

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT E. WARD

Appeal 2006-2165
Application 10/652,958
Technology Center 3600

Decided: May 30, 2007

Before BRADLEY R. GARRIS, CHUNG K. PAK and
THOMAS A. WALTZ, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant appeals the final rejection of claims 1-21 under 35 U.S.C. § 134. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

INTRODUCTION

Appellant claims a bearing component made of polymeric material including an antimicrobial agent for inhibiting growth of microorganisms (claim 20). The bearing component may be a bearing housing for use in food, beverage and pharmaceutical manufacturing equipment and processes (Specification 5-6). Appellant indicates that the antimicrobial agent in the bearing component prevents growth and proliferation of bacteria, fungi and microorganisms on the bearing housing, which is advantageous for bearing housings used in the food and beverage industries (Specification 1, 13).

Claim 20 is illustrative:

20. A bearing component comprising:

a body made of a moldable polymeric material including an antimicrobial agent for inhibiting growth of microorganisms.

The Examiner relies on the following prior art references as evidence of unpatentability:

Richardson	US 4,005,917	Feb. 1, 1977
Kernes	US 4,932,948	Jun. 12, 1990
Blackburn	US 4,968,323	Nov. 6, 1990
Seabrook	US 5,554,373	Sep. 10, 1996
Ward I ¹	US 6,089,758	Jul. 18, 2000
Ward II	US 6,623,169 B2	Sep. 23, 2003

¹ Roman numerals have been added to the inventors name to differentiate between the Ward patents US 6,089,758 and US 6,623,169 B2.

The rejections as presented by the Examiner are as follows:

1. Claims 1-21 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-19 of Ward I or claims 1-19 of Ward II.

2. Claims 1, 6, 7, 9, 11-13, 15-17, 20, and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Richardson in view of Kernes, Blackburn, or Seabrook or alternatively in view of Appellant's admissions at page 13 of the Specification.

Appellant argues the prior art does not disclose or suggest a claim feature common to independent claims 1, 6, 11, 15, and 20. We choose claim 20, the broadest claim on appeal, as the representative claim on which to render our decision. Accordingly, we discuss Appellant's arguments with regard to only claim 20 in our opinion below.

OPINION

35 U.S.C. § 103(a) REJECTION

Appellant argues that none of the applied patents (i.e., Richardson, Kernes, Blackburn, or Seabrook) provide motivation for the Examiner's proposed combination of the prior art under § 103 (Br. 9-11). Specifically, Appellant argues that Richardson does not disclose or even suggest using an antimicrobial agent in the pillow block for mounting a bearing (Br. 10). Regarding Kernes, Blackburn or Seabrook, Appellant argues that none of the patents disclose incorporating an antimicrobial agent in a bearing housing (Br. 10). Appellant contends that "even if the use of microbial [*sic* antimicrobial] agents in certain plastic environments was known, the

Examiner has provided no suggestion or teaching whatsoever in the references which would lead one of ordinary skill in the art to place an antimicrobial agent in the pillow block [bearing housing] of . . . Richardson . . .” (Br. 10).

Appellant further contends that his statement on page 13 of the Specification, “[a]s will be appreciated by those skilled in the art, such antimicrobial agents may be added to the polymeric material prior to injection molding and remain effective following the molding process,” does not state that the process of adding antimicrobial agents to polymeric material to form a bearing housing was known by one skilled in the art at the time the invention was made (Br. 12). Rather, Appellant contends that his statement is only evidence of the capabilities of one of ordinary skill in the art (Br. 12).

Appellant additionally argues the Examiner has applied impermissible hindsight to pick and choose among the disclosures of the prior art references to support the § 103 rejection (Br. 12).

For the reasons below, we are unpersuaded by Appellant’s arguments.

Richardson discloses a plastic pillow block made of thermoplastic structural foam (Richardson, col. 1, ll. 36-43). The pillow block possesses the same claimed features as Appellant’s bearing housing, except for the antimicrobial agent.

Kernes discloses incorporating an antimicrobial agent into a plastic catheter for controlling bacterial growth in the end portion of the catheter (Kernes, col. 1, l. 55 to col. 2, l. 4). Blackburn discloses using antimicrobial agents in the manufacture of plastics and resins (Blackburn, col. 1, ll. 41-42, 45). Seabrook discloses using antimicrobial agents in plastic applications

where it is “desirous to prevent the growth of microorganisms upon the polymeric material itself or on and in products in close proximity to the material” (Seabrook, col. 6, l. 41 to col. 7, l. 50).

