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## Datasheet for the decision of 21 January 2011

Case Number:
Application Number:
Publication Number:
IPC:
Language of the proceedings: EN
Title of invention:
A flexible expandable stent

## Patentee:

MEDINOL LIMITED
Opponents:

1. Cordis Medizinische Apparate GmbH
2. Boston Scientific Medizintechnik GmbH

Headword:

Relevant legal provisions:
EPC Art. 54, 56
Relevant legal provisions (EPC 1973):

## Keyword:

"Novelty, inventive step (yes)"
Decisions cited:
T 0056/87

## Catchword:

DECISION
of the Technical Board of Appeal 3.2.02 of 21 January 2011

| Appellant: <br> (Patent Proprietor) | MEDINOL LIMITED <br> Kiryat Atidim <br> PO Box 58165 |
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| Tel Aviv 61581 (IL) |  |

Composition of the Board:
Chairman:
M. Noël

Members:
D. Valle
A. Pignatelli

## Summary of Facts and Submissions

I. The appellant (patentee) lodged an appeal by notice received on 3 July 2008 against the decision of the Opposition Division posted on 14 May 2008 to revoke the patent. The fee for the appeal was paid on the same day and a statement setting out the grounds for appeal was received on 24 September 2008.
II. The patent was revoked for lack of novelty under Article 54(2) EPC of the subject-matter of the main request (claims as granted) in consideration of the teaching of:

D5 = EP - A2 - 0540 290, and
for lack of novelty under Article 54(3) EPC of the subject-matter of auxiliary requests 2 and 3 having regard to document:

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D10 = W0 - A1 - 95/31 945.
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III. The appellant requested that the decision under appeal be set aside and that the patent be maintained with the claims as granted (main request) or with the claims according to any one of twelve auxiliary requests filed with the statement of grounds of 24 September 2008. On an auxiliary basis he requested that oral proceedings be arranged, should The Board intend not to allow the main request on the basis of the written submissions.
IV. Both opponents withdrew their oppositions during the opposition proceedings, opponent 2 on 10 October 2005 and opponent 1 on 20 June 2007, respectively.
V. Claim 1 of the main request reads as follows:
"A stent formed of a flat metal tube (30) having in a non-expanded form and in an expanded form a patterned shape, the patterned shape comprising first meander patterns (11) extending in a first direction and second meander patterns (12) extending in a second direction, different from the first direction, wherein the first and second meander patterns comprise loops and are intertwined such that loops $(14,16)$ of each of the first meander patterns (11) is disposed between all neighbouring second meander patterns (12) and that one loop $(18,20)$ of each of the second meander patterns (12) is disposed between all neighbouring first meander patterns (11)."

Claims 2 to 9 are dependent claims.
VI. The appellant argued that the subject-matter of claim 1 as granted was novel over the disclosures of the prior art documents D5 or D10, respectively. More specifically, D5 did not disclose second meander patterns within the meaning of the present patent. Construing second meander patterns by arbitrarily distorting and putting together elements of the first meander patterns of the stent of D5 was in blatant contradiction to the whole teaching of this document and clearly based on hindsight. In Figure 11 of D10, circumferentially extending patterns consisted of diamond shaped cells comprising two neighbouring first meander patterns fixed directly to each other, therefore without loops of a second meander pattern therebetween.

## Reasons for the Decision

1. The appeal is admissible.
2. Main request - novelty
2.1 D5, see in particular Figures 4 and 5, discloses a stent 10 formed of a flat metal tube (paragraph bridging columns 6 and 7) having in a non-expanded form and in an expanded form a patterned shape, the patterned shape comprising first meander patterns 12 extending in a first circumferential direction (vertical direction in the patent in suit) wherein the first meander patterns comprise loops (see "serpentine" column 2, lines 28 - 31 and column 4, line 34).

