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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GUNTER GOMOLL, GUNTHER HAHN, MARIO KAISER,
HANS-MARKUS ROTH, and MANFRED STROBEL

Appeal 2011-005555
Application 10/926,421
Technology Center 1700

Before CHUNG K. PAK, CHARLES F. WARREN, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*

DECISION ON APPEAL

The named inventors (hereinafter “Appellants”)¹ appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1 through 10 and 17 through 26, all of the claims pending in the above identified application. We have jurisdiction under 35 U.S.C. § 6(b).

¹ Appellants identify the real party in interest as “BSH Bosch” under “Siemens Hausgeräte GmbH.” (*See* Appeal Brief filed September 16, 2010 (“App. Br.”) at 3.

STATEMENT OF THE CASE

The subject matter on appeal is directed to “an inner part for a refrigerating device.” (*See* Spec. 1, ll. 16-17.) According to page 1, lines 17 through 21, of the Specification:

Such an inner part is understood here as meaning any desired individual part of the refrigerating device that forms part of the delimitation of the cooled interior space of the refrigerating device or is fitted in this interior space.

In the “Preferred Embodiment of the Invention” section of the Specification, “[a] refrigerating device” is said to include, for example, a refrigerator. (*See* Spec. 6, l. 10.) Details of the appealed subject matter are recited in illustrative independent claims 1, 17, 19, 20, and 22 reproduced below from the “CLAIMS APPENDIX” in the Appeal Brief:

1. An inner part for a refrigerating device, comprising:

a body having a surface with a finish that inhibits the growth of microbes and/or fungi.

17. An inner part for use in a refrigerating device, the part comprising:

a backing piece deformed from an initial shape to a final shape, the backing piece being in a solid state in its initial shape and its final shape; and

a layer applied to the backing piece, the layer including a substance that inhibits the growth of microbes and/or fungi.

19. An inner part for use in a refrigerating device, the part prepared by a process comprising:

producing first granules that include a plastic material and a substance that inhibits the growth of microbes and/or fungi; and

injection molding the first granules to form the part.

20. The inner part according to claim 19, further comprising:

producing substantially pure granules that are substantially free of the substance that inhibits the growth of microbes and/or fungi; and

mixing the first granules with the substantially pure granules before the first granules are molded to form the part.

22. The inner part according to claim 21, wherein the first granules have a grain size that is substantially identical to a grain size of the substantially pure granules.

(See App. Br. 13-16 (Claims App'x).)

Appellants seek review of the following grounds of rejection maintained by the Examiner in the Answer:

- I. Claims 17 and 18 under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement;
- II. Claims 1 through 10 and 17 through 19 under 35 U.S.C. § 102(b) as anticipated by the disclosure of Barry;²

² International Application WO 00/64259 A1 published under the Patent

- III. Claims 20 through 22 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Barry and Hagiwara;³ and
- IV. Claims 23 through 26 under 35 U.S.C. § 103(a) as unpatentable over the combined teachings of the admitted prior art,⁴ Barry and Solomon.⁵

(See App. Br. 4-5, Reply Brief filed January 10, 2011 (“Reply Br.”) at 4; and Examiner’s Answer mailed November 16, 2010 (“Ans.”) at 3-10.

DISCUSSION

I. 35 U.S.C. § 112, first paragraph

The Examiner asserts at page 4 of the Answer that:

Claim 17 recites a “backing” piece and the term “solid state” which lacks support in the specification. The general concept of the backing piece being solid before and after deformation also does not have support.

On the other hand, Appellants contend that page 4 of the Specification as originally filed provides written descriptive support for such terms in such context.

Cooperation Treaty in the name of Freedman et al. on November 2, 2000. We refer it as “Barry” since both the Examiner and Appellants refer to it as “Barry,” the last of the three inventors listed in this International Application.

³ U.S. Patent 4,775,585 issued to Hagiwara et al. on October 4, 1988.

⁴ Appellants’ admission at pages 5-7 of the Specification according to the Examiner at page 9 of the Answer.

⁵ U.S. Patent 4,999,210 issued to Solomon et al. on March 12, 1991.

Thus, the dispositive question is:

Has the Examiner reversibly erred in finding that the Specification, as originally filed, does not provide written descriptive support for deforming a “backing” piece from an initial shape to a final shape with the backing piece being “solid state” in its initial and final shapes as required by claims 17 and 18 within the meaning of 35 U.S.C. § 112, first paragraph? On this record, we answer this question in the affirmative.

