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NEWAY, BLAINE GIRMA

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GERARDO FRIEDLMEIER, THOMAS POSCHMANN,
EBERHARD SCHMIDT-IHN, and JOSEF ZIEGER¹

Appeal 2015-003512
Application 13/125,773
Technology Center 3700

Before GEORGE R. HOSKINS, BRANDON J. WARNER, and
AMANDA F. WIEKER, *Administrative Patent Judges*.

WIEKER, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Gerardo Friedlmeier et al. (“Appellants”) appeal under 35 U.S.C. § 134(a) from the Examiner’s final rejection of claims 1, 3, and 21. We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

¹ According to Appellants, the real party in interest is Daimler AG. Br. 1 (filed March 11, 2014).

CLAIMED SUBJECT MATTER

The invention concerns “a pressure vessel for the storage of pressurized gaseous media.” Spec. ¶ 2. Claim 1, the sole independent claim, is illustrative of the subject matter on appeal, and recites:

1. A pressure vessel for storing pressurised gaseous media, comprising:
 - a liner that defines an interior for accommodation of a gaseous medium; and
 - a wrapping encompassing the liner that gives the pressure vessel dimensional stability,
 - wherein the wrapping of the pressure vessel is provided, at predetermined points, with holes which connect inside of the wrapping to outside of the wrapping, such that the wrapping is at least partially gas-permeable, so that the gaseous medium continuously penetrates through the liner and escapes from the pressure vessel through the wrapping, and
 - wherein the wrapping of the pressure vessel is provided with a coating on its outside, which is gas-permeable at least in the gas-permeable regions of the wrapping.

Br. 8 (Claims App.).

REJECTIONS

The claims stand rejected as follows:

- I. Claims 1 and 3 under 35 U.S.C. § 103(a) as unpatentable over Van Leer (US 3,269,132, iss. Aug. 30, 1966) and Noel (US 3,488,160, iss. Jan. 6, 1970).
- II. Claims 1, 3, and 21 under 35 U.S.C. § 103(a) as unpatentable over Van Leer, Mueller (US 2009/0236349 A1, pub. Sept. 24, 2009), and Dannewald (US 3,585,052, iss. June 15, 1971).

ANALYSIS

*Rejection I—Obviousness over Van Leer and Noel
Claims 1 and 3*

The Examiner finds that Van Leer discloses a pressure vessel substantially as claimed, including liner 13, wrapping 12, and coating 11. Final Act. 2–3; *see also* Ans. 3.² The Examiner finds that the wrapping “is at least partially gas-permeable or porous, so that the gaseous medium continuously penetrates through the liner and escapes,” and the coating “is gas-permeable at least in the gas-permeable regions of the wrapping.” Final Act. 2–3 (citing Van Leer, 1:53–61, Fig. 1). The Examiner finds that, although Van Leer does not specify the presence of “holes which connect the inside of the wrapping to the outside of the wrapping at predetermined points,” Noel teaches a vessel with holes 5 at predetermined points. *Id.* at 3 (citing Noel, 3:12–17, Fig. 1). The Examiner concludes it would have been obvious to have modified Van Leer’s porous wrapping to include holes, as taught by Noel, since the modification would have been the mere substitution of one known element for another to achieve predictable results. *Id.*; *see also* Ans. 3 (“[T]he combination of the two references merely substitutes holes for the pores of Van Leer which are located on the wrapping 12 and coating 11.”).

² In the Final Office Action, the Examiner inconsistently identifies the wrapping with both reference numerals 11 and 12. Final Act. 2–3. However, the content of the Examiner’s rejection, together with the use of numeral 12 in the Answer, satisfies us that the Examiner relies on Van Leer’s inner wall 12 as the claimed wrapping. *Id.*; *see also* Ans. 3. Appellants do not argue against this discrepancy in the rejection. *See generally* Br.

Appellants argue, first, that the proposed combination would not have been obvious “because Noel is directed to a tank for storing hydrogen while Van Leer’s tank is not suitable for storing hydrogen,” and instead stores only liquefied petroleum gas (LPG). Br. 3–4.

