

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 B. BRUCE and DAVID M. HARRISS

Appeal No. 2005-0146
Application No. 10/274,635

ON BRIEF

Before PAK, WALTZ, and DELMENDO, Administrative Patent Judges.
WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the primary examiner's final rejection of claims 21 through 26 and 28 through 31, which are the only claims pending in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellants, the invention is directed to a process for reducing fungal growth in a building comprising finishing portions of the building which are prone to water accumulation with gypsum-core construction material, as well as the gypsum-core construction material itself (Brief, page 2). In this

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gypsum-core construction material, the gypsum core is covered on both sides with synthetic polymeric fibrous sheets comprising at least 50 wt.% of fibers selected from the group consisting of polyester, nylon, polyurethane, and co-polyether-ester (*id.*).

Appellants state that claims 21, 25, 26 and 28 stand or fall together while all other claims may be considered separately (Brief, page 2). To the extent appellants present arguments to individual claims, these claims are considered separately. See 37 CFR § 1.192(c)(7)(2003); *In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002). Representative independent claim 28 is reproduced below:

28. A gypsum-core construction material resistant to fungal growth, wherein the gypsum core is covered on both sides with synthetic polymeric fibrous sheets comprising at least 50 wt.% of fibers selected from the group consisting of polyester, nylon, polyurethane and co-polyether-ester.

The examiner relies upon the following references as evidence of unpatentability:

Long	4,094,694	June 13, 1978
Miller	5,350,554	Sep. 27, 1994
Englert	5,817,262	Oct. 06, 1998

Claims 21, 25 and 28 stand rejected under 35 U.S.C. § 102(b) as anticipated by Miller (Answer, page 3). Claims 22-24 and 29-31 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Miller

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in view of Long (*id.*). Claim 26 stands rejected under 35 U.S.C. § 103(a) as unpatentable over Miller in view of Englert (*id.*).

Based on the totality of the record, we *affirm* all of the rejections on appeal essentially for the reasons stated in the Answer and those reasons set forth below.

OPINION

A. *The Rejection under § 102(b)*

As discussed above, appellants state that claims 21, 25 and 28 stand or fall together (Brief, page 2). Since these claims are the subject of the rejection based on section 102(b), we select claim 28 from this grouping and decide this ground of rejection on the basis of this claim alone. See 37 CFR § 1.192(c)(7)(2003).

The examiner finds that Miller discloses a construction panel for a wall comprising a gypsum core covered on both sides with fibrous sheets of synthetic resin, such as nylon or polyester fibers (Answer, page 3, citing col. 1, ll. 12-21, col. 1, l. 63- col. 2, l. 3, and Fig. 2D). Accordingly, the examiner finds that all claim limitations are described by Miller within the meaning of section 102(b).

Appellants argue that Miller does not include a gypsum core that is "covered on both sides" by fibrous sheets since Miller teaches that it is essential that the openings in the pervious

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fabric be filled with the slurry in order to secure adequate bonding of the web to the core layer (Brief, pages 2-3; Reply Brief, page 1). Appellants further argue that, in contrast, the present invention has polymeric fibrous liner sheets with pore sizes small enough to prevent the gypsum slurry from penetrating completely through the liner material (Brief, page 3). Finally, appellants argue that the "plain meaning" of "cover" as used in the claimed invention does not encompass a situation where the alleged covering is subsumed by the thing being covered as in Miller (Brief, page 3, citing Figures 2A, 4, 5, 7 and 8 of Miller).

Implicit in our review of the examiner's anticipation analysis is that the claim must first have been correctly construed to define the scope and meaning of any contested limitation. See *Gechter v. Davidson*, 116 F.3d 1454, 1457, 43 USPQ2d 1030, 1032 (Fed. Cir. 1997). Accordingly, we must properly construe the meaning and scope of "covered on both sides" as recited in claim 28 on appeal. We recognize that, in *ex parte* prosecution, claim terms must be given their broadest reasonable meaning in their ordinary usage as understood by one of ordinary skill in the art, as enlightened by any guidelines or definitions found in the specification. See *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d

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1023, 1027 (Fed. Cir. 1997); see also *In re Graves*, 69 F.3d 1147, 1152, 36 USPQ2d 1697, 1701 (Fed. Cir. 1995).

The term "covered on both sides" is not specifically defined in the specification. Appellants do disclose that the gypsum core is "sandwiched" between the first and second nonwoven sheets (page 4, ll. 14-15). The specification does not exclude pore sizes of the pervious fabric which are large enough that the gypsum slurry fills the pores or even goes through the pores to contact the fabric liner. To the contrary, appellants' specification teaches that the first surface of the first and second nonwoven sheets may be coated with a primer layer of gypsum slurry (page 4, ll. 35-37). The specification also teaches that the nonwoven sheets have open pores between fibers of sufficient size for the gypsum slurry to enter the pores (page 5, ll. 32-36). The specification teaches an embodiment where the range of pore sizes of the nonwoven sheets allows the wet, set gypsum layer to intertwine with the fibers of the synthetic fibrous liner without the gypsum slurry penetrating completely through the nonwoven liner (page 12, ll. 10-12). However, we find no evidence from the specification that this limitation should be imported into the claims. See *In re Prater*, 415 F.2d 1393, 1405, 162 USPQ 541, 551 (CCPA 1969); and *In re Zletz*, 893 F.2d 319, 322, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

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The ordinary or plain meaning of "cover" is "to put, lay, or spread something over, on or before (as for protecting, enclosing, or masking)."¹ Accordingly, we construe the broadest reasonable scope and meaning of "covered on both sides" to include a gypsum core with synthetic polymeric fibrous sheets laying over or enclosing both sides of the gypsum core, with no limitations that the fibrous sheets touch the gypsum core or whether there is any slurry on the sheet face.

