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Datasheet for the decision of 28 April 2010

Case Number: T 0413/07 - 3.2.02

Application Number: 96937892.6

Publication Number: 0866674

IPC: A61B 17/32

Language of the proceedings: EN

Title of invention:
Surgical instrument handpiece and system

Patentee:
SMITH & NEPHEW, INC.

Opponents:
1) arthronet GmbH & Co. KG
2) EFS GmbH & Co. KG
3) Gebr. Brasseler GmbH & Co. KG

Headword:
-

Relevant legal provisions:
EPC Art. 56
RPBA Art. 13

Relevant legal provisions (EPC 1973):
-

Keyword:
"Late-filed auxiliary requests (not admitted)"
"Inventive step (no)"

Decisions cited:
-

Catchword:

-

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Beschwerdekammern | Boards of Appeal | Chambres de recours

Case Number: T 0413/07 - 3.2.02

D E C I S I O N
of the Technical Board of Appeal 3.2.02
of 28 April 2010

Appellant I: (Patent Proprietor)
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Decision under appeal: **Interlocutory decision of the Opposition Division of the European Patent Office posted 15 February 2007 concerning maintenance of European patent No. 0866674 in amended form.**

Composition of the Board:

Chairman: M. Noël
Members: P. L. P. Weber
A. Pignatelli

Summary of Facts and Submissions

I. In its decision posted on 15 February 2007 the Opposition Division decided that account being taken of the amendments according to the first auxiliary request filed by the patent proprietor during the oral proceedings of 4 December 2006, the patent EP-B-0866674 and the invention to which it relates meet the requirements of the EPC.

II. The appellant I (patent proprietor) filed a notice of appeal on 4 April 2007 and the appeal fee was paid on the same day. The statement setting out the grounds of appeal was filed on 23 June 2007.

Appellant II (opponent 01) filed a notice of appeal on 25 April 2007 and the appeal fee was paid on the same day. The statement setting out the grounds of appeal was filed on 13 June 2007.

Opponent 02 (respondent) did not make any submission at the appeal stage.

Opponent 03 filed a notice of appeal on 5 March 2007 and the appeal fee was paid on the same day.
Opponent 03 withdrew its appeal on 3 July 2007.

III. The following documents played a role in the appeal proceedings :

D6 : US-A-4705038
D7 : US-A-3072938

IV. In its statement setting out the grounds of appeal the appellant I requested that the impugned decision be set aside and that the patent be maintained as granted.

On 27 March 2010 appellant I filed auxiliary requests 1 to 6 in preparation for the oral proceedings. Only the support for the amended versions of the claims was mentioned in the letter.

V. By letter of 30 March 2010 appellant II informed the Board that it would not be present at the oral proceedings scheduled for the 28 April 2010.

In its written submissions, appellant II requested that the impugned decision be set aside and that the patent be revoked in its entirety.

VI. Oral proceedings were held on 28 April 2010.

The appellant I requested that the decision be set aside and that the patent be maintained as granted, auxiliarly he requested the maintenance of the patent in amended form according either one of the auxiliary requests 1 to 6 as filed on 27 March 2010.

VII. Claim 1 as granted (main request) reads as follows:

"Apparatus comprising a body configured for insertion into a bore (110) of a surgical handpiece (100), and a latch (319) comprising a resilient member (315) connected to said body and having a latching structure (330) configured to latchingly engage a surface (620) of the surgical handpiece (100) within the bore, characterized in that

said resilient member comprises a cantilevered arm (315) and wherein said latch further comprises a user-manipulable release portion (325) mounted on said cantilevered arm (315)."

Claim 1 according to the first auxiliary request reads as follows:

"Apparatus comprising a body configured for insertion in a bore (110) of a surgical handpiece, and a latch (310) comprising a resilient member (315) connected to the body and having a latching structure (330) configured to latchingly engage a surface of the surgical handpiece (100) within the bore (110), wherein the body is configured as a hub (320) of a surgical instrument and further comprises
an outer member (370) connected to and extending from said body to a tissue receiving opening at a distal end of said outer member (370),
an inner member (375) including at a distal end thereof a surgical tool to cut tissue, said inner member being positioned within the outer member (370) and being rotatable relative to the outer member, and
a drive shaft connected to the inner member (375) for rotating the inner member,
characterized in that
the resilient member (315) comprises a cantilevered arm (315) and wherein the latch (319) further comprises a user-manipulable release portion (325) attached to the cantilevered arm (315)."

