

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MORTON BERTRAM

Appeal 2008-2458¹
Application 10/961,805
Technology Center 3700

Decided: July 10, 2008

Before DONALD E. ADAMS, RICHARD M. LEBOVITZ, and JEFFREY N. FREDMAN, *Administrative Patent Judges*.

FREDMAN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to an acetabular liner for use in hip surgery. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

¹ Oral Hearing held June 17, 2008.

Background

“Revision hip surgery for a loosened, cemented cup is technically straightforward, including revision surgery. However, because cemented cups fail at an unacceptably high rate, reconstructive hip surgeons in this country, and the companies that develop related products, have shifted their efforts to uncemented cups and modular liners” (Spec. 1). The Specification comments that a “dilemma arises when faced with a well-fixed porous ingrowth acetabular shell and a failed modular polyethylene liner” (Spec. 1). According to the Specification, “it has become popular to leave the shell in place and cement in a new liner to the well-fixed ingrowth acetabular shell” (Spec. 1). The Specification notes that “some surgeons have elected to cement the polyethylene liner into an existing shell. To do this, the surgeon has to use a high-speed burr and roughen up the surface of the polyethylene liner so that it may be cemented into the metal shell” (Spec. 2).

Statement of the Case

The Claims

Claims 1-3 and 5-18 are on appeal. We will focus on claim 1, which is representative and reads as follows:

1. An acetabular liner adapted for use with an existing shell in conjunction with revision hip surgery, comprising:
 - a cup-shaped body having an uninterrupted inner surface and an outer surface; and
 - a plurality of raised projections, each extending a predetermined distance from the outer surface to ensure a desired cement mantle thickness when the body is installed in the existing shell.

The prior art

The Examiner relies on the following prior art references to show unpatentability:

Mikhail	U.S. 5,549,701	Aug. 27, 1996
Wang	U.S. 6,638,311 B2	Oct. 28, 2003
Scales	U.S. 3,698,017	Oct. 17, 1972

The issues

The rejections as presented by the Examiner are as follows:

- A. Claims 1-3 and 5-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Mikhail (Ans. 3).
- B. Claims 1-3 and 5-18 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Scales (Ans. 4).
- C. Claims 1, 3, 6-8, 10, and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Wang (Ans. 5).

A. 35 U.S.C. § 102(b) rejection over Mikhail

Appellant argues that

Mikhail does not disclose, teach or suggest a cup-shaped body having ... a plurality of raised projections, each extending a predetermined distance from [its] outer surface to ensure a desired cement mantle thickness when the body is installed in [an] existing shell. When the cup-shaped body of Mikhail is installed into the existing shell of Mikhail, no cement is used.

(App. Br. 5).

The Examiner responds that “the liner of Mikhail is fully capable of fulfilling all claimed functional language; the liner is fully capable of being cemented into an existing shell wherein the raised projections **3** ensure a desired cement mantle thickness” (Ans. 6).

The Examiner also cites MPEP 2114 regarding functional language and argues that “device of Mikhail is ‘adapted for use with an existing shelf’ and fully capable of ‘ensur[ing] a desired cement mantle thickness when installed in the existing shelf’” (Ans. 7).

In view of these conflicting positions, we frame the anticipation issue before us as follows:

Does the acetabular liner of Mikhail satisfy all of the limitations of claim 1?

Findings of Fact

1. Mikhail teaches an “acetabular cub member which is suitable for use in direct cemented implantation in a prepared cavity of an acetabulum or as an insert for a metal shell affixed in a prepared cavity of an acetabulum” (Mikhail, col. 2, ll. 18-21).

2. Mikhail teaches a cup shaped body with an uninterrupted inner surface and an outer surface (Mikhail, fig. 5).

3. Mikhail notes that the “metal shell **14** is cup-shaped and has an interior face **36** with a configuration designed to snugly receive the outermost portion of the exterior face **18** of the acetabular cup member **12**. The shell **14** has an exterior face **38**” (Mikhail, col. 4, ll. 9-12).

4. Mikhail teaches a plurality of raised projections which extend a predetermined distance from the outer surface, noting that in Fig. 5, there are “provided three rows of annular grooves **46** which are substantially perpendicular to the axis X and are separated by ribs **47**.” (Mikhail, Fig. 5; col. 4, ll. 26-28).