In view of our claim construction as discussed above, we agree with the examiner that Miller describes every limitation of the claims on appeal within the meaning of section 102(b). We agree with appellants that Miller teaches that the surfaces of the web should be coated with gypsum slurry, as well as filling all of the openings in the mesh web with slurry (col. 2, ll. 48-52; col. 6, ll. 30-31; and col. 7, ll. 41-45). However, the claims as construed above do not exclude the gypsum slurry coating the web faces (see the Answer, page 5). Appellants argue that the pore sizes of the present invention are small enough to prevent the gypsum slurry from penetrating completely through the liner material (Brief, page 3). This argument is not well taken since

¹See *Webster's Third New International Dictionary*, Gove, ed., p. 524, G.& C. Merriam Co., 1971.

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this limitation is not recited in the claims (see the Answer, page 5).

Appellants argue that Miller uses the term "coat" differently than in the present invention and that Figures 2A, 4, 5, 7 and 8 show the slurry covering and penetrating the fabric (Brief, page 3). This argument is not well taken since appellants admit that the slurry "covers" the fabric (or vice versa). Furthermore, as discussed above, slurry "penetrating" the fabric is not precluded from the claimed subject matter. Additionally, we note that the embodiment of Miller shown in Figure 2D discloses the core layer of gypsum slurry 12 encapsulated (i.e., covered) on both sides by the first and second mesh fabrics with no slurry "penetrating" through the fabric.

For the foregoing reasons and those stated in the Answer, we determine that the examiner has established that every limitation of claim 28 on appeal is described by Miller within the meaning of section 102(b). Accordingly, we *affirm* the examiner's rejection of claim 28, and claims 21 and 25 which stand or fall with claim 28, under section 102(b) over Miller.

B. The Rejections under § 103(a)

The findings from Miller are adopted as discussed above. As recognized by the examiner, Miller does not teach constructing the gypsum core with reduced amounts of materials that may serve as fungal nutrients, such as starch (Answer, page 3). The examiner applies Long for the teaching that the use of starch in gypsum boards may be eliminated by the alternate use of polyvinyl alcohol (PVA) as a binder in the gypsum core for improved water resistance (*id.*). From these findings, the examiner concludes that it would have been obvious to one of ordinary skill in the art at the time of appellants' invention to use PVA in the gypsum core of Miller as a substitute for starch, with the expectation of improved water resistance of the resulting gypsum board as taught by Long (*id.*). We agree.

Appellants argue that Long does not provide any motivation to combine with Miller, does not provide any suggestion of deleting starch for avoiding fungal growth, and has no teaching that PVA alone can be used as a substitute for starch (Brief, page 4; Reply Brief, page 2).

Appellants' arguments are not persuasive. As correctly noted by the examiner (Answer, pages 3 and 6), Long expressly teaches the use of PVA, along with a borate compound, "to eliminate some or all

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of the starch normally utilized for bonding the paper cover sheets to the gypsum core" (col. 4, ll. 16-20). As also correctly noted by the examiner (Answer, pages 3 and 6), Long provides the motivation of improved water resistance to support the combination of Miller with Long (see Long, abstract; col. 3, ll. 6-13; and col. 13, ll. 13-22). Although appellants are correct that Long does not teach deleting starch from the gypsum core for the reason of avoiding fungal growth, a conclusion of obviousness does not have to be predicated on the identical reason as appellants' reason. See *In re Kemps*, 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996). As also correctly noted by the examiner (Answer, paragraph bridging pages 6-7), the claims do not exclude the additional ingredients of a borate compound and asphalt/wax as disclosed by Long.

Appellants argue that Long discloses sugar, which is a fungal ingredient, as a typical element in Table II in column 4 (Reply Brief, page 2). This argument is not well taken since Long teaches that standard gypsum slurries may contain sugar (Table II, col. 4, ll. 60-67) or may omit sugar (Table IV, col. 6, ll. 40-55).

The examiner applies Englert in combination with Miller in the rejection of claim 26, using Englert as evidence that gypsum boards were known to be used in both wall and ceiling applications

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(Answer, page 4). Appellants merely argue that Englert fails to cure the deficiencies of Miller (Brief, page 5). Accordingly, we adopt our remarks from above, as well as the findings from the Answer.

For the foregoing reasons, we determine that the examiner has established a *prima facie* case of obviousness in view of the reference evidence. Based on the totality of the record, including due consideration of appellants' arguments, we determine that the preponderance of evidence weighs in favor of obviousness within the meaning of section 103(a). Therefore we affirm both rejections on appeal based on section 103(a).

C. Summary

We affirm the rejection of claims 21, 25 and 28 under 35 U.S.C. § 102(b) over Miller.

We affirm the rejection of claims 22-24 and 29-31 under 35 U.S.C. § 103(a) over Miller in view of Long. We affirm the rejection of claim 26 under 35 U.S.C. § 103(a) over Miller in view of Englert.

The decision of the examiner is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv)(effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED

CHUNG K. PAK)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
THOMAS A. WALTZ)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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ROMULO H. DELMENDO)	
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