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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ZVIKA GILAD and YANIV BIRNBOIM

Appeal 2012-010087
Application 11/528,627
Technology Center 2400

Before THU A. DANG, JAMES R. HUGHES,
and GREGORY J. GONSALVES, *Administrative Patent Judges*.

DANG, *Administrative Patent Judge*.

DECISION ON APPEAL

I. STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from a Final Rejection of claims 1-5, 7-18 and 20-21 (App. Br. 1). Claims 6 and 19 have been canceled (App. Br. 15 and 17). We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

A. INVENTION

Appellants' invention is directed to a system and method for imaging a body lumen using a device with a centerline; wherein, the center of gravity of the device is displaced from the centerline of the device having a radius of curvature (Abstract).

B. ILLUSTRATIVE CLAIM

Claim 1 is exemplary:

1. An imaging device for imaging a body lumen, wherein the device comprises:

a center of gravity, and

a housing having a non-straight centerline, the centerline having a radius of curvature;

wherein the center of gravity of the device is displaced from the centerline; and

wherein the housing has a curved shape substantially defined by the curvature of the centerline.

C. REJECTIONS

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Mizuno	US 2002/0198439 A1	Dec. 26, 2002
Iddan	US 2005/0004474 A1	Jan. 06, 2005
Horn	US 2006/0183993 A1	Aug. 17, 2006
Swain	US 2008/0312502 A1	Dec. 18, 2008 (provisionally filed Dec. 02, 2005)
Gat	US 2009/0105537 A1	Apr. 23, 2009 (PCT filed Jan. 01, 2006)

Claims 1, 2, 7, and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iddan in view of Horn.

Claims 3, 4, 5, and 11-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iddan in view of Horn and Mizuno.

Claims 9 and 10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Iddan in view of Horn and Swain.

Claims 14 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Swain in view of Iddan and Horn.

Claims 16, 17, and 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Swain in view of Iddan, Horn, and Mizuno.

Claims 20 and 21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Swain in view of Iddan, Horn, and Gat.

II. ISSUES

The dispositive issues before us are whether the Examiner has erred in determining that:

1. the combination of Iddan and Horn teaches or would have suggested an imaging device having “a housing having a *non-straight*

centerline, the centerline having a radius of curvature” (claim 1, emphasis added) and

2. Swain is available as prior art against this application under 35 U.S.C. § 103(a) in light of § 103(c) since the present application and the Swain reference were not commonly owned at the time the present invention was made.

III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

Iddan

1. Iddan discloses an autonomous, ingestible imaging capsule 10 having a housing which may be inserted into a patient’s body lumen (Fig. 2A; ¶ [0027]).

Horn

2. Horn discloses a swallowable in-vivo sensing or imaging device having a capsule shape or other shapes, such as a tubular, spherical, conical, peanut, or other suitable shapes (¶ [0030]).

Swain

3. Swain discloses an in-vivo sensor made of shape memory materials which are capable of conformational change into various configurations in response to changes in temperature or sound; wherein, different natural or induced in-vivo environments having different temperatures (or sounds) can be used to deflect the material in various directions thereby achieving flexibility and enabling the device to have a wide angle of view of the body lumen (¶ [0062]).

IV. ANALYSIS

Claims 1, 2, 7, and 8

Appellants contend that “Horn does not disclose or even contemplate a device with a ‘centerline having a radius of curvature,’” because “the shape of Horn’s device may be peanut, tubular, spherical or conical, and the centerline for each of those shapes is linear (i.e., straight), not curved” (App. Br. 5). Appellants argue that “that a person having ordinary skill in the art would not interpret ‘peanut shape’ as teaching the actual nut inside the peanut shell;” rather, one would interpret peanut shape to mean “the shape of a peanut shell [which] is elongated and linear with two bulbous ends defined by a pinched midsection” (App. Br. 6). Appellants contend further that “the phrase ‘other suitable shapes’ directly modifies each of the named shapes preceding it and, therefore, necessarily includes only shapes having linear centerlines and does not suggest a shape having a centerline having a radius of curvature” (App. Br. 7).

However, the Examiner finds that Horn “teaches some in-vivo devices may be peanut[-]shaped, which has a centerline having a radius of curvature and includes non[-]capsule shaped devices” (Ans. 19-20). The Examiner notes that “reference to a peanut shape and the statement ‘or other suitable shapes,’ ... would have suggested to one of ordinary skill in the art other shapes such as a cashew shape that also has a centerline having a radius of curvature, and other non-linear shapes” and that “Horn states nothing that suggests that the in-vivo devices are restricted or limited to devices having only a straight centerline” (Ans. 20).

We give the claim its broadest reasonable interpretation consistent with the Specification. *See In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir.

1997). Claim 1 does not define “non-straight centerline” other than the centerline has a “radius of curvature” (claim 1). Thus, we give “a housing having a non-straight centerline, the centerline having a radius of curvature” its broadest reasonable interpretation as a housing having a curved centerline, as consistent with the Specification and as specifically defined in claim 1.

Iddan discloses an ingestible imaging capsule having a housing for insertion into a patient (FF 1). We find that ingestible imaging capsule comprises a housing. That is, we find that Iddan’s ingestible imaging capsule comprises “a housing having a ... centerline” (claim 1).

In addition, Horn discloses a swallowable in-vivo sensing/imaging device having a capsule shape or other shapes, such as a tubular, spherical, conical, peanut, or other suitable shapes (FF 2). We find no error in the Examiner’s finding that a housing having a peanut shape comprises a housing having a curved centerline. That is, we find that Horn’s in-vivo imaging device comprises “a housing having a non-straight centerline, the centerline having a radius of curvature” (claim 1).

