Case Number: T 0843/08 – 3.2.02
Application Number: 03708466.2
Publication Number: 1489984
IPC: A61B 18/14
Language of the proceedings: EN

Title of invention:
Method and system for treating skin with RF

Applicant:
Syneron Medical Ltd

Opponent:

Headword:

Relevant legal provisions:
EPC Art. 56

Relevant legal provisions (EPC 1973):

Keyword:
"Inventive step (no)"

Decisions cited:

Catchword:

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DECISION of the Technical Board of Appeal 3.2.02 of 22 June 2011

Appellant: Syneron Medical Ltd.
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Decision under appeal: Decision of the Examining Division of the European Patent Office posted 28 November 2007 refusing European patent application No. 03708466.2 pursuant to Article 97(1) EPC.

Composition of the Board:
Chairman: M. Noël
Members: D. Valle
J. Geschwind
Summary of Facts and Submissions

I. The appellant (applicant) lodged an appeal by notice, received on 15 January 2008, against the decision of the Examining Division, posted on 28 November 2007, to refuse the application. The fee for appeal was paid on the same day. A statement setting out the grounds for appeal was received on 8 April 2008, along with amended sets of claims.

II. The application was refused in particular for lack of inventive step having regard to the prior art document:


III. Oral proceedings took place on 22 June 2011.

At the oral proceedings the appellant withdrew its auxiliary requests filed with letter of 13 May 2011 in response to a communication from the Board, and finally requested that the decision under appeal be set aside and that a patent be granted on the basis of a set of claims according to the main request or to one of the first to third auxiliary requests, all filed with the statement of grounds of 8 April 2008.

IV. Claim 1 of the various requests reads as follows:

Main request

"A system for treating skin, comprising:
(a) two RF electrodes (201, 202) configured to apply RF energy to the skin; and
(b) a skin deformer for deforming the skin wherein the
skin deformer comprises:
(i) an applicator (701) configured to be applied to the
skin having a housing (105) such that when applied to
the skin the interior space (106) of the applicator
(701) is completely enclosed;
(ii) a pump (706) for removing air from the space (106)
when the applicator (701) is applied to the skin, so
that a region (108) of skin protrudes out from the
surrounding skin into the interior space (106) of the
applicator (701) between the two electrodes (201, 202)."

First auxiliary request

Claim 1 of the first auxiliary request differs from the
main request by amendments made in section (ii) as
follows (amendments emphasised):

"(ii) a pump (706) for partially evacuating the
interior space (106) when the applicator (701) is
applied to the skin, so that a region (108) of skin
protrudes out from the surrounding skin into the
interior space (106) of the applicator (701) between
the two electrodes (201, 202), the remainder of the
interior space (106) being partially evacuated."

Second auxiliary request

Claim 1 of the second auxiliary request differs from
the main request by the incorporation of the following
section (ii) (amendments emphasised):

"(ii) a pump (706) for partially evacuating the
interior space (106) when the applicator (701) is
applied to the skin, so that a region (108) of skin
protrudes out from the surrounding skin into the
interior space (106) of the applicator (701) between
the two electrodes (201, 202), the remainder of the
interior space (106) being partially evacuated."
"(ii) a gasket (107) for creating a seal between the housing (105) and the skin; and"

between sections (i) and (iii), whereas sections (i) and (iii) are identical to sections (i) and (ii) of the main request, respectively.

Third auxiliary request

Claim 1 of the third auxiliary request combines the above amendments made to the first and second auxiliary requests, i.e. it comprises a section (ii) identical to section (ii) of the second auxiliary request, and a section (iii) identical to section (ii) of the first auxiliary request.

V. The appellant's arguments are summarised as follows.

Regarding the main request, the subject-matter of claim 1 differed from the teaching of D2 principally by the features contained in section (ii).

In D2 the negative pressure was not the result of suction but the result of mechanical forces applied by the device (template) to the skin. The arrows 17 shown in Figures 1 and 2B of D2 represented a positive compression force, producing on the soft tissue to be treated converging and diverging force vectors able to contract (valleys) or distract (peaks) the collagen-containing tissue structures as shown in Figures 7 and 8, with a view to smoothing an irregular skin surface as explained on page 16 of D2.
In D2 there was no mention of a pump, and while a "suction force" was mentioned in relation to the mechanical force, there was no indication of the skin protruding into the interior space of the applicator (template). Therefore, interpreting the mention of a negative pressure as a suction force was the result of hindsight. The suction referred to in D2 was just sufficient to provide an adherent force and hold the skin against the surface of the applicator. The mention of suction ports 13' in Figure 17 was misleading since these ports were used as lumens to provide a cooling medium as explained on page 6 of D2 in relation to Figure 2B.

Moreover the device disclosed in D2 was provided to conform to the shape of a body part and could not be used for any application. This was apparent e.g. from Figure 10D. With respect to D2 the problem underlying the present invention, therefore, was to provide a single system for treating any area of the body with RF energy, thus avoiding the need for different templates for different body parts. According to the claimed subject-matter the skin was caused, by removal of air, to protrude into the interior space of the applicator between two electrodes.

