

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WILLIAM N. MAYER

Appeal 2007-4116
Application 10/411,847
Technology Center 3700

Decided: October 30, 2007

Before CHUNG K. PAK, PETER F. KRATZ, and JEFFREY T. SMITH,
Administrative Patent Judges.

PAK, *Administrative Patent Judge.*

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 1 through 7. Claims 8 through 10, the other claims pending in the above-identified application, were objected to as being dependent upon a rejected base claim, but were indicated to be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims (Final Office Action 3). We have jurisdiction pursuant to 35 U.S.C. § 6.

I. STATEMENT OF THE CASE

The subject matter on appeal is directed to a shipping container for temperature-sensitive goods (Specification 4). This appealed subject matter is somewhat similar to those in the Appellant's related Applications 10/278,662 filed October 23, 2002 (Appeal No. 2007-3165) and 10/440,859 filed May 19, 2003 (Appeal No. 2007-0403). Details of the appealed subject matter are recited in representative claim 1 reproduced below:

1. An apparatus for shipping articles under controlled temperature conditions, comprising:
 - a. an enclosure surrounding a volume sized for inside placement of said articles, said enclosure having a walled construction of heat-conductive material, and said enclosure having at least one moveable wall for providing access into the volume for placement of said articles;
 - b. a plurality of insulating walls enclosing said enclosure, including at least one insulating wall which is removable for placement of articles inside said enclosure, said enclosure being sized so as to fit inside said plurality of insulating walls with a predetermined space volume therebetween; and
 - c. a sealable package between said insulating walls and said enclosure, said package containing phase change material.

As evidence of unpatentability of the claimed subject matter, the Examiner has relied upon the following references (Answer 3):

Hjertstrand	4,145,895	Mar. 27, 1979
Derifield	5,924,302	Jul. 20, 1999
Gano	6,502,417 B2	Jan. 7, 2003

The Examiner has rejected the claims on appeal as follows:

- 1) Claims 1, 2, 6, and 7 under 35 U.S.C. § 102(a) as anticipated by the disclosure of Gano (Answer 3);
- 2) Claim 3 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Gano and Derifield (Answer 3-4); and
- 3) Claims 4 and 5 under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Gano and Hjerstrand (Answer 4).

The Appellant appeals from the Examiner's decision rejecting claims 1 through 7 under 35 U.S.C. §§ 102(a) and 103(a).

II. PRINCIPLES OF LAW, FACTUAL FINDINGS, ISSUES AND ANALYSES

A. ANTICIPATION

Under 35 U.S.C. § 102, anticipation is established only when a single prior art reference describes, either expressly or under the principle of inherency, each and every element of a claimed invention. *In re Spada*, 911 F.2d 705, 708, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990). The law of anticipation, however, does not require that the prior art reference teach Appellant's purpose or utility described in the Specification, but only that the claims on appeal "read on" something disclosed in the reference. *See Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983).

Applying the above principles of law to the present circumstance, the Examiner has determined that Gano renders the subject matter recited in claims 1, 2, 6, and 7 anticipated within the meaning of 35 U.S.C. § 102(a). The Examiner has found that Gano, in reference to its Figure 7, teaches

an enclosure 170 [sic. 160] formed from a heat conductive material [to define a volume 170 for inside placement of articles], a movable wall 200 providing access into the volume of the container, a plurality of insulating walls 220 [and] 150 with wall 150 [sic. 220] being removable and allowing placement of [the] articles within the container, the enclosure is sized to fit inside the insulating walls with a space volume therebetween and a sealable package 180 between the insulating walls and the enclosure with the sealable package containing [a] phase change material [identified by Gano as a refreezable material] (see col.6, lines 1-13 of the specification). With respect to claim 2, the "refreezable material" in Gano, III has a melting point within a specified range. With respect to claim 6, claim 6 includes like elements to claim 1 above and claim 6 reads upon Gano, III in the same manner as set forth above. Claim 7 is considered met by the shape of the insulating walls as shown in the drawings.

(Answer 3).

The Appellant only contends that the enclosure (insert 160) taught by Gano is not formed of a heat-conductive material (Br. 4-6 and Reply Br. 1-2).

The dispositive question is, therefore, whether Gano expressly or inherently teaches an enclosure (an insert 160) made of a heat conductive material within the meaning of 35 U.S.C. § 102(a). On this record, we answer this question in the affirmative.

As correctly stated by the Examiner, the claims do not “specify any particular range of heat conductivity” (Answer 5). Given the fact that any material has some heat conductivity, we determine that the term “heat-conductive material” recited in the claims does not exclude the insert 160 (enclosure) taught by Gano.

In reaching this determination, we note the Appellant's assertion that the term "heat-conductive" is a term commonly employed by those skilled in the art to define a relative conductivity more narrow than the literal meaning of the term (Br. 6). However, the Appellant has not proffered any objective evidence to support this assertion. Indeed, the Evidence Appendix section of the Brief indicates that no evidence is relied upon by the Appellant.