In view of our claim construction above, we find that the combination of Iddan and Horn at least suggests providing “a housing having a non-straight centerline, the centerline having a radius of curvature,” as required by claim 1.

Accordingly, we find that Appellants have not shown that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) over Iddan in view of Horn. Further, claims 2, 7, and 8 (depending from claim 1), which have not been argued separately, fall with claim 1.

Claims 3, 4, 5, and 11-13

Appellants argue that claims 3, 4, 5 and 11-13 are patentable over the cited prior art for the same reasons asserted with respect to claim 1 (App. Br. 7 and 10).

As noted *supra*, however, we find that the combined teachings of Iddan and Horn *at least suggest* all the features of claim 1. We therefore affirm the Examiner's rejection of claims 3, 4, 5 and 11-13 under 35 U.S.C. § 103 over Iddan in view of Horn and Mizuno for the same reasons expressed with respect to claim 1, *supra*.

Claims 9, 10, 14-18, 20, and 21

Appellants contend that "Swain is disqualified from being used as a reference against the claims of this application under 35 U.S.C. § 103(c), because Swain is available as prior art against this application under 35 U.S.C. § 102(e) but was also commonly assigned with this application at the time that the invention was made" (App. Br. 8). Appellants note that "Swain is a U.S. National Stage Patent Application having a 35 U.S.C. § 371(c)(1), (2), (4) filing date of August 5, 2008 based on PCT International Patent Application No. PCT/IL2006/001392, filed December 3, 2006, claiming priority to U.S. Provisional Application Nos. 60/801,387, filed May 19, 2006, and 60/741,465, filed December 2, 2005" (App. Br. 11-12).

However, the Examiner finds that "Appellant[s] ha[ve] failed to provide any evidence supporting that all requirements of this statute have been met," since "35 U.S.C. § 103(c) requires that the subject matter and the claimed invention were, *at the time the claimed invention was made, owned by the same person* or subject to an obligation of assignment to the same person" (Ans. 21-22, emphasis added). According to the Examiner, for the

Swain reference, “an assignment to Given Imaging Ltd. was executed by one inventor on 07/26/2008 and the other inventor on 08/04/2008 and the assignment recorded on 08/05/2008” while for “the present invention, ... an assignment to Given Imaging Ltd. was executed by both inventors on 09/28/2006 and recorded on 02/21/2007” (*id.*).

In the Reply Brief, Appellants contend “that, while the assignment of rights in each of the present invention and the Swain reference was recorded at different times, at the time the present invention was made, *both the present invention and the Swain reference were subject to an obligation of assignment to the same person, i.e., Given Imaging Ltd.*” (Reply Br. 5, emphasis added).

After reviewing the record on appeal, we agree with the Examiner’s conclusion that “Appellant[s] ha[ve] failed to provide any evidence supporting that all requirements of this statute have been met” (Ans. 21). In particular, although Appellants note that “at the time the present invention was made, both the present invention and the Swain reference were subject to an obligation of assignment to the same person, i.e., Given Imaging Ltd.” (Reply Br. 5), we note that Appellants have failed to support such with evidence using either an affidavit or declaration submitted under 37 CFR § 1.132 for the purpose of traversing grounds of rejection which is responsive to the rejection, presenting sufficient facts to overcome the rejection.

We also find no error in the Examiner’s conclusion that claim 9 would have been obvious over the cited references. Claim 9 does not define “activatable shape memory material” other than it is “adapted for changing the orientation of the centerline between being non-straight and being

substantially straight” (claim 9). That is, claim 9 merely requires that the material is “adapted to” change orientation of the centerline from straight to non-straight. We find such “adapted to” language to merely represent a statement of intended use of the material. An intended use will not limit the scope of the claim because it merely defines a context in which the invention operates. *Boehringer Ingelheim Vetmedica, Inc. v. Schering-Plough Corp.*, 320 F.3d 1339, 1345 (Fed. Cir. 2003). Thus, we conclude that claim 9 merely requires that the material is capable of performing such intended use.

Accordingly, we give “the housing comprises activatable shape memory material adapted for changing the orientation of the centerline between being non-straight and being substantially straight” its broadest reasonable interpretation as the housing comprises material capable of changing shape and orientation of the centerline between linear and non-linear.

Swain discloses an in-vivo sensor made of shape memory materials which are capable of being bent into various configurations in response to changes in temperature or sound (FF 3). We find that in-vivo sensor made of shape memory materials includes a housing made of material that is capable of changing the orientation of the centerline between being non-linear and linear. That is, we find that Swain’s in-vivo sensor comprises “the housing compris[ing] activatable shape memory material adapted for changing the orientation of the centerline between being non-straight and being substantially straight” (claim 9).

We therefore affirm the Examiner’s rejection of claims 9, 10, 14, and 15 under 35 U.S.C. § 103 over Iddan in view of Horn and Swain; of claims 16-18 under 35 U.S.C. § 103 over Swain in view of Iddan, Horn, and

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Mizuno; and of claims 20 and 21 under 35 U.S.C. § 103 over Swain in view of Iddan, Horn, and Gat.

V. CONCLUSION AND DECISION

The Examiner's rejection of claims 1-5, 7-18 and 20-21 under 35 U.S.C. § 103(a) is affirmed.

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).

AFFIRMED

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