Appellant discloses in his Specification that in the “food and beverage industries” frequent washing of the process equipment, including bearings and their housings, promotes undesirable corrosion of conventional metal bearing housings (Specification 3). Because of the undesirable corrosion with metal bearing housings, Appellant states that “the industry [i.e., the “food and beverage industry”] has began [*sic* begun] to employ alternative materials for bearing housings, including certain plastics” (Specification 3). From these disclosures, Appellant indicates that the “food and beverage industries” employ plastic bearing housings to prevent undesirable corrosion common with metal bearing housings.

Moreover, the Examiner’s finding on page 4 of the Answer states that “[a] plastic bearing assembly used in the food and beverage industries is a venue where antimicrobial [*sic* microbial] growth is undesirable” (Answer 4). This finding has not been challenged by Appellant.

From the foregoing disclosures and the Examiner’s factual finding, we make the following findings of fact: (1) Richardson discloses a plastic pillow block bearing housing; (2) Plastic bearings are used in the food and beverage industries where microbial growth is undesirable; and (3) Kernes, Blackburn or Seabrook disclose using antimicrobial agents in plastics to prevent microbial growth on plastics. Flowing logically from the above factual findings, one of ordinary skill in the art would have been motivated to combine Kernes’, Blackburn’s or Seabrook’s antimicrobial agent with Richardson’s plastic pillow block bearing housing to prevent microbial

growth on the plastic bearing housing where such microbial growth is undesirable, such as the food and beverage industries. Thus, contrary to Appellant's argument, the Examiner relies not on impermissible hindsight, rather, he provides motivation for the combination of Kernes', Blackburn's or Seabrook's antimicrobial agent with Richardson's plastic pillow block bearing housing from the references and knowledge of one of ordinary skill in the art. *In re Rouffet*, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1457-58 (Fed. Cir. 1998). Furthermore, a teaching, suggestion, or motivation to combine the relevant prior art teachings does not have to be found explicitly in the prior art, as the teaching, suggestion, or motivation may be implicit from the prior art as a whole. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336; cited with approval in *KSR Int'l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007).

Regarding Appellant's argument that his statement on page 13 of the Specification is not an admission, we interpret Appellant's page 13 disclosure, like Appellant, as stating that it is known to one of ordinary skill in the art that an antimicrobial agent added to a polymeric material prior to injection molding retains its antimicrobial nature after the injection molding process (Br. 12). However, as discussed below, such an interpretation reinforces the Examiner's position that the claimed invention would have been obvious to one of ordinary skill in the art.

The Examiner's position is that it would have been obvious in view of Kernes', Blackburn's or Seabrook's use of antimicrobial agents in plastics to incorporate an antimicrobial agent in Richardson's plastic bearing housing to inhibit microbial growth (Answer 4). Appellant's disclosure that it is known to one of ordinary skill in the art to add antimicrobial agent prior to injection

molding plastic and have the antimicrobial agent retain its properties after injection molding, further supports a reasonable expectation of success in the combination of Kernes', Blackburn's or Seabrook's antimicrobial agent with Richardson's injection molded plastic bearing housing. A reasonable expectation that the combination of prior art references would be successful further supports a prima facie case of obviousness. *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097, 231 USPQ 375, 379 (Fed. Cir. 1986).

EVIDENCE OF NON-OBVIOUSNESS: SECONDARY CONSIDERATIONS

Appellant provides two 37 C.F.R. § 132 declarations, the Shea and Nisley Declarations, to show evidence of non-obviousness (i.e., secondary considerations). Specifically, Appellant contends that the declarations demonstrate the commercial success and copying by others of the claimed invention so as to overcome the § 103 rejection over Richardson in view of Kernes, Blackburn or Seabrook, or alternatively over Appellant's admission on page 13 of the Specification (Br. 12).

Generally, for evidence of commercial success to be accorded substantial weight, the evidence must show that the commercial success is due to the merits of the claimed invention (i.e., the claimed features were responsible for the success) rather than other economic and commercial factors unrelated to the technical quality of the patented subject matter. *Ex parte Remark*, 15 USPQ2d 1498, 1502-03 (BPAI). To establish a nexus between the claimed subject matter and commercial success requires more than a mere showing that there was a commercial success and that the commercially successful article is embodied in the claimed invention. *Id.*

citing, *In re Thompson*, 545 F.2d 1290, 1295, 192 USPQ 275, 277 (CCPA 1976), *In re Heldt*, 433 F.2d 808, 812, 167 USPQ 676, 679 (CCPA 1970), *In re Noznick*, 478 F.2d 1260, 1264, 178 USPQ 43, 46 (CCPA 1973).