Appellants have not explained persuasively why the allegedly different gases stored by the vessels disclosed by Van Leer and Noel precludes the Examiner’s proposed combination. Namely, Appellants have not explained how the structure of the modified vessel would be incapable of storing a “pressurised gaseous medium,” as recited in claim 1, which is not restricted to hydrogen. Br. 3–4. Furthermore, Appellants’ argument is discredited by Van Leer, which explains that the vessel “is not restricted to the packaging etc. of L.P.G. [and] may advantageously be used for other purposes as well.” Van Leer, 1:16–19; *see also* Ans. 2.

Appellants also argue that “Noel discloses that the holes 5 are only included in the outermost layer 4.” Br. 4. Thus, according to Appellants, “the combination would only result in an outermost layer that has holes [not] a coating on the outside of a wrapping with holes.” *Id.*

We are not persuaded by this argument, which is not responsive to the rejection. The proposed combination “merely substitutes holes for the pores of Van Leer which are located on the wrapping 12 and coating 11.” Ans. 3; *see also* Final Act. 3. As such, the combination would not “only result in an outermost layer that has holes,” as Appellants argue, but instead would result in holes being substituted for the pores already existing in Van Leer’s wrapping 12 and coating 11. *See also* Noel, 3:10–21, 4:39–40 (explaining that diffused hydrogen gas is exhausted through holes 5).

Accordingly, Appellants have not apprised us of error in the Examiner's rejection of claims 1 and 3, which we sustain.

*Rejection II – Obviousness over Van Leer, Mueller, and Dannewald
Claims 1, 3, and 21*

As an alternative interpretation to that discussed above, the Examiner finds that Van Leer discloses a pressure vessel substantially as claimed, including liner 13 and wrapping 11, 12. Final Act. 4. The Examiner finds that the wrapping “is at least partially gas-permeable or porous, so that the gaseous medium continuously penetrates through the liner and escapes,” and further explains that “the gas-permeable property of Van Leer is provided by holes which connect the inside of the wrapping to the outside of the wrapping at predetermined points since the wrapping 11, 12 is porous (porous is defined as having minute spaces or holes through which air or liquid may pass).” *Id.* (citing Van Leer, 1:53–61, Fig. 1). The Examiner also finds that, under this interpretation, Van Leer fails to disclose a coating provided on the wrapping which comprises a layer of paint and which is gas-permeable at least in the gas-permeable regions of the wrapping. *Id.* The Examiner finds that “Mu[e]ller teaches it is desirable to paint the outside of a pressure vessel” and “Dannewald teaches a porous paint,” (*see id.*), such that it would have been obvious to have coated the outside of the Van Leer device with a porous paint, to obtain “the predictable result of making fine fractures better recognizable as taught by Mueller” and to retain the porosity taught by Van Leer. Ans. 3–4; *see also* Final Act. 4.

Appellants do not dispute the Examiner's construction of the claim limitation directed to “holes,” and we have not been apprised of error in that construction. *See generally* Br.

Appellants argue that the proposed combination would not have been obvious “because Dannewald’s paint is intended to prevent fracturing while Mueller’s paint is intended to fracture easily so that fractures may be readily identified before a burst occurs.” Br. 5 (citing Dannewald, 1:71–2:4, 4:4–24). Thus, according to Appellants, “Dannewald’s paint would have rendered the paint layer of Mueller’s device unsuitable for its intended purpose of identifying fractures in the paint layer.” *Id.* Appellants also argue that Dannewald’s paint includes asbestos, which is dangerous. *Id.* at 6.

We are unpersuaded by these arguments. The Examiner’s combination does not propose bodily incorporating Dannewald’s specific paint into the modified vessel taught by Van Leer and Mueller. Rather, the proposed combination simply relies on Dannewald’s teaching of a *porous paint* that allows the underlying substrate to breathe, not the particularly disclosed paint that contains asbestos and resists fracturing at high temperatures. *See* Dannewald, 1:71–2:4 (disclosing “a paint coating which is highly resistant to weather and chemical action under extreme temperatures,” up to about 3000°F”); 4:4–7 (disclosing that the paint is porous to allow the underlying substrate “to breath[e]”). Appellants have not argued persuasively against the Examiner’s conclusion that a porous paint would have been used in the proposed combination “[i]n order to keep the outer layer of the Van Leer device porous,” so that the device would remain operable. Ans. 3–4.

Accordingly, Appellants have not apprised us of error in the Examiner’s rejection of claims 1, 3, and 21, which we sustain.

DECISION

The Examiner’s decision to reject claims 1, 3, and 21 is affirmed.

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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