Even were we to determine that the art-recognized meaning of "heat-conductive material" does not include any and all materials, our conclusion would not be altered. As indicated by Gano at col. 1, ll. 19-22, its container is used to store "items so that *the temperature of the items* may be maintained, raised and/or cooled as desired [emphasis added]." The purpose of Gano's container to cool, heat or maintain items in the storage chamber indicates that the insert 160 (an inner enclosure) is constructed of either a heat conductive material or an insulation material. Moreover, Gano teaches that a storage chamber 70 surrounded by a re-freezable material (corresponding to a storage chamber 170 formed by an insert 160 surrounded by a re-freezable material) is adapted to receive beverage containers and is used to chill the beverages containers therein (col. 5, ll. 2-40). When a re-freezable material is used to surround the storage chamber to chill an item, the insert 160 is necessarily or inherently made of a heat conductive material if it is to allow the re-freezable material to perform its cooling or chilling function as indicated *supra*. In either case, we determine that one of ordinary skill in the art would have readily envisaged employing a heat conductive material as the insert 160 taught by Gano within the meaning of 35 U.S.C. § 102(a). *In re Schaumann*, 572 F.2d 312, 315-16,

197 USPQ 5, 8-9 (CCPA 1978)(holding that “the disclosure of a chemical genus....constitute[s] a description of a specific compound” within the meaning of § 102 where the specific compound falls within a genus of a “very limited number of compounds.”); *see also In re Petering*, 301 F.2d 676, 681, 133 USPQ 275, 280 (CCPA 1962).

Accordingly, we affirm the Examiner’s decision rejecting claims 1, 2, 6, and 7 under 35 U.S.C. § 102(a) as anticipated by Gano.

B. OBVIOUSNESS

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) secondary considerations (e.g., the problem solved). *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18 (1966). “[A]nalysis [of whether the subject matter of a claim is obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41, 82 USPQ2d 1385, 1396 (2007), quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336-37 (Fed. Cir. 2006); *see also DyStar Textilfarben GmbH & Co. Deutschland KG v. C.H. Patrick Co.*, 464 F.3d 1356, 1361, 80 USPQ2d 1641, 1645 (Fed. Cir. 2006)(“The motivation need not be found in the references sought to be combined, but may be found in any number of sources, including common knowledge, the prior art as a whole, or the

nature of the problem itself.”); *In re Bozek*, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969) (“Having established that this knowledge was in the art, the examiner could then properly rely, as put forth by the solicitor, on a conclusion of obviousness ‘from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference.’”); *In re Hoeschele*, 406 F.2d 1403, 1406-07, 160 USPQ 809, 811-812 (CCPA 1969) (“[I]t is proper to take into account not only specific teachings of the references but also the inferences which one skilled in the art would reasonably be expected to draw therefrom...”).

Applying the above principles of law to the present facts, we determine that Gano would have rendered the subject matter defined by claim 3 obvious to one of ordinary skill in the art within the meaning of 35 U.S.C. § 103(a). As is apparent from pages 6 through 8 of the Brief and pages 1 and 2 of the Reply Brief, the Appellant has not disputed the Examiner’s determination at page 4 of the Answer that:

It would have been obvious to make the phase change material, i.e., the “refreezable material” in Gano,...using water/ice as taught by Derifield since water/ice packs are cheap substitute for other known heat sink packages such as gel packs.

The Appellant only contends that Gano and Derifield would not have suggested employing a heat conductive material as Gano’s insert 160 (Br. 6-8).

The dispositive question is, therefore, whether Gano and Derifield would have suggested an enclosure (an insert 160) made of a heat conductive material within the meaning of 35 U.S.C. § 103(a). On this

record, we answer this question in the affirmative for the factual findings set forth above.

Accordingly, we affirm the Examiner's decision rejecting claim 3 under 35 U.S.C. § 103(a).

As to the Examiner's rejection of claims 4 and 5, the Appellant has not disputed the Examiner's finding at page 4 of the Answer that:

Hjerstrand et al teaches that it is known to make a heat insulating container with an internal enclosure formed from metal.

In fact, the Appellant has acknowledged at page 8 of the Brief that "Hjerstrand et al. discloses an insulated storage container comprising (i) an outer box of an insulating material (10 and 11), (ii) an insert box (20) of a thermally-conductive material defining a storage chamber...." The Appellant only contends that one of ordinary skill in the art would not have been led to employ a thermally-conductive material (metal) to form the internal enclosure (the insert 160) taught by Gano (Br. 8-10).

The dispositive question is, therefore, whether a person having ordinary skill in the art have been led to make Gano's inner enclosure (insert 160) with thermally-conductive materials, such as the metal materials taught by Hjerstrand, within the meaning of 35 U.S.C. § 103? On this record, we answer this question in the affirmative.

As indicated *supra*, Gano teaches that its container is used to store "items so that *the temperature of the items* may be maintained, raised and/or cooled as desired [emphasis added]." The purpose of Gano's container to cool, heat or maintain items in the storage chamber indicates that the inner enclosure (the insert 160) must be selected from either a heat conductive

material or an insulation material. Moreover, as indicated *supra*, Gano teaches a storage chamber formed by an insert 160 surrounded by a re-freezable material which is useful for cooling items therein.

Thus, given the need to cool or raise the temperature of items in the storage chamber defined by the inner enclosure (insert 160) taught by Gano, we determine that one of ordinary skill in the art would have been led to employ conventional thermally-conductive materials, such as the metal materials taught by Hjerstrand, to construct the inner enclosure (insert 160) taught by Gano, with a reasonable expectation of successfully cooling or heating the items. “The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR*, 127 S. Ct. at 1739.

Accordingly, for the reasons set forth in the Answer and above, we also affirm the Examiner’s decision rejecting claims 4 and 5 under 35 U.S.C. § 103(a) as unpatentable over Gano and Hjerstrand.

VII. ORDER

The decision of the Examiner is affirmed.

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VIII. TIME PERIOD

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

PL/LP

sld/ls

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