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**Datasheet for the decision
of 24 August 2012**

Case Number: T 0309/08 - 3.2.02

Application Number: 98909046.9

Publication Number: 1006895

IPC: A61B 17/20, A61B 17/32,
A61M 1/00

Language of the proceedings: EN

Title of invention:
Power assisted liposuction and lipoinjection equipment

Patent Proprietor:
Microaire Surgical Instruments, Inc.

Opponents:
Möller Medical GmbH & Co.KG
Nouvag AG

Headword:
-

Relevant legal provisions:
EPC Art. 52(1), 54

Relevant legal provisions (EPC 1973):
-

Keyword:
"Novelty (no)"

Decisions cited:
-

Catchword:
-



Case Number: T 0309/08 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 24 August 2012

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Decision under appeal: Interlocutory decision of the Opposition
Division of the European Patent Office posted
22 January 2008 concerning maintenance of
European patent No. 1006895 in amended form.

Composition of the Board:

Chairman: E. Dufrasne
Members: P. L. P. Weber
C. Körber

Summary of Facts and Submissions

- I. The appeals are against the interlocutory decision of the Opposition Division posted on 22 January 2008 that the patent in amended form according to auxiliary request 1 filed on 9 January 2008 and the invention to which it relates fulfil the requirements of the EPC.
- II. Notice of appeal was filed by Appellant/Opponent 1 on 8 February 2008 and the appeal fee paid on the same day. The statement setting out the grounds of appeal was filed on 28 April 2008.

Notice of appeal was filed by Appellant/Opponent 2 on 19 March 2008 and the appeal fee paid on the same day. The statement setting out the grounds of appeal was filed on 16 May 2008.

Notice of appeal was filed by the Appellant/Proprietor on 1 April 2008 and the appeal fee paid on the same day. The statement setting out the grounds of appeal was filed on 2 June 2008.

- III. Oral proceedings took place on 24 August 2012.

The Appellant/Proprietor requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request filed on 9 January 2008, or, in the alternative, that the patent be maintained on the basis of auxiliary request 1 filed on the same date.

Appellant/Opponent 1 requested that the decision under appeal be set aside and that the patent be revoked.

Appellant/Opponent 2 requested that the decision under appeal be set aside and that the patent be revoked.

IV. The following document is cited in the present decision:

E4: US-A-4735604

V. The arguments of the Appellant/Proprietor can be summarised as follows:

Main request

E4 does not disclose a liposuction handpiece.

The length of the cannula extending from the front end of the housing is too small for the device to be used for liposuction.

The presence of a tube 100, as shown for instance in Figure 2, providing a rinsing or irrigation fluid in the region of the tissues being operated upon for assisting in the removal of tissue fragments makes it impossible to introduce the tip of the instrument under the skin as is typically the case with a liposuction handpiece.

Contrary to what happens in the case of the liposuction handpiece according to the invention which, when used, cuts the tissues to be removed as indicated in paragraph [0040] of the patent specification, the instrument according to E4 chops the tissues to be removed.

The instrument shown in E4 does not have a cannula releasably connected to the portion of the reciprocating member exterior to the housing as required by claim 1.

The range of speeds as required by the claim is not present, as can be seen in column 4, lines 37-38.

The cannula used in the invention must have a rounded tip so as not to injure parts of the body not intended to be operated upon and the cannula shown in E4 does not have such a tip.

The presence of a support structure as depicted in Figure 7 shows that the device disclosed in E4 is too heavy to be used for liposuction, and anyway, during a liposuction operation, the hand movements of the surgeon cannot be restricted by a supporting device.

Auxiliary request 1

Even if E4 discloses a stroke length of the cannula of 2 mm, this is not a disclosure of the interval from 0.1 mm to 6 mm.

VI. The arguments of Appellant/Opponent 1 and Appellant/Opponent 2 can be summarised as follows:

At the time when E4 was published the term "liposuction" was not usual. This term appeared in the profession only years later. It is therefore not significant that this term is not present in E4. However liposuction is included in the concept of biological tissue removal set out in E4.

Main request

E4 discloses a handpiece having all the features to make it suitable for liposuction, and all other features of claim 1 according to the main request are anticipated.

In particular, the biological tissue is removed by cutting or chopping, and by aspiration through the cannula, as is typically the case in a liposuction operation. A cannula having an opening in its axial direction, as disclosed in E4, is clearly adapted for use in liposuction. In any case claim 1 is silent on the nature of the tip of the cannula. The amplitude and the frequency of vibration of the cannula disclosed in E4 fall within the claimed intervals, and the diameter and the lengths of the cannula disclosed in E4 also fall under those usual for liposuction. The cannula is also fixed to a reciprocating member moving towards and away from a front end of a housing part.

Hence, the subject-matter of claim 1 according to the main request is not new over E4.

Auxiliary request 1

It is established case law that when a specific value disclosed in a prior art document falls within a claimed interval, that interval is anticipated. Therefore the subject-matter of claim 1 according to auxiliary request 1 is also anticipated by E4.