5. Mikhail teaches that “bone cement **17** fills in the grooves **46, 48** and **49** and serves to retain the acetabular cup member **12** in the cavity formed in the acetabulum” (Mikhail, col. 4, ll. 34-37).

Discussion of 35 U.S.C. § 102(b) over Mikhail

We agree with the Examiner that Mikhail teaches an article that meets all of the structural requirements of claim 1. Specifically, Mikhail teaches an acetabular liner which has a cup shaped body and a plurality of raised projections (FF 1-4). Mikhail further teaches that cement may be used to attach the liner to the acetabulum (FF 5). The only elements remaining are the statements that the liner is “adapted for use with an existing shell in conjunction with revision hip surgery” and that the projections are at a distance sufficient to “ensure a desired cement mantle thickness when the body is installed in the existing shell”.

In analyzing these statements, we first interpret whether they impart structure or simply represent functional limitations that impart no specific structure. We give these phrases their broadest reasonable interpretation. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000) (“During examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.”).

In our opinion, the “adapted for use” and “to ensure a desired . . . thickness when the body is installed” language represents a functional recitation and functional language. It is “well settled that the recitation of a new intended use for an old product does not make a claim to that old product patentable.” *In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). Thus, functional limitations directed to the intended use of a product claim do not serve to distinguish the claimed product from prior art products

inherently capable of performing the claimed function. *See id.* at 1478-79 (holding that a prior art apparatus meeting all claimed structural limitations was anticipatory because it was inherently capable of performing the claimed function).

We are not persuaded by Appellant's argument that Mikhail does not anticipate because "when the cup-shaped body of Mikhail is installed into the existing shell of Mikhail, no cement is used. When the cup-shaped body of Mikhail is installed directly into an acetabulum, the cement is intentionally irregular with an inconsistent thickness" (App. Br. 5). This argument relies upon the method by which the device is inserted and does not depend upon any structural feature of the device of claim 1.

We affirm the rejection of claim 1 under 35 U.S.C. § 102(b) over Mikhail. Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of claims 2-3 and 5-18 as these claims were not argued separately.

B. 35 U.S.C. § 102(b) rejection over Scales

Appellant argues that in Scales, the "cement, shown at 11, clearly has no desired thickness whatsoever" (App. Br. 5). Appellant further argues that "[w]hen the cup-shaped body of Scales is installed into the existing shell of Scales, no cement is used. When the cup-shaped body of Scales is installed directly into an acetabulum, the cement is intentionally irregular with an inconsistent thickness. Accordingly, *prima facie* anticipation has not been established" (App. Br. 6).

The Examiner responds that "[a]ll structurally [sic] limitations have been met; appellant has failed to distinguish the apparatus in terms of structure as required in MPEP 2114. Additionally, the body 1 of Scales is

fully adapted of being installed into an existing shell wherein the projections 3 ensure a desired cement mantle thickness” (Ans. 8).

In view of these conflicting positions, we frame the anticipation issue before us as follows:

Does the acetabular liner of Scales satisfy all of the limitations of claim 1?

Findings of Fact

6. Scales teaches “a prosthetic acetabular device comprising a generally hemispherical cup having a plurality of annular ribs formed around its outer surface” (Scales, col. 1, ll. 24-26).

7. Scales teaches that the inner surface is uninterrupted (Scales, fig. 3).

8. Scales teaches a plurality of raised projections extending a predetermined distance from the outer surface (Scales, fig. 3).

Discussion of 35 U.S.C. § 102(b) over Scales

We agree with the Examiner that Scales teaches an article that meets all of the requirements of claim 1. Specifically, Scales teaches an acetabular liner which has a cup shaped body and a plurality of raised projections (FF 6-8). The only elements remaining are the statements that the liner is “adapted for use with an existing shell in conjunction with revision hip surgery” (Claim 1) and that the projections are at a distance sufficient to “ensure a desired cement mantle thickness when the body is installed in the existing shell” (Claim 1).

As we already discussed *supra*, functional limitations directed to the intended use of a product claim does not serve to distinguish the claimed product from prior art products inherently capable of performing the claimed

function. *See Schreiber* at 1478-79 (holding that a prior art apparatus meeting all claimed structural limitations was anticipatory because it was inherently capable of performing the claimed function).

