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D E C I S I O N
of 6 August 2003

Case Number: T 0413/01 - 3.2.2

Application Number: 89905117.1

Publication Number: 0370089

IPC: A61B 6/00

Language of the proceedings: EN

Title of invention:
Mammographic methods and apparatuses

Patentee:
Planmed Oy

Opponents:
1. Instrumentarium Imaging
2. Siemens-Elema AB

Headword:
-

Relevant legal provisions:
EPC Art. 54(2), 56, 123(2), (3)

Keyword:
"Admissibility of a brochure as prior art"
"Inventive step (yes, after amendments)"

Decisions cited:
-

Catchword:
-



Case Number: T 0413/01 - 3.2.2

D E C I S I O N
of the Technical Board of Appeal 3.2.2
of 6 August 2003

Appellant: Planmed Oy
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Decision under appeal: Decision of the Opposition Division of the
European Patent Office posted 7 February 2001
revoking European patent No. 0370089 pursuant
to Article 102(1) EPC.

Composition of the Board:

Chairman: W. D. Weiß
Members: M. G. Noel
U. J. Tronser

Summary of Facts and Submissions

- I. European patent No. 0 370 089 was revoked by decision of the Opposition Division on the grounds of extension of its subject-matter (Article 123(2) EPC) and lack of inventive step (Article 56 EPC) vis a vis document B1. The first instance considered that the provision of a motor for automation purposes even for an isocentric mammographic apparatus had to be seen as a normal design possibility without any inventive merit.
- II. The appellant (patentee) lodged an appeal against this decision and filed a statement of grounds on 7 June 2001 along with amended claims. The availability to the public of document B1 was also contested.
- III. As to the respondents (opponents), opponent 2 replied on 18 October 2001 and submitted a declaration in lieu of an oath by Marianne Popp as an evidence of the admissibility of document B1. Opponent 1 did not file any submissions and informed the Board by letter dated 17 February 2003 that it was not going to participate in the oral proceedings.
- IV. The Board gave its provisional opinion in a communication dated 11 March 2003 and suggested to focus the discussion at the oral proceedings on documents B1 (Anlage 1) if admitted in the proceedings, D1 and D8.
- V. Oral proceedings were held on 6 August 2003, during which the appellant filed amended claims. At the end of the oral proceedings, the requests of the parties were as follows:

- The appellant requested that the decision under appeal be set aside and that the patent be maintained in amended form on the basis of claims 1 to 5 and description pages 1 to 11 submitted at the oral proceedings, figures 1 to 10d as granted.

- The respondent requested that the appeal be dismissed.

VI. The following documents were considered at the oral proceedings and are reported in the present decision:

D1: US-A-3 609 355,

D8: US-A-4 433 690

B1: "MMX Xerographic/Mammographic System"
General Electric brochure, printed in USA under the reference 4347 D, pages 1 to 6 as numbered by opponent 1 on a copy submitted on 11 November 1994.

Anlage 1: Similar to B1, but bearing an internal stamp of receipt dated 20 June 1977. Copy submitted by opponent 2 on 29 November 2000 during the oral proceedings in opposition.

Affidavit by Marianne Popp (Siemens), submitted by opponent 2 with the letter of 18 October 2001.

Letter from Nancy Leiker (General Electric Company), submitted by opponent 1 with the letter of 23 April 1998.

Anlage 5: "Breast Cancer Detection with Sonography and Mammography: Comparison Using State-of-the-Art Equipment" by A. Sickles et al., AJR 140: 843-845, May 1983.

VII. Arguments presented by the parties:

- (i) The appellant submitted that, starting from document D1 which disclosed the precharacterising features of claim 1 the present invention was new and inventive vis a vis the state of the art. None of the cited documents disclosed a mammographic apparatus having a motorized turnable frame part. All the previously known apparatuses were manually adjustable because they were either sufficiently balanced or so designed as to be structurally lighter. Document D8 had to be disregarded since it related to an ultrasound apparatus, by which the problems addressed were of a different nature than those underlying the present invention. Document B1 (Anlage 1) was not a state of the art because its availability to the public, in particular its publication date, had not been established with certainty. Moreover it was not technically relevant since the turnable frame part was not motorized and its axis of rotation did not coincide with the central axis of the breast.