Claim 1 according to the second auxiliary request reads as follows:

"Apparatus comprising a body configured for insertion in a bore (110) of a surgical handpiece and a latch (310) comprising a resilient member (315) connected to the body and having a latching structure (330) configured to latchingly engage a surface of the surgical handpiece (100) within the bore (110), wherein the body is configured as a hub (320) of a surgical instrument and further comprises
an outer member (370) connected to and extending from said body to a tissue receiving opening at a distal end of said outer member (370),
an inner member (375) including at a distal end thereof a surgical tool to cut tissue, said inner member being positioned within the outer member (370) and being rotatable relative to the outer member, and
a drive shaft connected to the inner member (375) for rotating the inner member,
characterized in that
a) the resilient member (315) comprises a cantilevered arm (315) and wherein the latch (319) further comprises a user-manipulable release portion (325) attached to the cantilevered arm (315), and
b) wherein the latching structure (330) is spaced from said release portion (325) along a longitudinal axis of said body."

Claim 1 according to the third auxiliary request reads as follows:

"Apparatus comprising a body configured for insertion in a bore (110) of a surgical handpiece and a latch (310) comprising a resilient member (315) connected to the body and having a latching structure (330) configured to latchingly engage a surface of the

surgical handpiece (100) within the bore (110), wherein the body is configured as a hub (320) of a surgical instrument and further comprises
an outer member (370) connected to and extending from said body to a tissue receiving opening at a distal end of said outer member (370),
an inner member (375) including at a distal end thereof a surgical tool to cut tissue, said inner member being positioned within the outer member (370) and being rotatable relative to the outer member, and
a drive shaft connected to the inner member (375) for rotating the inner member,
characterized in that
a) the resilient member (315) comprises a cantilevered arm (315) and wherein the latch (319) further comprises a user-manipulable release portion (325) attached to the cantilevered arm (315), and
b) wherein the latching structure (330) is spaced from said release portion (325) along a longitudinal axis of said body,
c) and wherein the cantilevered resilient arm (315) is radially spaced from an exterior surface of the hub (320)."

Claim 1 according to the fourth auxiliary request reads as follows:

"Apparatus comprising a body configured for insertion in a bore (110) of a surgical handpiece and a latch (310) comprising a resilient member (315) connected to the body and having a latching structure (330) configured to latchingly engage a surface of the surgical handpiece (100) within the bore (110), wherein

the body is configured as a hub (320) of a surgical instrument and further comprises
an outer member (370) connected to and extending from said body to a tissue receiving opening at a distal end of said outer member (370),
an inner member (375) including at a distal end thereof a surgical tool to cut tissue, said inner member being positioned within the outer member (370) and being rotatable relative to the outer member, and
a drive shaft connected to the inner member (375) for rotating the inner member,
characterized in that
a) the resilient member (315) comprises a cantilevered arm (315) and wherein the latch (319) further comprises a user-manipulable release portion (325) attached to the cantilevered arm (315),
b) wherein the latching structure (330) is spaced from said release portion (325) along a longitudinal axis of said body,
c) wherein the cantilevered resilient arm (315) is radially spaced from an exterior surface of the hub (320),
d) and wherein the cantilevered arm extends proximally."

Claim 1 according to the fifth auxiliary request reads as follows:

"Apparatus comprising a body configured for insertion in a bore (110) of a surgical handpiece and a latch (310) comprising a resilient member (315) connected to the body and having a latching structure (330) configured to latchingly engage a surface of the surgical handpiece (100) within the bore (110), wherein

the body is configured as a hub (320) of a surgical instrument and further comprises
an outer member (370) connected to and extending from said body to a tissue receiving opening at a distal end of said outer member (370),
an inner member (375) including at a distal end thereof a surgical tool to cut tissue, said inner member being positioned within the outer member (370) and being rotatable relative to the outer member, and
a drive shaft connected to the inner member (375) for rotating the inner member,
characterized in
a) that the resilient member (315) comprises a cantilevered arm (315) and wherein the latch (319) further comprises a user-manipulable release portion (325) attached to the cantilevered arm (315), and
b) wherein the cantilevered resilient arm (315) is radially spaced from an exterior surface of the hub (320),
c) and wherein said body further comprises a tab (345) that extends radially from an exterior surface thereof and is positioned to engage an opening (625) in the handpiece."