However, D5 does not disclose second meander patterns extending in a second direction, different from the first direction, let alone second meander patterns comprising loops, intertwined with the first meander patterns such that the loops of each of the first meander patterns are disposed between neighbouring second meander patterns. As a consequence, no loop of the alleged second meander patterns is disposed between all neighbouring first meander patterns.

Accordingly the subject-matter of claim 1 is novel over D5.

This conclusion differs from that of the decision under appeal for the following reasons:

D5 does not disclose second meander patterns. Adjacent first meander patterns 12 of D5 are merely joined together by elongated interconnecting elements or struts 13, see Figure 5 and column 1, line 57; column 2, line 57 and column 4, lines 35-36. These interconnecting elements are straight, they do not have any loops and they are alternately set off from a first circumferential meander pattern to the neighbouring one. Therefore there are no second meander patterns extending in a second direction, different from the first direction of the first meander patterns and no second meander patterns intertwined with the first meander patterns. Furthermore, D5 does not aim at compensating for the longitudinal shrinkage of the stent during its radial expansion as the invention does, see paragraphs [19], [22] and [23] of the present patent.

According to the Case Law of the Boards of Appeal (see in particular (5th edition, I.C.3.1, I.D. 5 and I.D.8.3), a document of the state of the art should be interpreted in its context and in its entirety. Moreover, it is not allowed arbitrarily to isolate parts of the disclosure, including the drawings, in order to derive from them technical information which would be distinct from the integral teaching of the document (T 56/87). Moreover, any ex post facto analysis of a document, i.e. any attempt to misinterpret the disclosure of the prior art so as to distort the proper technical teaching of the disclosure in order to arrive at the claimed subject-matter, should be avoided since this would conceal the real technical contribution of the invention.

In the present case, the first instance's interpretation of Figure 5 of D5, based on the configurations illustrated in Annexes 6 and FS provided by the opponents, is regarded as artificial and unrealistic and, therefore, is not accepted by the Board. In fact, these illustrations result in a distorted deconstruction of Figure 5 of D5 with a view to artificially creating intertwined second meander patterns comprising loops and extending generally longitudinally. However, said loops already belong to the first meander patterns, which is clearly excluded from the combination of features of the stent as presently claimed.
2.2 D10 does not come closer to the subject-matter of claim 1 at issue than D5. The embodiment according to Figures 9a and 9b is similar to that of Figure 5 of D5 in that it comprises first circumferential meander patterns interconnected by straight elements or struts. These figures are no further presented or explained in the description. The embodiment according to Figures 11a and 11b comprises circumferential structures interconnected by loops similar to the loops 18 in the patent in suit. However, these connecting loops are radially offset in relation to each other and all open in the same direction. They do not form second meander patterns within the meaning of the present patent. Furthermore, the structures extending circumferentially consist of rectangular openings which, after expansion of the stent, take a rhomboid form. Therefore these circumferential structures are not composed of sinusoids and therefore do no form first meander patterns in the sense of the invention. Finally, the
embodiment according to Figure 1 of D10 discloses two sets of interwoven metal strands spirally extending in two orthogonal directions. However, only one set of the strands comprises loops and could thus be identified as meander patterns.

Accordingly, the subject-matter of claim 1 of the main request is also novel having regard to the disclosure of D10. Therefore, the requirements of Article 54 EPC are satisfied.
3. Main request - Inventive step

The patent was revoked by the Opposition Division for lack of novelty. Using the discretion conferred on it by Article 111(1) EPC, the Board decides to prosecute further the case on the matter of inventive step.

Since none of the prior art documents currently on file, considered alone or in combination, discloses or suggests the specific combination of features as claimed in order to solve the problem of providing a flexible stent which minimally shrinks in the longitudinal direction during radial expansion, the subject-matter of claim 1 of the main request also involves an inventive step in compliance with Article 56 EPC.

## Order

## For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The European patent is maintained as granted.

The Registrar:
The Chairman:
D. Sauter
M. Noël