(ii) The respondent submitted that document B1 had to be considered as prior art since it was very likely that the publication date of this brochure and its distribution to the public took place prior to the filing date of the present patent, having regard to the provided evidence. B1 showed different views of a mammographic apparatus, the axis of rotation of which was substantially aligned with the central axis of the breast. Further, the rotating arm was counterbalanced. The provision of a motorization for the rotation of the turnable frame was considered close at hand for a person skilled in the art, the more since counterbalancing means and the use of a motor for facilitating the movements of the x-ray head were known from document D1. Document D8 disclosed the coincidence of the axes in order to solve the same problem as in the present patent of avoiding patient repositioning. Therefore, the subject-matter of claim 1 was obvious with respect to document B1 or to a combination of documents D1 and D8. Claim 1 was also not clear nor complete since, according to the patent's description, for achieving complete counterbalancing of the apparatus the motorization was always associated with the use of a balancing gas spring.

VIII. Claim 1 in suit reads as follows:

"Mammographic apparatus, comprising a frame part (4), on which a turnable frame part (25) is mounted (30), most approximately as turnable around a horizontal axis (b-b), and in which said frame part (25) a source (2) of radiation and means for holding the film cassette

(21) as well as holders (6, 7) for the breast to be photographed, to be placed between the source (2) of radiation and said cassette supporting means, are fitted, which said breast holders comprise a lower holder (7) and an upper holder (6), which are displaceable relative one another so as to press the breast (M) to be photographed between said holders (6, 7), **characterized** in that the lower holder (7) of the breast is fitted in connection with said turnable frame part (25), most appropriately as fixed, and that said lower holder (7) is placed in such a position relative the axis (b-b) of rotation of the turnable frame part (25) that, when the breast (M) to be photographed is pressed from above by means of the displaceable upper holder (6), the central axis (a-a) of the breast substantially coincides with the axis (b-b) of rotation of the turnable frame part (25) wherein the rotation of the turnable frame part (25) of the apparatus is motorized for counterbalancing the apparatus."

Reasons for the Decision

1. The appeal is admissible
2. *Amendments*

Claim 1 is formed from claim 5 as originally filed after deletion of the last feature "or is placed at the proximity of said axis of rotation" and its replacement by the feature "wherein the rotation of the turnable frame part (25) of the apparatus is motorized for counterbalancing the apparatus". This feature is derivable from the application as filed and, therefore,

is allowable. By the disclosures (page 7, lines 11 to 13): "The apparatus in accordance with the present invention requires particular operations to counterbalance the apparatus (described in more detail in relation to Fig. 3)", and (page 8, lines 32 to 33) "The movement of rotation (of the revolving part 25 by a rotating motor 17) is counterbalanced by means of a balancing gas spring 18", the Board infers that counterbalancing is principally achieved by the gas spring. Referring further back to the former paragraph (page 7, lines 15 to 16): "Moreover, the operation of the apparatus is motorized, so that complete counterbalancing is not indispensable or even needed". This means that the motor serves at first a purpose of motorization but it is also used to replace the gas spring partially or in totality. In that latter case the motor is used as unique means for counterbalancing the turnable frame.

It results therefrom that the feature added to claim 1 is implicitly supported by the application as filed and does not extend its subject-matter, in accordance with Article 123(2) EPC.

With respect to the apparatus claim 4 as granted, the deleted feature mentioned above being an alternative, its deletion from the version as granted does not lead to an extension of the claimed subject-matter, in accordance with Article 123(3).

Dependent claims 2 to 5 correspond to claims 8 to 11 of the application as filed or to claims 5 to 8 of the granted patent.

The introductory part of the description was adapted to the content of the amended claim 1 and the passages referring to the method were deleted in conformity with the now restricted scope of the invention.

Therefore, on the formal aspects, all the requirements of the EPC are satisfied.

3. *Admissibility of document B1 (Anlage 1)*

Two copies of the brochure B1 were filed during the opposition proceedings. One by opponent 1 along with its statement of grounds (exemplar with pages and Figures numbered 1 to 6), the other by opponent 2 (referred to as Anlage 1) with a letter dated 27 October 2000 and, again, at the oral proceedings in opposition, bearing a stamp of receipt dated 20 June 1977.

Document B1 has no publication date and is identified only by the reference "4347D, printed in USA". According to the writ of Nancy Leiker, project manager by General Electric Company, the brochure was published sometime between August 1974 and February 1978. The writ, however, is neither dated nor undersigned and, therefore, on its own merits is of poor relevance as evidence. The affidavit by Marianne Popp, dated 17 October 2001, states that as an employee of Siemens A.G. she was a.o. in charge of collecting every piece of information related to x-ray mammography between 1973 and 1983. At this occasion the brochure B1 (Anlage 1) was collected and registered. The date indicated by the stamp of receipt (20 June 1977) corroborates the estimation made by Nancy Leiker.