The test for determining compliance with the written description requirement of 35 U.S.C. § 112, first paragraph, for later claimed subject matter is whether the disclosure of the application as originally filed reasonably conveys to the artisan that the inventor had possession of the later claimed subject matter, *rather than the presence or absence of literal support in the specification for the claim language*. See *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F. 3d 1336, 1351 (Fed. Cir. 2010) (*en banc*); *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64 (Fed. Cir. 1991); *In re Kaslow*, 707 F.2d 1366, 1375 (Fed. Cir. 1983). It is the Examiner’s burden to establish a prima facie case of non-patentability based on the written description requirement by presenting evidence or reasons establishing why persons skilled in the art would not recognize in the original disclosure a description of the invention defined by the claims. *In re Alton*, 76 F.3d 1168, 1175 (Fed. Cir. 1996).

Here, as correctly stated by Appellants, the Specification, as originally filed, describes applying a surface layer to a work piece by dipping the work

piece in a surface layer forming material or brushing, spraying, or laminating a surface layer forming material onto the work piece and deforming the work piece to a desired shape useful as an inner part of a refrigeration device. (App. Br. 5 and Spec. 4.) Implicit in this written description in the original Specification is that a solid work piece is used as a backing piece for the surface layer and is deformed to form a final desired shape in solid state, i.e., an inner part of the refrigeration device. (App. Br. 5 and Spec. 4.) It follows that the Examiner has reversibly erred in finding that the Specification, as originally filed, does not reasonably convey deforming a “backing” piece from an initial shape to a final shape with the backing piece being “solid state” in its initial and final shapes as required by claims 17 and 18 within the meaning of 35 U.S.C. § 112, first paragraph.

Accordingly, we reverse the Examiner’s rejection of claims 17 and 18 under 35 U.S.C. § 112, first paragraph, as lacking written descriptive support for the presently claimed subject matter in the application disclosure as originally filed.

II. 35 U.S.C. § 102(b)

“Anticipation [35 U.S.C. § 102(b)] requires the presence in a single prior art disclosure of all elements of a claimed invention arranged as in the claim.” *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 1548 (Fed. Cir. 1983). “Anticipation is a question of fact” *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1363 (Fed. Cir. 2004), citing *In re Hyatt*, 211

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F.3d 1367, 1371-72 (Fed. Cir. 2000); *see also In re Aoyama*, 656 F.3d 1293, 1296 (Fed. Cir. 2011).

In rejecting claims 1 through 10 and 17 through 19 under 35 U.S.C. § 102(b), the Examiner finds that Barry discloses an ice chest cooler for cooling objects, such as food. (Ans. 4 and Barry, 3-4.) According to the Examiner, Barry teaches that the body of the ice chest cooler is made of a material containing antimicrobial properties. (Ans. 4 and Barry, 3, 4, and 7.) In particular, Barry discloses that the body of the ice chest cooler can be made with a foam body containing antimicrobial agents or a foam body having an inner surface layer containing antimicrobial agents, with the foam body or the foam body having the inner surface layer formed in a mold. Barry states at page 4, lines 1-7, that:

In accordance with the invention, at least the inner surface of the ice chest base compartment is to contain an inorganic antimicrobial agent. The inner surface of the chest base compartment is to be contacted by objects, such as food or the hand of the chest user. Since the base inner surface contains the antimicrobial agent the desired action of killing bacteria or reducing its growth rate is accomplished. The inner surface of the chest lid also can be provided with the inorganic antimicrobial agent, if desired.

With respect to claims 1, 2, 4, and 6 through 10, Appellants only contend that Barry does not teach the phrase “an inner part for a refrigerating device” recited therein. (App. Br. 6)

Thus, the dispositive question is: Has the Examiner reversibly erred in finding that Barry teaches the limitation “an inner part for a refrigerating

device” recited in claims 1, 2, 4, and 6 through 10? On this record, we answer this question in the negative.

It is well settled that in making a patentability determination, analysis must begin with the question, “what is the invention claimed?” since “[c]laim interpretation, . . . will normally control the remainder of the decisional process.” *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567-68 (Fed. Cir. 1987). During prosecution of a patent application, the PTO must give claims their broadest reasonable construction consistent with the specification. . . . Therefore, we look to the specification to see if it provides a definition for claim terms but otherwise apply a broad interpretation.