Evidence of commercial success based solely on the number of units sold is insufficient to establish commercial success of the claimed invention. *In re Baxter Travenol Labs, Inc.*, 952 F.2d 388, 392, 21 USPQ2d 1281, 1285 (Fed. Cir. 1991). Rather, other evidence, such as market share, growth in market share, replacement of earlier products sold by others, need be present. *Ex parte Anderson*, 21 USPQ2d 1241, 1258 (BPAI 1991) citing, *Kansas Jack, Inc. v. Kuhn*, 719 F.2d 1144, 1151, 219 USPQ 857, 861 (Fed. Cir. 1983). *See also, In re Huang*, 100 F.3d 135, 140, 40 USPQ2d 1685, 1689 (Fed. Cir. 1996).

Appellant's evidence is insufficient to overcome the § 103 rejection because Appellant failed to show a sufficient nexus between the proffered evidence and the claimed invention. Regarding Appellant's showing of commercial success of the plastic bearing housing, from the evidence provided, we cannot determine whether the sales increase discussed in paragraph 7 of the Shea and Nisley Declarations is due, for example, to advertising, the lower cost of the plastic bearing housing compared to the metal bearing housing, or the antimicrobial agent claim feature. *Remark*, 15 USPQ2d at 1502-03. The extent of Appellant's demonstration of a nexus between the alleged commercial success and the claimed invention consists of Shea's conclusory statement that the increase in sales of the plastic bearing housings is "attributable, in large part, to the claimed inclusion of the antimicrobial agent in the polymeric component" (Shea Declaration ¶ [0008]). Such conclusory statements are insufficient to establish a nexus

between the commercial success and the claimed invention. *Huang*, 100 F.3d at 140, 40 USPQ2d at 1690. Therefore, Appellant has failed to establish the requisite nexus between the claimed invention (i.e., the plastic bearing housing containing the antimicrobial agent) and the alleged commercial success of the claimed invention.

Furthermore, from the evidence provided by Appellant, we cannot determine how the sales increase compares to the industry as a whole (i.e., market share) or from what baseline the sales increase is being measured against (i.e., growth in market share). *Anderson*, 21 USPQ2d at 1258. Appellant has not provided actual sales figures to compare to the plastic bearing housing industry as a whole. Accordingly, Appellant's evidence is insufficient to establish commercial success of the claimed invention.

Regarding Appellant's evidence of copying of the invention by others (i.e., Nisley Declaration ¶ 9), we are unable to determine from the evidence if Appellant's competitor (Rexnord®) is copying from Appellant or following the teachings of the prior art indicated above in our discussion of the Examiner's § 103(a) rejection. Additionally, Appellant's evidence fails to establish that the competitor's (Rexnord®) plastic bearing housing is identical to Appellant's plastic bearing housing. Accordingly, we are unpersuaded by Appellant's evidence of copying by others.

Furthermore, the evidence provided by Appellant is simply insufficient to overcome the strong prima facie case of obviousness established by the Examiner. Objective evidence of nonobviousness, such as commercial success and copying by others, will not necessarily overcome a prima facie case of obviousness based on the teachings of the prior art and admissions. *Leapfrog Enters., Inc. v. Fisher-Price, Inc.*, No. 06-1402, slip

op. 10-11 (Fed. Cir. May 9, 2007). *See also Newell Cos., Inc. v. Kenney Mfg. Co.*, 864 F.2d 757, 769, 9 USPQ2d 1417, 1427 (Fed. Cir. 1988).

For the foregoing reasons, we affirm the Examiner's rejection of argued claims 1, 6, 11, 15, and 20 and non-argued claims 7, 9, 12, 13, 16, 17, and 21.

OBVIOUSNESS DOUBLE PATENTING REJECTION

We have considered all of Appellant's arguments regarding the Examiner's obviousness double patenting rejection and find them unpersuasive for reasons below.

Appellant's claim 20 recites a bearing component comprising a body made of moldable polymeric material including an antimicrobial agent for inhibiting growth of microorganisms (claim 20).

Ward I, for example, recites in claim 1 "[a] housing for a bearing insert" comprising "moldable polymeric foam" and "an antimicrobial agent" (Ward I, claim 1). Similarly, in Ward II, for example, claim 1 recites "[a] support housing for a bearing insert" comprising "an admixture of a moldable polymeric material and an antimicrobial agent" (Ward II, claim 1).

Therefore, the scope of Appellant's claim 20 is the same as or broader than the scope of Ward I's and Ward II's claims. Accordingly, we affirm the Examiner's obviousness-type double patenting rejection of claims 1-21 over Ward I and Ward II.