VII. Claim 1 according to the main request as filed on 9 January 2008 reads as follows:

"A power assisted liposuction handpiece, comprising:
a housing (12,112,113) having a front end portion;
a reciprocating member (14) connected to said housing (12,112,113) and having a portion exterior to said housing (12,112,113) extending from said front end portion and movable towards and away from said front end portion;
a cannula (10) releasably connected to the portion of said reciprocating member (14) exterior to said housing (12,112,113), and
a vacuum hose engaging member (38) for connecting a vacuum line in fluid communication with said cannula (10), and said reciprocating member (14) is adapted to move toward and away from said housing (12,112,113) by an amount of less than one centimeter as distance the cannula tip travels from its extended to retracted positions in one reciprocal motion and wherein said reciprocating member (14) is adapted to reciprocate at a speed ranging from about 10-100.000 cycles/minute."

Claim 1 according to auxiliary request 1 as filed on 9 January 2008 reads as follows:

"A power assisted liposuction handpiece, comprising:
a housing (12,112,113) having a front end portion;
a reciprocating member (14) connected to said housing (12,112,113) and having a portion exterior to said housing (12,112,113) extending from said front end portion and movable towards and away from said front end portion;

a cannula (10) releasably connected to the portion of said reciprocating member (14) exterior to said housing (12,112,113), and
a vacuum hose engaging member (38) for connecting a vacuum line in fluid communication with said cannula (10), and said reciprocating member (14) is adapted to move toward and away from said housing (12,112,113) by an amount of from 0.1 mm to 6 mm as distance the cannula tip travels from its extended to retracted positions in one reciprocal motion."

Reasons for the Decision

1. The appeals are admissible.
2. Novelty of the subject-matter of claim 1 according to the main request over E4.
 - 2.1 The aim in E4 was to provide an apparatus for removing biological material which is more versatile than the then known instrument having a tip vibrating ultrasonically (column 1, lines 23 to 29: "*This requires the size and weight of the components of the instrument, and in particular the size and shape of the operative tip, to be precisely controlled to ensure resonance and therefore optimum performance. The instrument is not versatile since it must be of a predetermined length which cannot be varied in practice.*")

The then known instrument was also expensive to manufacture and it was necessary to change the tip

quite often because of the wear and tear induced by the high frequency vibrations.

As can be understood from column 6, line 67 to column 7, line 8, E4 essentially proposes solving these problems by the provision of an instrument whose cannula is vibrating at a lower frequency and a larger amplitude:

"Since in the present invention the tip is vibrating at a relatively low frequency in a non-resonant manner, the size of the components of the aspirator, and in particular the length and thickness of the tube, can be varied as desired without affecting the performance of the aspirator. This is very important since it greatly increases the versatility of the aspirator by permitting a variety of tips, and also of lengths of the vibrating tube, to be used so that the aspirator can be employed in many different applications."

More specifically, the instrument disclosed in E4 is meant to be held by the surgeon (column 7, line 33), like that of the prior art, and is generally pistol shaped. The vibrating tube or cannula 36 is guided in a first cylindrical housing part 70 and extends from the front end of it. At the rear part of that housing 70 the tube 36 extends exteriorly of the housing into a bearing housing 30 mechanically linked to the axis of the electrical motor and to the front and rear housing parts. The tube or cannula is fixed to the bearing housing. The end part of the tube extends into a second cylindrical part 80 of the housing connected to a hose 84 of an aspirating system. The bearing housing 30 is located in a U-shaped casing 10 connecting the first cylindrical housing part 70, the second cylindrical

housing part 80 and the housing 4 of the electric motor 6. The upper open end of the casing 10 allows access to the grub screw 38 which fixes the tube or cannula in the bearing housing.

The electric motor is said to rotate at an operating speed of 20000 revolutions per minute, displacing a tube or cannula with an operating tip at low frequency vibration and small amplitude (column 4, lines 26 to 30: *"The vibrating frequency of the tip 102 is around 300 Hz when the electric motor 6 rotates at around 20000 rpm. The amplitude of vibration of the tip 102 is 1 mm when the axis of the drive shaft 8 is off-set 1 mm from the centre of the drive wheel 20."*).

As apparent from the above mentioned paragraph bridging column 6 and column 7, the length of the part extending from the front end of the cylindrical housing part 70 and the length of the housing itself are meant to be adapted to the intended use.

Use of the device in surgery, in particular neurosurgery, and dentistry are mentioned in E4. The nature of the tissues in these two fields is very different, which, again, shows the intended versatility of the device disclosed in this document.

2.2 In the opinion of the Board the subject-matter of claim 1 is anticipated by E4.

At least some embodiments disclosed in E4 clearly fall under the concept of a liposuction handpiece and have the other features claimed.

This is the case when the tube 36 has a length extending from the cylindrical housing part 70 which is sufficient to use the device in a liposuction operation. It is not disputed that the device is power-assisted. The cylindrical housing part 80 has a front end portion from which a reciprocating member (bearing housing 30) extends and is able to reciprocate towards and away from that front end (bearing housing 30 is mounted for sliding movement on bar 88 extending from housing part 80). A cannula (tube 36) is releasably connected to the reciprocating member 30 by screw 38, which is located exterior to the housing (70,10,80). A vacuum hose engaging member 82 for connecting a vacuum line 84 in fluid communication with the cannula is also present. The amplitude of 1 mm disclosed in column 4, lines 28 to 30 corresponds to a stroke length of the tube or cannula of 2mm, hence less than one centimetre, and the frequency of the vibration of the cannula is 300Hz, that is 18000 cycles per minute, hence it falls within the interval of 10 to 100000 cycles per minute claimed.