See In re Icon Health & Fitness, Inc., 496 F.3d 1374, 1379 (Fed. Cir. 2007). “It is the applicants’ burden to precisely define the invention, not the PTO’s.” *In re Morris*, 127 F.3d 1048, 1056 (Fed. Cir. 1997).

Here, the Specification, at page 1, lines 17 through 21, defines the limitation “inner part for a refrigerating device” recited in claims 1, 2, 4, and 6 through 10 as follows:

Such an inner part is understood here as meaning any desired individual part of the refrigerating device that forms part of delimitation of the cooled interior space of the refrigerating device or is fitted in this interior space.

In the “Preferred Embodiment of the Invention” section of the Specification, “[a] refrigerating device” is said to include, but not limited to, a refrigerator. (Spec. 6, l. 10.) Such preferred refrigerating device is said to contain

“various internal fittings, such as for instance refrigerated-item supports for mounting on the housing, refrigerated-item supports for mounting on the door inner wall, pull-out boxes, trays, *etc.*⁶ [(emphasis added)].” (Spec. 8, ll. 11-23.) The Specification does not *clearly define* the term “[a] refrigerating device” as being limited to a refrigerator or freezer as alleged by Appellants. Nor does the Specification indicate that the term “[a] refrigerating device” is limited to the preferred embodiment. Even if the refrigerating device is limited to the preferred embodiment, Appellants have not shown that the term “[a] refrigerating device” excludes ice chest coolers, for Appellants have not shown that ice chest coolers do not have internal fittings, such as a support for objects to be cooled and *etcetera*.

Moreover, the plain meaning of the term “a refrigerating device” does not exclude the ice chest cooler taught by Barry. The term “refrigerating,” as recited in claims 1, 2, 4, and 6 through 10, according to page 989 of WEBSTERS’S II NEW RIVERSIDE UNIVERSITY DICTIONARY (1994), means “[t]o cool or chill.” This known meaning of the term “refrigerating” indicates that the limitation “refrigerating device” recited in claims 1, 2, 4, and 6 through 10 is inclusive of any cooling device, such as the ice chest cooler taught by Barry.

It follows that the Examiner has not reversibly erred in determining the phrase “an inner part of a refrigerating device” recited in claims 1, 2, 4,

⁶ The Specification does not specify what kind of internal fittings are included by the term “etc.”.

and 6 through 10 as including the body parts of the ice chest *cooler* taught by Barry that form a cooled interior surface.

Even assuming the term “refrigerating device” is limited to a refrigerator or a freezer as alleged by Appellants, the fact remains that Barry also teaches, at page 10, using a polymer material containing antibiotic materials to form polymeric articles, including refrigerators. The refrigerators are known to have interior surfaces that are contacted by objects, such as food or the hand of refrigerator users, just like those of the ice chest cooler, thus implying that the inner surfaces of the refrigerators, like those of the ice chest cooler, have antibiotic properties.

Accordingly, we concur with the Examiner that Barry renders the subject matter of claims 1, 2, 4, and 6 through 10 anticipated within the meaning of 35 U.S.C. § 102(b).

With respect to claims 3, 5, 17, 18, and 19, Appellants contend that Barry does not teach the process limitations recited such claims. (App. Br. 6-8.) In support of this contention, Appellants argue that Barry does not disclose an inner part having a body that is “thermoformed or extruded” as required by claim 3, that is “injection molded” as required by claim 5, or that is deformed from an initial solid shape to a final solid shape as required by claims 17 and 18, or that is injection molded with materials comprising granules formed from a plastic material and antimicrobial agent, with or without other materials, as required by claim 19. (*Id.*)

Thus, the dispositive question concerning claims 3, 5, 17, 18, and 19

is: Has the Examiner reversibly erred in determining that the foam body parts of the ice chest cooler taught by Barry are identical or substantially identical to those foam body parts of the same cooler defined by the process limitations broadly recited in claims 3, 5, 17, 18, and 19? On this record, we answer this question in the negative.

