

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHARLES S. TAYLOR and MICHAEL V. MOREJOHN

Appeal 2007-2496
Application 10/096,299
Technology Center 3700

Decided: August 30, 2007

Before TONI R. SCHEINER, DONALD E. ADAMS, and LORA M. GREEN, *Administrative Patent Judges*.

GREEN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 61, 62, 70, and 71.¹ We have

¹ Claims 61-71 are pending, claims 63-68 have been indicated as being allowable, and claim 69 has been objected to as depending from a rejected base claim (Appeal Br. 2).

jurisdiction under 35 U.S.C. § 6(b). Claims 61, 70, and 71 are representative of the claims on appeal, and read as follows:

61. A method of increasing the cardiac performance of a diseased heart, comprising:

 providing a surgical access to a ventricular chamber of the diseased heart;

 providing a preshaped expandable member preshaped to alter an existing geometry of the ventricular chamber of the diseased heart, and having a shape which, when installed and inflated in the ventricular chamber, together with the ventricular chamber more closely approximates the ventricular geometry of a healthy heart compared to the ventricular chamber prior to installing and inflating said preshaped expandable member therein;

 inserting said preshaped expandable member through said surgical access and into said ventricular chamber; and

 inflating said preshaped expandable member to said shape which, together with the ventricular chamber more closely approximates the ventricular geometry of a healthy heart.

70. The method of claim 61, further comprising visually confirming an appropriate degree of expansion of the expandable member effected by said inflating the expandable member.

71. The method of claim 61, further comprising preventing contraction or further expansion of the expandable member after said inflating the expandable member to said shape.

The Examiner relies on the following reference:

Daskalakis US 5,192,314 Mar. 9, 1993

We affirm-in-part.

DISCUSSION

Claims 61, 62, 70, and 71 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Deskalakis.

According to the Examiner, “Daskalakis teaches a method of increasing the cardiac output of an enlarged heart comprising providing a surgical access site to a chamber of the heart; permanently displacing a portion of the volume within the chamber by inserting and inflating an expandable member including 19", [and] closing the access site.” (Answer² 3).

Appellants argue with respect to claim 61 (with which claim 62 stands or falls, as Appellants did not provide separate arguments as to claim 62, *see* 37 C.F.R. § 41.37(c)(1)(vii) (2006)), that “Daskalakis does not disclose (or inherently possess) a preshaped expandable member having a shape which, when installed and inflated in the ventricular chamber, together with the ventricular chamber, more closely approximates the ventricular geometry of a healthy heart.” (Appeal Br.³ 6). According the Appellants, the inflatable balloon of Deskalakis is fluidly connected to a pump, such that the balloon is inflated during each ventricular contraction, and thus must also perform a deflation of the balloon during successive inflation steps (*id.* at 5). Deskalakis, Appellants assert, clearly show that when the balloon is in its inflated state, it extends into the ventricle to form a convex outer surface, in contrast to the concave natural inner walls of the ventricle (*id.* at 6).

In order for a prior art reference to serve as an anticipatory reference, it must disclose every limitation of the claimed invention, either explicitly or inherently. *See In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997). As to claim 61, Deskalkis teaches a method of

² All references to the Answer are to the Examiner’s Answer dated December 18, 2006.

³ All references to the Appeal Brief (Appeal Br.) are to the Appeal Brief dated September 28, 2006.

increasing the cardiac performance of a diseased heart comprising the steps of 1) providing surgical access to a ventricular chamber of the diseased heart (col. 3, ll. 52-55); 2) providing a preshaped expandable member preshaped to alter an existing geometry of the ventricular chamber of the diseased heart (col. 6, ll. 55-66); 3) inserting the preshaped expandable member through said surgical access into said ventricular chamber (col. 3, ll. 55-58); and 4) inflating the preshaped expandable member (col. 6, ll. 55-66). The issue is thus whether Deskalakis teaches a preshaped expandable member having a shape which, when installed and inflated in the ventricular chamber, together with the ventricular chamber more closely approximates the ventricular geometry of a healthy heart compared to the ventricular chamber prior to installing and inflating said preshaped expandable member therein.