ADDITIONAL ISSUES

Dependent claims 2 and 10 have been objected to by the Examiner (Final Office Action, 4). Dependent claim 19 was originally rejected under

§ 103(a) over Richardson in view of Kernes, Blackburn, or Seabrook, or alternatively in view of Appellant's admission on page 13 of the Specification, in further view of "official notice of common knowledge in the art, or, in the alternative, engineering design choice" (Non-Final Office Action mailed September 29, 2004, 4-5). The § 103 rejection applied to claim 19 was withdrawn in the Final Office Action, however, the disposition of claim 19 with regard to the prior art rejections was never resolved (i.e., it was neither objected to nor included in a §§ 102 or 103 rejection).² Claims 2, 10, and 19 appear to be disclosed or suggested by Richardson such that a rejection under § 103(a) of these claims over Richardson in view of Kernes, Blackburn, or Seabrook, or alternatively in view of Appellant's admission on page 13 of the Specification appears appropriate.

Regarding claim 2, Richardson discloses forming the pillow block out of "conventional thermoplastic structural foam materials" (Richardson, col. 1, ll. 41-43, 59-61) and therefore would have suggested using the "moldable structural foam material" of claim 2.

Regarding claim 10, Richardson discloses "the attachment portion [Figure 1, ref. no. 36, 34] forms a base on which the support housing [Figure 1, ref. no. 12] is mounted when placed in service, and wherein the base includes a base mounting surface extending substantially in a plane and coextensive with the base [Figure 1, ref. no. 34, the "substantially" flat

² The Examiner rejected claims 1-21 under obvious-type double patenting over Ward I and Ward II in the Final Office Action. However, the Examiner additionally rejected claims 1, 6-7, 9, 11-13, 15-17, and 20-21 under § 103. Moreover, claims 2, 3-5, 8, 10, and 14 were objected to by the Examiner. However, claim 19 was not rejected under § 103(a) or objected to by the Examiner. Hence, the disposition of claim 19 is unclear.

underside of the projecting mounting portions 34 forms “a base mounting surface”]” as recited in claim 10.

Regarding claim 19, because Richardson uses a “foam plastic,” Richardson necessarily suggests using a “foaming agent” as recited in Appellant’s claim 19 to produce the foam.

Accordingly, the primary reference of the § 103(a) rejection, Richardson, appears to disclose or suggest the features of claims 2, 10 and 19.

Furthermore, the Examiner needs to resolve a lack of clarity in the record. Claim 18 was originally rejected under § 103(a) over Richardson in view of Kernes, Blackburn, or Seabrook, or alternatively in view of Appellant’s admission on page 13 of the Specification, in further view of “official notice of common knowledge in the art, or, in the alternative engineering design choice” (Non-Final Office Action mailed September 29, 2004, 4-5). However, the § 103 rejection applied to claim 18 in the Non-Final Office Action was withdrawn in the Final Office Action but the disposition of claim 18 with regard to the prior art rejections was never resolved (i.e., claim 18 was neither objected to nor included in a §§ 102 or 103 rejection).³ Rather, the Examiner only rejected claim 18 under obvious-type double patenting over Ward I and Ward II.

³ The Examiner rejected claims 1-21 under obvious-type double patenting over Ward I and Ward II in the Final Office Action. However, the Examiner additionally rejected claims 1, 6-7, 9, 11-13, 15-17, and 20-21 under § 103 over Richardson in view of Kernes, Blackburn, Seabrook or alternatively in view of Appellant’s admission at page 13 of his Specification. Moreover, claims 2, 3-5, 8, 10, and 14 were objected to by the Examiner. However, claim 18 was not rejected under § 103(a) over Richardson in view of Kernes,

Therefore, the Examiner should determine, and make of record the results of this determination, as follows: the propriety of rejecting at least claims 2, 10, and 19 under 35 U.S.C. § 103(a) as being unpatentable over Richardson in view of Kearnes, Blackburn, or Seabrook, and (2) whether claim 18 would be allowable if a terminal disclaimer is filed to obviate the obviousness-type double patenting rejection over Ward I and Ward II.

DECISION

The Examiner's rejections of claims 1, 6, 7, 9, 11-13, 15-17, 20, and 21 under § 103(a) over Richardson in view of Kearnes, Blackburn, or Seabrook, or alternatively over Appellant's admission on page 13 of the Specification is AFFIRMED.

The Examiner's rejection of claims 1-21 under the judicially created doctrine of obviousness-type double patenting rejection over Ward I and Ward II 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)(2006).

AFFIRMED

Blackburn, Seabrook or alternatively in view of Appellant's admission at page 13 of his Specification or objected to by the Examiner. Hence the disposition of claim 18 is unclear.

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