We are not persuaded by Appellants argument that “[w]hen the cup-shaped body of Scales is installed into the existing shell of Scales, no cement is used. When the cup-shaped body of Scales is installed directly into an acetabulum, the cement is intentionally irregular with an inconsistent thickness. Accordingly, *prima facie* anticipation has not been established” (App. Br. 6). This argument relies upon the method by which the device is inserted and does not depend upon any structural feature of the device of claim 1.

We affirm the rejection of claim 1 under 35 U.S.C. § 102(b) over Scales. Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of claims 2-3 and 5-18 as these claims were not argued separately.

C. 35 U.S.C. § 102(b) rejection over Wang

Appellant argues that “elements 5 and 6 of Wang actually *define an interruption*, and not the lack of one” (App. Br. 7) while “Claim 1 was amended to include the limitation of a ‘cup-shaped body having an uninterrupted inner surface and an outer surface’” (App. Br. 6). Appellant quotes Wang, “[t]he element therefore comprises a substantially part-spherical wall having a rim 13 which is interrupted by a shaped opening to provide the two spaced arms 5 and 6' ('311 Patent, 2:66-67)” (App. Br. 7).

The Examiner responds that “Appellant has not given any special definition to the language ‘cup-shaped body’. It is the Examiner's duty to give the language its broadest reasonable interpretation. It is the Examiner's

position that the cup-shaped body 1 is uninterrupted between elements 5 and 6” (Ans. 8).

In view of these conflicting positions, we frame the anticipation issue before us as follows:

Does the acetabular liner of Wang satisfy all of the limitations of claim 1?

Findings of Fact

9. Wang teaches a “a cementless prosthetic bearing element according to the invention comprises an acetabular cup 1” (Wang, col. 2, ll. 23-25).

10. Wang teaches that the “bearing component can be in the form of a cementless bearing element having an outer surface which includes a number of raised engagement features” (Wang, col. 1, ll. 60-62).

11. Wang teaches that “the element could be substantially hemispherical and merely carry a thin splitting line or slit to provide the two separate arms 5 and 6” (Wang, col. 2, ll. 57-59).

12. The Specification does not use the word “uninterrupted” and provides no definition for this term.

Discussion of 35 U.S.C. § 102(b) over Wang

We agree with the Examiner that Wang teaches an article that meets all of the requirements of claim 1. Specifically, Wang teaches an acetabular liner which has a cup shaped body and a plurality of raised projections (FF 9-11). The argued difference for Wang is whether Wang teaches an “uninterrupted” inner surface.

In analyzing the claim language, we give these phrases their broadest reasonable interpretation. *See, e.g., In re Hyatt*, 211 F.3d 1367, 1372 (Fed.

Cir. 2000) (“During examination proceedings, claims are given their broadest reasonable interpretation consistent with the specification.”). While Appellant appears to understand that the word “uninterrupted” as not permitting “a shaped opening” in the inner surface (*see* App. Br. 7), the more reasonable interpretation of an “interruption” in the context of the claim is the presence or absence of raised projections. The Specification does not provide any insight into the word “uninterrupted” (FF 12). The claim indicates that the inner surface is “uninterrupted” and that there is also an “outer surface” (Claim 1). The outer surface has “a plurality of raised projections” (Claim 1). Thus, when determining what constitutes an interruption of a surface in the context of claim 1, a raised projection is reasonably interpreted as being the required element for an interruption, since that is the difference between the inner surface, which is uninterrupted, and the outer surface, which lacks that limitation. In our opinion, the plain language of the claim, as interpreted in the context of the claim, supports the position of the Examiner.

We affirm the rejection of claim 1 under 35 U.S.C. § 102(b) over Wang. Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of claims 3, 6-8, 10, and 12 as these claims were not argued separately.

CONCLUSION

In summary, we affirm the rejection of claim 1 under 35 U.S.C. § 102(b) over Mikhail. We also affirm the rejection of claim 1 under 35 U.S.C. § 102(b) over Scales. We also affirm the rejection of claim 1 under 35 U.S.C. § 102(b) over Wang. Pursuant to 37 C.F.R. § 41.37(c)(1)(vii)(2006), we also affirm the rejections of claims 2-3 and 5-18 as these claims were not argued separately.

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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)(1)(iv)(2006).

AFFIRMED

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