The Board has no reason to challenge the registration practice at Siemens which is in line with the one in use in documentation departments of many large companies for collecting all kinds of information in relation to the technical field of interest for those companies or their competitors. Moreover, such brochures or leaflets are by nature used for publicity and commercial purposes and as such are to be distributed without restriction to any prospect. On the balance of probabilities, document B1 has to be rated as published and made otherwise available to the public long before the priority date of the patent in suit. Therefore, document B1 is a state of the art under Article 54(2) EPC.

4. *Inventive step*

4.1 The invention relates to a mammographic apparatus of the type described in document D1, comprising a frame part turnable around a horizontal axis for taking axial and lateral x-ray pictures when passing from Figure 1 to Figure 2, respectively. It further comprises a source of radiations and upper and lower holders displaceable relative to one another so as to compress the breast to be photographed therebetween. The lower holder is fixedly mounted to the turnable part as shown on the figures the median axis between the holders, i.e. the central axis of the compressed breast is offset with respect to the horizontal axis 6 of the turnable frame part, with the consequence that the patient has to be shifted and new positioning adjustments have to be made when changing the projection mode of photography.

4.2 The subject-matter of claim 1 differs from the disclosure of document D1 in that, when the breast is pressed, the central axis (a-a) of the breast substantially coincides with the axis (b-b) of rotation of the turnable frame part of the apparatus, wherein the rotation is motorized for counterbalancing the apparatus.

These features represent the solution to the problem set in the patent in suit, according to which (cf. column 2, line 51 to column 3, line 1) the mammographic apparatus of the present invention can be used without having to shift the patient or to adjust the level of the apparatus when moving from one projection or mode of photography to the other while, at the same time, providing a mammographic apparatus which can be automated to a high extent.

Due to the coincidence of the axes, the turnable frame part of the apparatus according to the invention rotates about an axis which does not pass through the centre of gravity (P) of the turnable frame (compare in the patent Figures A, B, and Figures 1a, 1b, respectively). The resulting imbalance of the turnable frame part is compensated by motorizing and counterbalancing the turnable frame. Moreover, the motorization compensates the inertia of the moving parts, thus facilitating the handling of the apparatus.

4.3 Document B1 shows a series of views wherein the axis of rotation of the turnable frame appears to be next to the central axis of the breast (cf. in particular photographs 3/1, 5/1 and 5/2). However, a coincidence of the axes is neither mentioned nor required and cannot be deduced beyond any doubt from the photographs. On page 6, a counterbalanced arm is mentioned for rotation 90° two ways from vertical, however without further detail as to its design or its working. The document is also silent about any motorization of the turnable frame part. Therefore, the disclosure of document B1 is insufficient to suggest or even teach the characterising features of the invention.

Document D8 (cf. Figure 2 and column 3, lines 48 to 55) discloses the coincidence between the axis of rotation 30 of the turnable frame part and the central axis of the breast, in order to allow examination of the breast in various directions without having to move the patient. This document, therefore, addresses one part of the problem set out in the contested patent. However, the apparatus does not mention any motorization or compensation means. As is apparent from the figures, the apparatus is so designed that the structure as a whole is substantially symmetrical with respect to the axis of rotation of the turnable frame and seems to be well balanced, despite an isocentric conception. The handles 26, 28 on the front part are to confirm the manual rotation of the turnable frame. This document, therefore, also fails to suggest the combination as claimed.

Referring back to the closest prior art document D1, the apparatus is provided with a motor and counterbalancing means, but only for vertically moving the x-ray source along the head 7 (cf. column 1, lines 52 to 58 and column 2, lines 48 to 59). Rotation of the head around the pivot 6 is performed manually, however. This appears to be sufficient since, due to the offsetting of the axes (cf. point 4.1 above), the system remains balanced. Therefore, the technical problem underlying the present patent is neither an object in document D1 nor is the solution as claimed suggested by this document, taken either alone or in combination with document D8.

In the Board's judgement, the invention resides in the combination of the claimed features, in particular in the use of a motor, at least partially, as counterbalancing means, in addition to its main function of motorization of an isocentric (unbalanced) mammographic apparatus, in order to avoid repositioning of the patient. This combination is not derivable from the state of the art.

- 4.4 As a consequence, the subject-matter of claim 1 involves an inventive step within the meaning of Article 56 EPC. The remaining claims which depend thereon are also allowable.

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 with the order to maintain the patent in amended form on the basis of claims 1 to 5 and description pages 1 to 11, respectively submitted at the oral proceedings and Figures 1 to 10d as granted.

The Registrar:

The Chairman:

V. Commare

W. D. Weiß