It is well settled that the patentability of a claim in product-by-process form is determined based on the product itself, not on the method of making it. *See In re Thorpe*, 777 F.2d 695, 697 (Fed. Cir. 1985) (“If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior [art] product was made by a different process.”). As stated by the predecessor to our reviewing court in *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977):

Where, as here, the claimed and prior art products are identical or substantially identical, or are produce by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. . . . Whether the rejection is based on ‘inherency’ under 35 USC 102, on ‘prima face obviousness’ under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO’s inability to manufacture products or to obtain and compare prior art products. [Footnotes and citations omitted.]

A lesser burden of proof is required of the examiner to establish a prima facie case of anticipation/obviousness for product-by-process claims. *In re Fessmann*, 489 F.2d 742, 744 (CCPA 1974).

Here, as found by the Examiner at pages 4, 5, 11, and 12 of the Answer, Barry teaches that:

When the desired resin for the expanded foam is polyurethane, this resin is usually processed in liquid form and is mixed with a cross-linking agent. To make the liquid equivalent of a master batch of resin pellets that contain the zeolite particles, the zeolite ceramic particles are mixed with the liquid polyurethane. The mixing is thorough to uniformly disperse the zeolite particles. . . .

The liquid concentrate can be mixed with additional untreated liquid polyurethane to form the final resin constituent for the expanded foam with the desired amount of the antimicrobial agent. . . .

If desired, the zeolite particles can be directly blended with the polyurethane liquid to be used as the resin constituent of the foam without first making concentrate to obtain the desired amount of zeolite in the foam resin constituent. . . .

The polyurethane containing the agent is injected into the mold as a constituent of the foam material. Upon expansion, the agent is present throughout the foam, including the inner surface of the chest base.

(Barry, 5-6.) According to the Examiner, Barry teaches injecting a mixture of liquid polyurethane and an antimicrobial agent into a mold and forming a desired shape (e.g., a deformed shape) in a mold similar to the method broadly recited in the claims. (Ans. 4, 5, 11, and 12) Thus, there is a reasonable basis to believe that the inner parts of the ice chest cooler taught by Barry are identical or substantially identical to those recited in the claims. (*Compare* Barry, 4 *with* Appellants' description of the inner part products

recited in claims 1 through 10.) This is especially true in this case since Barry, at page 10, also incorporates by reference the disclosure of Hagiwara, which discloses mixing zeolite (antimicrobial agent) and a mixture of polymers and molding⁷ the resulting mixture to form molded parts having antimicrobial activities.

Further, Appellants' own Specification does not indicate that the inner parts formed by a variety of known molding methods, e.g., thermoforming, extrusion, injection molding, and deforming a preformed resin substrate are patentably different from one another. (Spec. 4, ll. 15-22, 8, ll. 4-5, and 25-26, 9, ll. 1-2 and 22-23.) Indeed, Appellants do not argue that the molded inner part resulting from the broadly claimed process limitations is patentably different from that produced by Barry. (App. Br. 5-8 and Reply Br. 5-6.) Appellants do not argue that the claims on appeal exclude using a foaming agent or exclude forming a deformed inner part made of foam. (App. Br. 5-8 and Reply Br. 5-6.) It follows that Appellants have not identified reversible error in the Examiner's finding that Barry teaches inner body parts of its ice chest cooler, which are identical or substantially identical to those recited in the claims.

⁷ According to page 792 of N. IRVING SAX ET AL., HAWLEY'S CONDENSED CHEMICAL DICTIONARY (11th ed. 1987), molding, by definition, includes injection molding, blow molding, compression molding, and/or extrusion operations.

Accordingly, we concur with the Examiner that Barry also renders the subject matter of claims 3, 5, 17, 18, and 19 anticipated within the meaning of 35 U.S.C. § 102(b).

III. 35 U.S.C. § 103

Appellants contend that Barry and Hagiwara do not teach or suggest the process limitations recited claims 20 through 22. (App. Br. 9-10.) In particular, Appellants argue that Barry and Hagiwara do not disclose or suggest the particular mixing limitations prior to molding as recited in claims 20 through 22. (*Id.*)

Thus, the dispositive question concerning claims 20 through 22 is: Has the Examiner reversibly erred in determining that the body parts of the ice chest cooler suggested by Barry and Hagiwara is identical or substantially identical to those body parts of the same cooler defined by the process limitations broadly recited in claims 20 through 22? On this record, we answer this question in the negative.