Our mandate is to give claims their broadest reasonable interpretation. *In re American Academy of Science Tech Center*, 367 F.3d 1359, 1364, 70 USPQ2d 1827, 1830 (Fed. Cir. 2004). “An essential purpose of patent examination is to fashion claims that are precise, clear, correct, and unambiguous. Only in this way can uncertainties of claim scope be removed, as much as possible, during the administrative process.” *In re Zletz*, 893 F.2d 319, 322, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). The Specification teaches that

a serious complication of cardiomyopathy and other heart diseases is an enlarged (hypertrophic) heart. An enlarged heart is very inefficient at properly pumping blood. A large amount of ventricular "dead space" exists wherein the blood volume of the ventricle is not fully expelled with each contraction of the ventricle. The unexpelled blood reduces the amount of oxygenated blood that is provided to the patient's vascular system and can result in severe complications to the health of the patient. The teachings of the present invention include

devices and methods for reducing the ventricular volume of the heart.

(Specification 31-32.)

Thus, we interpret “a preshaped expandable member having a shape which, when installed and inflated in the ventricular chamber, together with the ventricular chamber more closely approximates the ventricular geometry of a healthy heart compared to the ventricular chamber prior to installing and inflating said preshaped expandable member therein” as an implant that reduces the ventricular volume of the heart.

Appellants argue that “since the inner walls of a ventricular chamber are concave, that a shape of an expandable member that accomplishes a closer approximation of the ventricular geometry of a healthy heart should also have a concave surface.” (Reply Br.⁴ 4.) Appellants claim does not require, however, that the expandable member approximate the geometry of a healthy heart, however, but a geometry that more closely approximates the ventricular geometry of a healthy heart compared to the ventricular chamber prior to installing and inflating said preshaped expandable member. Thus, what is required by the claim is that after implantation, the geometry more closely approximates that of a healthy heart than does the geometry of the diseased heart. That geometry is accomplished by the reduction of ventricular volume, which results in an overall increase in efficiency of the heart (Specification 6). That geometry is achieved by the implant of Deskalakis, as the implant taught by the patent reduces the dead volume in

⁴ All references to the Reply Brief (Reply Br.) are to the Rep[ly Brief dated February 23, 2007.

the ventricles of a diseased human heart (col. 3, ll. 3-5). We therefore affirm the rejection as to claims 61 and 62.

As to claim 70, Appellants argue that Deskalakis does not disclose “visually confirming an appropriate degree of expansion of the expandable member effected by said expandable member.” (Appeal Br. 7.) Deskalakis teaches, however, as noted by the Examiner, evaluating the dead volume through the use of a echo cardiogram (Deskalakis, col. 7, ll. 35-37; Answer 5). We find therefore that Deskalakis teaches all of the limitations of claim 70, and the rejection is also affirmed as to that claim.

Claim 71 stands on a different footing, however. Claim 71 is drawn to the method of claim 61, further comprising preventing contraction or further expansion of the expandable member after said inflating the expandable member to said shape. As noted by Appellants, the inflatable implant of Deskalakis is inflated during each ventricular contraction (Deskalakis, col. 7, ll. 3-8; Appeal Br. 8). Thus, we agree with Appellants that the implant must be deflated between successive inflation steps. Deskalakis, therefore, does not teach preventing contraction or further expansion of the expandable member after said inflating the expandable member to said shape, and the rejection is reversed as to claim 71.

CONCLUSION

We find that the Examiner has established a *prima facie* case that 61, 62, and 70 are anticipated by Deskalakis, and the rejection is affirmed as to those claims. We find, however, that the Examiner has not set out a *prima facie* case of anticipation of claim 71, and the rejection is reversed as to that claim.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

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LAW OFFICE OF ALAN W. CANNON
834 SOUTH WOLFE ROAD
SUNNYVALE, CA 94086