Claim 1 according to the sixth auxiliary request reads as follows:

"Surgical device including an apparatus comprising a body configured for insertion in a bore (110) of a surgical handpiece and a latch (310) comprising a resilient member (315) connected to the body and having a latching structure (330) configured to latchingly engage a surface of the surgical handpiece (100) within

the bore (110), wherein the body is configured as a hub (320) of a surgical instrument and further comprises an outer member (370) connected to and extending from said body to a tissue receiving opening at a distal end of said outer member (370),
an inner member (375) including at a distal end thereof a surgical tool to cut tissue, said inner member being positioned within the outer member (370) and being rotatable relative to the outer member, and
a drive shaft connected to the inner member (375) for rotating the inner member, said handpiece (100) having a proximal end and a distal end, wherein said handpiece (100) includes the bore (110) at the distal end thereof for insertion of said body of said apparatus,
characterized in that
a) the resilient member (315) comprises a cantilevered arm (315) and wherein the latch (319) further comprises a user-manipulable release portion (325) attached to the cantilevered arm (315),
b) wherein said handpiece (100) includes an annular flange (610) located within the bore (110) to latchingly engage said latching structure when said body is inserted into said bore (110) and
c) a slot (605) at the distal end thereof and wherein the user-manipulable release portion (325) is positioned for insertion into said slot (605) when said body is inserted into said bore (110)."

VIII. The arguments of the appellant I (patent proprietor) can be summarized as follows:

First auxiliary request corresponded to the version as maintained by the Opposition Division. Auxiliary requests 2 to 6 basically were identical with the

auxiliary requests filed during the opposition procedure, some linguistic mistakes having been corrected. They did not constitute an amendment of the case pursuant to Article 13(1) RPBA because they were in the proceedings of the first instance.

These requests were filed late in the appeal proceedings since it was not clear what was going to happen in relation to the bankruptcy proceedings involving the appellant II, and additionally there was a settlement discussion going on.

These requests should therefore be admitted into the appeal proceedings.

D6 disclosed the closest prior art, namely an apparatus for use by a surgeon comprising a handpiece and several interchangeable surgical tools.

D7 would not be considered at all by the man skilled in the art as it disclosed a toothbrush, which was far away from a surgical instrument. And even if the man skilled in the art had looked at D7 it would not have recognised any teaching suitable for a surgical instrument handpiece. As a matter of fact it was mentioned in this document that the connection between the toothbrush and the handpiece was easily disconnectable, even by a child. This connection, therefore, could not be suitable for connecting a surgical tool to a surgical handpiece as such an easy disconnection of the surgical tool from its handpiece would be dangerous in an operating room.

The construction was also completely different insofar as in D7 the toothbrush was connected to the moving part in the handpiece. So that even if the man skilled in the art had considered the teaching of this document, a transfer of the same kind of connection into the device according to D6 would mean connecting the surgical tool to the handpiece through the moving parts and not through the fixed parts.

Claim 1 of the main request further explicitly required that the latching structure had an engagement surface cooperating with a surface of the handpiece within the bore of the handpiece, which implied that a tool inserted into the handpiece was connected with the handpiece per se and not that the moving parts, namely the shaft of the tool and the driving shaft inside the handpiece, were connected together. Additionally the feature that the engagement surface should be within the bore was neither disclosed in D7 nor in D6. If anything the engagement surface in D6 was within the wall of the handpiece and not within its bore.

It should further be noted that a surgeon had to wear gloves when using the surgical instrument in the operating room. The invention, by requiring the latching means to be inside the bore, specifically avoided the entanglement of the gloves with any latching means as might be the case when using the device according to D6. In particular the release button according to the invention could be pressed down without pressing it completely into its hole contrary to what was required in the device according to D6.

The use of such gloves was certainly not compulsory or even necessary for a user of a toothbrush as disclosed in D7, which was one more reason why the man skilled in the art would not consider D7.

Appellant II in fact merely used D7 as a shopping list in order to find out the features missing in D6, but such a way of reasoning did not constitute an objective assessment of the inventive step of the claimed subject-matter.

Hence, the subject-matter of claim 1 according to the main request or the first auxiliary request had to be considered inventive.