The patentability of claims in product-by-process form is determined based on the product itself, not on the method of making it as indicated above. *See Thorpe*, 777 F.2d at 697. As also indicated above, a lesser burden of proof is required of the examiner to establish a prima facie case of anticipation/obviousness for product-by-process claims. *Fessmann*, 489 F.2d at 744.

Here, as indicated *supra*, Barry discloses molding a mixture of liquid polyurethane and antimicrobial agent in a mold similar to the method recited

in claims 20-22. Moreover, Hagiwara, which is incorporated by reference at page 10 of Barry, discloses mixing zeolite (antimicrobial agent) and a mixture of polymers and molding the resulting mixture to form molded articles. Thus, there is a reasonable basis to believe that the inner parts of the ice chest cooler suggested by Barry and Hagiwara are identical or substantially identical to those inner parts recited in claims 20 through 22. Appellants do not argue that the molded inner part resulting from the broadly claimed process limitations is patentably different from that suggested by Barry and Hagiwara. (App. Br. 9-10 and Reply Br. 5-6.) It follows that Appellants have not identified reversible error in the Examiner's finding that Barry and Hagiwara would have suggested inner ice chest cooler body parts, which are identical or substantially identical to those recited in claims 20 through 22.

Accordingly, we concur with the Examiner that the collective teachings of Barry and Hagiwara would have rendered the subject matter of claims 20 through 22 obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a).

With respect to claims 23 through 26, Appellants contend that the collective teachings of the admitted prior art, Barry and Solomon would not have suggested forming an inner body part containing a two-layer inner wall comprising a surface layer having antimicrobial properties, an insulating layer, and an outer wall (App. Br. 11-12.)

Thus, the dispositive question concerning claims 23 through 26 is:

Has the Examiner reversibly erred in determining that the collective teachings of the admitted prior art, Barry and Solomon would have suggested forming an inner body part containing a two-layer inner wall comprising a surface layer having antimicrobial properties, an insulating layer, and an outer wall ? On this record, we answer this question in the negative as well.

As correctly found by the Examiner at page 9 of the Answer, Appellants acknowledge at page 6 of the Specification that:

A refrigerating device, such as for example a refrigerator, contains a heat-insulating housing, which surrounds a cooled interior space and can be closed with a door. The housing and the door are constructed in the same way from an outer wall, for example made of painted sheet metal, *an inner wall, which is generally produced by thermoforming from flat plastics material*, and an insulating foam filling introduced into an intermediate space between the inner wall and the outer wall. *Since this construction is generally known, it need not be explained here on the basis of a figure.* [(Emphasis added.)]

Appellants also acknowledge at pages 8 and 9 of the Specification that:

The flat material sheet is thermoformed in a way known per se and divided up to form housing or door inner walls....

...These frame elements may be injection-molded parts fitted onto the edges of the plate....

These frame elements and other injection-molded parts may be produced from synthetic resin compositions, as described in the exemplary embodiments of European Patent EP 0 228 063 B1....

....

...The mixture is used in a way known per se for

producing the inner parts by injection-molding.

Although Appellants do not acknowledge that the use of the two-layer inner wall comprising a surface layer having antimicrobial properties is conventional in the known refrigerator, Barry, at page 10, teaches that refrigerators can also be provided with antimicrobial properties as indicated *supra*. Barry, by virtue of teaching the importance of providing the inner surfaces of its ice chest cooler with antimicrobial properties to inhibit the growth of microbes and/or fungi due to contact by food or hands of users as indicated *supra*, would have suggested providing such antimicrobial properties on the interior surface of the refrigerator. According to Barry, the inner layer having antimicrobial properties can be provided in the form of one-layer having antimicrobial agent or two-layers with the inner most layer (surface layer) having antimicrobial properties. (Barry, 6 and 8.) It follows that Appellants have not identified reversible error in the Examiner's determination that the collective teachings of the admitted prior art, Barry and Solomon would have suggested forming an inner body part containing a two-layer inner wall comprising a surface layer having antimicrobial properties, an insulating layer, and an outer wall.

Accordingly, we concur with the Examiner that the collective teachings of the admitted prior art, Barry and Solomon would have rendered the subject matter of claims 23 through 26 obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a).

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SUMMARY

In view of the foregoing, the decision of the Examiner rejecting the claims on appeal 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).

AFFIRMED

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