The features added to claim 1 of the first to third auxiliary requests further distinguished its subject-matter over the disclosure of D2. These features, therefore, were neither disclosed nor suggested by the prior art.
Reasons for the Decision

1. The appeal is admissible.

2. Main request - inventive step

With the wording of claim 1 in suit, D2 discloses a system for treating skin, comprising two RF electrodes 18 configured to apply RF energy to the skin (see Figure 1 and page 10, lines 19-21), and a skin deformer for deforming the skin 9 wherein the skin deformer comprises an applicator (template) 12 configured to be applied to the skin having a housing such that when applied to the skin the interior space of the applicator 12 is completely enclosed. This feature results from the mere observation of Figure 1 when the template is brought into contact with the surface of the skin.

Claim 1 is distinguished from document D2 in that the system is provided with a pump for removing air from the space when the applicator is applied to the skin, so that a region of skin protrudes out from the surrounding skin into the interior space of the applicator between the two electrodes (feature (ii) of claim 1).

In fact a suction pump is not explicitly disclosed by D2 and, although the skin layers project downwardly as shown in Figure 1, D2 does not clearly mention or show that said region of the skin protrudes into the interior space of the applicator between the electrodes. Therefore, the subject-matter of claim 1
must be regarded as novel over D2, since novelty has to be assessed strictly.

The problem underlying the above-mentioned distinguishing features is, as can be derived from the application as filed (see page 1, line 16 to page 2, line 3) to improve both the massaging of the skin and the destruction of fat by enhancing heat delivery down to the subcutaneous adipose tissue.

The Board does not accept the appellant's argument by which the problem consists in providing a single system or device for treating any body parts, i.e. parts of any shape since such a problem is not derivable from the application as filed. Therefore there is no basis for such an interpretation.

D2 further discloses that the template (applicator) includes a receiving opening 16 and a mechanical force application surface 14 configured to receive the body structure and to apply a force to the body structure including the skin surface and the underlying tissue (see page 5, lines 11 to 17). Said application surface can, in particular, apply suction in order to create an extension of the soft tissue structure and of the skin surface (see page 8, lines 33 to 35).

It is further specified therein that a variety of mechanical forces, including pressure or extension, can be applied to the tissue and that the pressure force can be a negative pressure creating an extension of collagen-containing tissue (see page 9, lines 4 to 10). Both the mechanical force and the delivery of thermal (RF) energy can be varied (see page 9, lines 10 to 16).
and bipolar electrode applications are usually contemplated (see page 9, line 18). The device 8 for modifying a tissue structure illustrated in Figure 1 may also include a lumen 13', which may be used for the delivery of fluids and gases (see page 5, lines 18 to 20). In other embodiments the pressure source can be a pump or other source of pressurised gas (see page 6, lines 13 to 15).

Therefore, in a case where a negative pressure is applied to the body structure, a suction pump appears to be the usual means immediately available to a person skilled in the art. In such a case, the region of the skin which is surrounded by the receiving opening 16 of the applicator 12 will necessarily protrude into the interior space of the applicator between the electrodes 18, as suggested by the tissue projection illustrated in Figure 1 of D2.

It results therefrom that the functional features recited in section (ii) of claim 1 are implicitly disclosed or suggested by the teaching of D2, having regard to the general knowledge of the skilled person. Moreover, it is observed that, with the exception of the pump, which is a structural but trivial feature of the device, the features (ii) of claim 1 are regarded by the Board as features of using the device which, in accordance with the established case law, are not capable of structurally distinguishing the claimed device from the known device. As a consequence, these features are of little value for assessing the inventive step of the claimed subject-matter as a whole.
Accordingly, the subject-matter of claim 1 of the main request does not involve an inventive step within the meaning of Article 56 EPC.

3. First auxiliary request

The additional feature of claim 1 of the first auxiliary request of "partially evacuating the interior space" of the applicator refers to the use of the device, in particular to the setting of the negative pressure of the pump. This feature, too, fails to structurally distinguish the claimed device. Moreover, the level of the negative pressure to be applied depends on the skin area to be treated and, since the mechanical force provided in D2 is made variable (page 9, lines 10 to 16), the device described therein is also designed for partially evacuating the interior space of the template.

Therefore, the subject-matter of claim 1 of the first auxiliary request is not inventive either.

4. Second auxiliary request

The additional feature of claim 1 of the second auxiliary request of providing a gasket for creating a seal between the housing and the skin is a conventional and constructional measure readily available to a person skilled in the art for the purpose of building up a negative pressure. Since it belongs to the general knowledge of the skilled person, further evidence is not needed. Moreover, the patent application describes no particular merit in this feature of minor
importance. The subject-matter of the second auxiliary request, therefore, does not add anything inventive.

5. Third auxiliary request

Claim 1 of the third auxiliary request is a combination of claim 1 of the first and second auxiliary requests. For the same reasons as above, its subject-matter does not involve an inventive step.

Order

For these reasons it is decided that:

The appeal is dismissed.

The Registrar:                                      The Chairman:

D. Sauter                                          M. Noël