IX. The arguments of appellant II (opponent 01) can be summarized as follows:

Starting from the closest prior art as described in D6, the invention was obvious in view of one of the other cited documents. More particularly D7 showed a powered toothbrush with interchangeable brushes in which the connection used to connect the brush to the handpiece was exactly the same as the one of claim 1 according to the main and the first auxiliary requests. As a matter of fact this connection had a resilient cantilever arm with a release button on it. In order to remove the brush from the handpiece it was only necessary to flex the cantilever member and then pull the toothbrush holder out of the socket.

The man skilled in the art starting from D6 looking for a better way for connecting one of the surgical tools to the handpiece disclosed in the same document would

consider solutions in neighbouring fields, in particular, it would consider technical solutions it came across in everyday life. The man skilled in the art would thus in an obvious way use the connection disclosed in D7 in the device according to D6 and so come to the claimed invention.

Reasons for the Decision

1. The appeals of the appellant I and appellant II are admissible.

2. Admissibility of auxiliary requests 1 to 6.

According to Article 13(1) RPBA any amendment of a party's case after it has filed its grounds of appeal or reply may be admitted and considered at the Board's discretion. The discretion should be exercised in view of inter alia the complexity of the new subject-matter submitted, the current state of the proceedings and the need for procedural economy.

Auxiliary request 1 corresponding to the patent version as maintained during the opposition proceedings and an appeal having been filed by appellant II against the decision of the Opposition Division this request is automatically included in the appeal proceedings.

Auxiliary requests 2 to 6 were filed without any arguments as to why these requests would be a reaction of appellant I with regard to the ground of lack of inventive step raised by appellant II against the

subject-matter of claim 1 as maintained by the Opposition Division.

As a justification for the late filing, Appellant I explained that there were uncertainties about the issue of the bankruptcy of appellant II and that there were settlement discussions going on as well.

The Board cannot accept these arguments since the first appeal filed against the decision of maintenance in amended form was the one of opponent 03. So that by the time appellant I filed its own appeal, it was already clear that it would probably have to defend its patent beyond what he obtained in opposition proceedings. In the opinion of the Board, appellant I should and could have filed its complete case (including further auxiliary requests) with its own statement setting out the grounds of appeal as required by Article 12(2) RPBA.

The Board, therefore, does not see any reason to admit auxiliary requests 2 to 6 into the proceedings at such a late stage of the appeal proceedings given that without any explanation as to why the requests would overrule the objections with regard to inventive step, it would be up to the Board to find out in which way these requests might improve the position of appellant I or not. It is, further, not equitable to confront the other parties with such late filed requests without any explanations as to their merits.

The Board thus decided to make use of its discretionary power under Article 13(1) RPBA not to admit these requests into the proceedings.

3. Inventive step - Main request

3.1 The parties agree that D6 discloses the closest prior art.

D6 discloses a surgical system for powered surgical instruments of the same type as the ones described in the patent.
On a powered hand piece different types of surgical tools can be mounted according to the needs of the surgeon.
As with the device according to the invention, the system of D6 comprises a hand piece in which a motor is integrated for rotating a drive shaft. Each surgical tool correspondingly includes a hub to be connected to the hub of the hand piece, and a rotating tool to be connected to the drive shaft in the hand piece.

In column 4, lines 3 to 35 of D6, it is described how the selected surgical device 12 is attached to the handpiece 10.
The first paragraph reads:
"Select the desired surgical device, e.g. Shaver/Cutter device 12, bring the handpiece 10 and device 12 together, orienting the handpiece so its key slot 60 can be seen. Orient the device 12 so its key 62 can be seen. Slide the device into the handpiece so that the key enters the slots. Push in until a click is heard. (When it is desired to remove a surgical device, press down on the key and simultaneously draw the device from the handpiece. If suction is being applied, the operator will perceive a slight force holding the components together.)" (emphasis added).

The underlined part of this paragraph shows that the key 62 of the prior art device already is resiliently held in the body 12. It must be pushed down by the user (or by a slope provided on the handpiece 10) to enter the keyslot 60, and when it is in the correct position in the circular part of the slot, a click is heard (which means that the key is pushed up by some kind of spring or resilient means). Similarly, the key must be pushed down to remove the device 12. In this document it is however not described by which technical means the resiliency is obtained and there is no figure showing it.