- 2.3 The Appellant/Proprietor submitted that the device disclosed in E4 is not adapted for liposuction because the part of the tube extending from the front end of the cylindrical housing part 70 is too short, and because there is an irrigation system associated with the aspiration system which cannot be used in liposuction because it cannot be introduced into the body of the patient through the small incision normally made for liposuction.

The Board cannot share this opinion.

First it is to be noted that the term liposuction was not used at the time of publication of E4, which was not contested by the Appellant/Proprietor, so that it has to be assessed whether or not E4 discloses a device having all the features making a liposuction handpiece. As mentioned above, the Board considers that this is the case because the different ranges explicitly or implicitly disclosed in E4 amount to a disclosure of a device having the features of a liposuction handpiece.

More specifically, in the first paragraph of column 7, the length of the cannula is said to have to be adapted to the intended use for many different applications, so that this is a disclosure of a range of lengths including lengths usable for liposuction. E4 explicitly emphasises in column 2, lines 17 to 19, that the dimensions of the apparatus are not shown to scale. It is further to be noted that in claim 1 of the main request itself, there is only an indication of the general field of application (liposuction) with no precise length of the external front part of the cannula.

The diameter of the cannula disclosed in E4 is also typically usable for liposuction. This has not been contested by the Appellant/Proprietor. Furthermore the Board considers that the field of application of neurosurgery, specifically mentioned in E4, is a further indication that the device is usable for liposuction, as the consistencies of the tissues concerned are similar.

The irrigation system does not belong to the key elements of the invention disclosed in E4, as can

easily be deduced from the problem to be solved of avoiding the drawbacks of the state-of-the-art ultrasonic device, and is therefore neither claimed in claim 1 nor mentioned in the paragraph "summary of the invention" of E4. It appears to be an optional system which, therefore, cannot be an element for deciding whether E4 discloses a liposuction handpiece or not.

- 2.4 The Appellant/Proprietor considered that the device according to E4 chopped the tissues, rather than cutting them as the liposuction device according to the patent did.

Such a feature is not claimed in claim 1 according to the main request. Claim 1 is silent on the way the liposuction device operates, in particular on the way the fat tissue is removed. Further, it has to be noted that while chopping is mentioned in column 4, lines 31 to 34, of E4, it is defined in relation to Figure 6 that the tip is tapered to form a cutting edge which facilitates the chopping action on tissues to be removed (column 6, lines 1 to 4). Furthermore in claim 1 of E4 it is claimed that the hollow tubular elongate member has a cutting end. Thus E4 at least discloses both options.

- 2.5 The Appellant/Proprietor further submitted that for liposuction the cannula according to the patent in suit must have a closed tip and a lateral cutting opening close to the tip.

Claim 1 does not specify the nature of the tip of the cannula and the patent itself shows in Figure 10 a

cannula having a sharp tip with an opening in the axial direction of the cannula.

- 2.6 The Appellant/Proprietor also argued that a surgeon would never use a support for a liposuction handpiece as depicted in Figure 7, which was another indication that the handpiece disclosed in E4 was not suitable for liposuction.

In the view of the Board, the support shown in Figure 7 is only an option for the surgeon to use when he has to use the device for a longer period of time, i.e. a number of hours (column 7, lines 31 to 33). This is, however, rather an indication that the surgeon is perfectly able to hold the device without support for shorter periods of time.

- 2.7 Thus, claim 1 according to the main request does not meet the requirements of Article 52(1) EPC, because its subject-matter is not new over E4 within the meaning of Article 54(1) and (2) EPC.

3. Novelty of the subject-matter of claim 1 according to auxiliary request 1 over E4.

- 3.1 Compared with claim 1 according to the main request, claim 1 according to auxiliary request 1 does not include the feature of the range of frequencies in which the cannula is adapted to reciprocate, and the stroke length has been specified more precisely to be from 0.1 mm to 6 mm. All the other features are identical to those in claim 1 of the main request, and are therefore anticipated by E4.

3.2 As already mentioned above, the stroke length disclosed in E4 is 2 mm, and thus falls within the claimed interval, so that this feature too is anticipated by E4.

3.3 The Appellant/Proprietor submitted that since E4 only disclosed the value of 2 mm, it did not anticipate the interval 0.1 mm to 6 mm.

It is well-established case law that, for the assessment of novelty, a specific value falling within a claimed interval anticipates the interval. This is the application of the principle in the examination of novelty that the specific anticipates the general.

3.4 Therefore, claim 1 according to auxiliary request 1 does not meet the requirements of Article 52(1) EPC because its subject-matter is not new over E4 within the meaning of Article 54(1) and (2) EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:

D. Hampe

E. Dufrasne