprogrammed sequence to reach a particular measurement position without any possibility for incrementing or decrementing the tooth number. The apparatus of document (1) is, therefore, intended for sequential measurement of teeth, as for example would occur in a full dental examination.

In contrast, the device according to the present application may be used to selectively measure the distance between any two points in the mouth, and is not limited to batch or sequential measurements.

Consequently, the view of the Board is that the features claimed in the characterising portion of Claim 1 are not disclosed by the teaching of document (1). Therefore, the subject-matter of Claim 1 according to the main request is novel with respect to the closest prior art.

- 4.2 The reasons given by the first instance for refusing the application were confined to assert that means for selectively specifying a measurement location were clearly described in document (1), more particularly on page 12, lines 10 to 17. However, as explained above, the Board's opinion is that a proper understanding of the teaching of document (1) does not allow to conclude in this way. Even if document (1) indicates that the readings for a particular patient are stored and can readily be recovered for comparison by the computer at a future date, each time the operation is concerned with subsequent batches of six consecutive readings with consecutive teeth so that measurements on a specific location taken out of said sequence is neither envisaged nor possible with the known device.

Moreover, as long as a complete examination of the application with respect to the cited prior art has not seriously questioned the non-obviousness of Claim 1 in relation to the characterising feature, and in particular to the relevant functional wording therein there is no reason to object to the level of generalisation nor to call for the introduction of more specific features.

4.3 The Board has also considered the novelty of Claim 1 vis-à-vis the prior art document (2), although this was not questioned in the contested decision. Document (2) describes a remote recording periodontal depth probe comprising, among others, a probe body 11 lodging a partially unsheathed probe tip 12. But contrary to the claimed embodiment, the probe tip sleeve 28 is slidably mounted over the protruding tip 12 while, according to the application, the tip end 72 is part of and fixed to the housing. This represents a first structural difference.

In addition, the device described in document (2) does not provide a possibility for incrementing or decrementing a location number either, with the view to take a series of measurements on a selectively specified tooth. Each time the foot pedal 70 is depressed, a measured depth is recorded on tape medium 61 and a position counter 67 is advanced to its next position. Counter 67 indicates the point at which the current measurement is being made, in a preselected sequence of measurements. This is useful if the operator should be interrupted in his sequence of measurements (cf. column 6). Button switch 63 and control tab 65 do serve only the purpose of manually advancing the tape record, one line at a time, and are in no case comparable with the foot pedal switch 61C used in the present application.

It results from the foregoing that the subject-matter of Claim 1 distinguishes from document (2) also by the features of its characterising portion.

4.4 Since no other document than documents (1) or (2) among those cited in the European search report comes closer to the subject-matter of Claim 1 of the main request, it must be regarded as novel within the meaning of

Article 54(1) EPC. Consequently, any examination by the Board of the even narrower claims in the auxiliary requests can be omitted as far as novelty is concerned.

5. *Request for reimbursement of the appeal fee*

In the Statement of Grounds for Appeal, the Appellant submitted that in response to the first communication of the Examining Division, an attempt had been made to deal with the Examiner's objections and to put the application into a form ready for grant.

However, the opinion of the Board is that the first instance behaved properly in the present case, as Article 113(1) EPC does not require that the Applicant be given a repeated opportunity to comment on the argumentation of the first instance so long as the decisive objections against the grant of the European patent remain the same (cf. T 84/82, OJ EPO 1983, 451, point 7 and T 161/82, OJ EPO 1984, 551, point 11).

The expression "as often as necessary" in Article 96(2) EPC indicates that the Examining Division has a discretion, by inviting the Applicant to file observations, which has to be exercised objectively in the light of the circumstances of each case.

In the present case, nothing in the Applicant's response of 10 April 1990 could have brought the first instance to change its mind since, apart from a formal amendment (rewriting in a two-part form), the subject-matter of Claim 1 was not modified in substance and the arguments put forward still failed to convince the Examining Division that Claim 1 was novel. In this respect, it is to be noted that the characterising feature under dispute being of a functional nature and as such relatively general, the Examining Division could have

been easily mistaken as to its interpretation and consider the very function as implicitly known from document (1).

Without proper explanations from the Applicant this was also apparent from the provisional conclusion of the Board in its communication issued on 25 January 1993. Only after more careful examination of the Board following declination on behalf of the Appellant to express himself orally at oral proceedings, could the Board rectify its position. Where general claims are concerned, the risk of possible misunderstandings leading to a refusal of the patent is obviously greater and this must be assumed by the Applicant.

In view of the above, the Board comes to the conclusion that the proceedings before the first instance does not suffer from a violation of procedure and there is no basis for a reimbursement of the appeal fee under Rule 67 EPC.

6. *Remittal to the first instance*

As the reasons for which the Examining Division refused the application no longer applies, the Board takes the view to set aside the decision under appeal. However, since the first instance has not yet considered whether the present application meets the requirement of inventive step, the Board considers it appropriate, in accordance with Article 111(1) EPC, in order to avoid loss of an instance, to remit the case to the first instance for further prosecution.

**Order**

**For these reasons, it is decided that:**

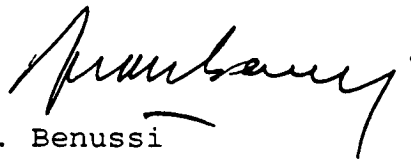
1. The decision under appeal is set aside.
2. The case is remitted to the first instance for further prosecution on the basis of documents of the main request (paragraph VI).
3. The request for reimbursement of the appeal fee is rejected.

The Registrar:

On behalf of the Chairman:



S. Fabiani



F. Benussi