3.2 From the above it appears that subject-matter of claim 1 according to the main request only differs from the prior art according to D6 by the feature of the means for resiliently holding the key, or resilient member, being a cantilevered arm.

Appellant I considered that the key shown in D6 could not be considered to be a latching structure configured to latchingly engage a surface of the surgical handpiece within the bore as required by the first part of the claim, so that this had to be considered a further difference with the closest prior art. Appellant I considered the latching structure of D6 to have surface engagement within the wall of the handpiece and not within its bore.

The Board does not agree with this finding. The statement in claim 1 that the engagement surface of the handpiece is within the bore does not exclude that the engagement surface is within a hole in the wall forming

the bore, as the surface of such a hole would also be within the bore of the handpiece.

3.3 Starting from the prior art according to D6, the objective problem to be solved is thus nothing other than to provide an alternative construction of the latching structure disclosed in D6.

3.4 Mechanical latching structures including a cantilevered arm are an extremely widespread means used for connecting two pieces together by simple means. Numerous examples of such connections exist in everyday life. One example of such a connection is for instance shown in D7.
D7 shows a powered toothbrush with interchangeable brushes whereby the brushes are fixed to a moving part by means of a latching structure comprising a resilient cantilevered arm 15 having a user manipulable release button 23.
The man skilled in the art would obviously consider such a well known means as one of the possible appropriate ways of connecting the handpiece of D6 to the selected surgical tool.
The Board, therefore, does not see anything inventive in the choice of a cantilevered arm as a suitable latching means.

The Board also does not see any reason why the skilled man might be hindered to use such a construction in a medical environment. In particular, as the latching structure of D6 already comprises a release button or key and some kind of resilient means acting on it, there is no reason why the resilient means could not be

replaced by a cantilevered arm in the device according to D6.

The Board also cannot follow appellant I's argument according to which the particular design of a cantilevered arm having a release portion would be an advantage for surgeons wearing gloves.
The implementation of a cantilevered arm in the latching structure of D6 would not change anything in the external appearance of the handpiece disclosed in D6, the cantilevered arm being positioned inside the handpiece. Hence the surfaces grasped by the surgeon, in particular the release button and the surfaces around it, would remain unchanged. In other words, the provision of a cantilevered arm as a means for resiliently holding the key would not change anything with regard to the possible entanglement of the gloves worn by the surgeon in any part of the hand piece.

Appellant I further considered that, as in the device according to D7 the latching structure is on the moving part, this document would suggest to put the latching structure on the moving part of the surgical handpiece and not on the fixed part.

The Board does not share this opinion. The problem to be solved is to find an alternative construction for the resilient means of the connection described in D6. Since this connection already joins the fixed parts of the hand piece and the selected tool, the Board does not see any reason why the man skilled in the art should decide to place the connection on the moving parts of both the tool and the hand piece, as this would require a complete redesigning of the instrument.

Appellant I further argued that the connection disclosed in D7 is meant to be disconnectable by a child and would thus not be suitable for connecting a surgical tool to a hand piece.

While D7 shows a toothbrush the Board primarily considers D7 to disclose an example of a well known connecting structure. Such well known connecting structures obviously belong to the general knowledge or a person skilled in the art. And it is self-evident that the person skilled in the art will dimension the known resilient cantilevered arm according to the specific intended use.

Hence, the subject-matter according to claim 1 of the main request lacks an inventive step pursuant to Article 56 EPC.

4. Inventive step - auxiliary request

Over the first part of claim 1 according to the main request, the first part of claim 1 according to the first auxiliary request has been amended to emphasise that both the tool and the handpiece comprise a rotating shaft inside an outer member. These additional features of claim 1 according to the first auxiliary request are known and accepted to be known from the closest prior art D6 as well.

The first parts of both claims being known from D6 and the characterising portions of both claims being identical, the reasoning of lack of inventive step developed under point 3 above applies to both claims.

Hence, the subject-matter according to claim 1 of the first auxiliary request lacks an inventive step pursuant to Article 56 EPC.

Order

For these reasons it is decided that:

1. The appeal of the appellant I (patent proprietor) is dismissed.

2. The decision under appeal is set aside.

3. The patent is revoked.

The Registrar: The Chairman:

D. Sauter M. Noël