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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GEORG VETTER,¹
NICLAS HÅKANSSON, MARCUS BERGELIN,
and HANS PERSSON

Appeal 2018-001935²
Application 14/305,251
Technology Center 1700

Before MARK NAGUMO, GEORGE C. BEST, and JEFFREY R. SNAY,
Administrative Patent Judges.

NAGUMO, *Administrative Patent Judge.*

DECISION ON APPEAL

Välinge Innovation AB (“Vetter”) timely appeals under 35 U.S.C. § 134(a) from the Final Rejection³ of all pending claims 1–6, 8–14, 20–24, and 26–35. We have jurisdiction. 35 U.S.C. § 6. We affirm.

¹ The Applicant under 37 C.F.R. § 1.46, and hence the Appellant under 35 U.S.C. § 134, is the real party in interest, identified as Välinge Innovation AB (Sweden). (Appeal Brief, filed 11 July 2017 (“Br.”), 2.)

² Heard 22 August 2019. The Official Transcript will be made of record in due course.

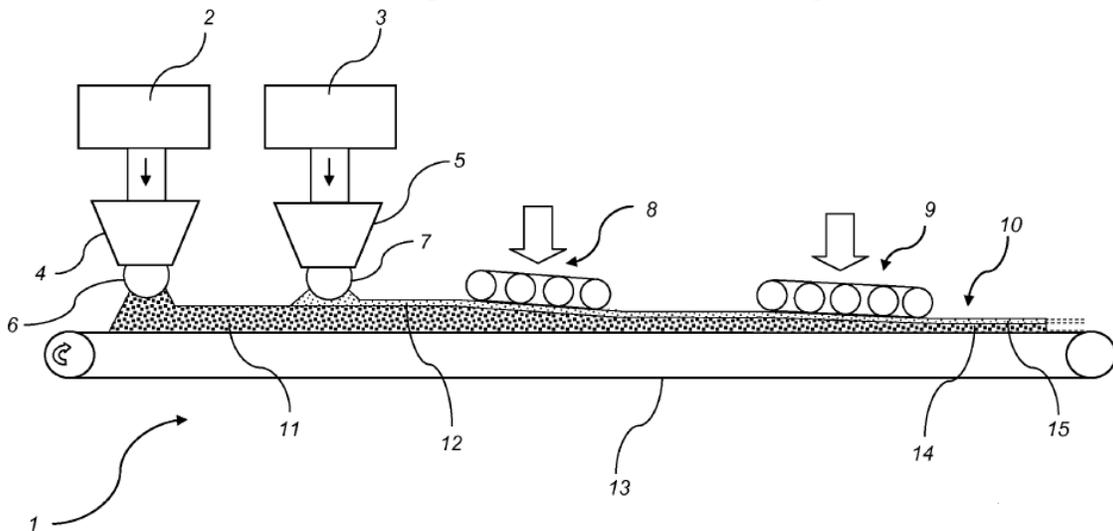
³ Office Action mailed 5 January 2017 (“Final Rejection”; cited as “FR”).

OPINION

A. Introduction⁴

The subject matter on appeal relates to methods of making a printable wood-based board, such as medium density fiber board (MDF), high density fiber board (HDF), or particle board. (Spec. 1, ll. 5–7.) Such boards are said generally to have a brown color, depending on the type of wood used as the raw material. (*Id.* at ll. 10–12.) As a result, a large amount of ink may be required to obtain the desired décor, particularly if a lighter color is desired, and a more expensive laminate or veneer may be necessary. (*Id.* at ll. 12–20.) Vetter seeks patent protection for methods said to provide a wood-based board having a pale-to-white surface on which pale or bright décors may be printed directly. (*Id.* at 2, ll. 4–11.)

An embodiment of the process is illustrated in Figure 1, below.



{Figure 1 shows a method for forming a wood-based board.}

⁴ Application 14/305,251, *Method of manufacturing a wood-based board*, filed 16 June 2014, claiming the benefit of Sweden 13507330, filed 17 June 2013. We cite the Specification as “Spec.”

Lignocellulosic particles⁵ are mixed with a binder resin to form a first mix in mixing container **2**.⁶ (*Id.* at ll. 7–9, 19–20.) Cellulosic particles⁷ are mixed with a second binder resin to form a second mix in mixing container **3**. (*Id.* at 10, ll. 3–4.) First and second binding resins may be thermosetting amino resins, such as a melamine formaldehyde resin, etc. (*Id.* at 9, ll. 20–56; 10, ll. 4–9.) The first mix, comprising lignocellulosic particles, are collected in container **4** and scattered by scattering device **6** onto carrier **13**, which may be a conveyer belt, to form first fibre mat **11**. (*id.* at 10, ll. 15–21.) Similarly, the second mix is scattered to form second fibre mat **12** on top of fibre mat **11**. (*Id.* at ll. 22–25.) Mats **11** and **12** may then be pre-pressed cold at station **8** (*id.* at 11, ll. 1–4), and then hot pressed at station **9**, to form base layer **14** and surface layer **15**, respectively, of board **10**. (*Id.* at ll. 1–24.)

⁵ “By lignocellulosic particles are meant particles comprising cellulose and/or hemicellulose and lignin. The particles may be wood fibres or vegetable fibres such as jute, linen, flax, hemp, bamboo, bagasse and sisal.” (Spec. 2, ll. 27–29.) For HDF or MDF, the particles are said to have, preferably, a length from 1–10 mm and a width from 0.1–1 mm. (Spec. 9, ll. 4–9.)

⁶ Throughout this Opinion, for clarity, labels to elements are presented in bold font, regardless of their presentation in the original document.

⁷ “By cellulosic particles are meant particles comprising no or substantially no lignin (e.g., less than 5% lignin). The particles may be produced from wood, preferably wood fibres or vegetable fibres such as cotton.” (Spec. 3, ll. 1–3.)

Claim 1 is representative and reads:

A method of manufacturing a wood-based board,
comprising:

applying at least one first fibre mat, comprising
a first mix comprising
lignocellulosic particles and
a first binder,
on a conveyor belt,

applying a second fibre mat, comprising
a second mix comprising
cellulosic particles and
a second binder,
on said at least one first fibre mat, and

pressing
said at least one first fibre mat into a base layer and
the second fibre mat into a surface layer
simultaneously using a hot press, thereby forming a
wood-based board,

*wherein the cellulosic particles of the second mix possess
less than 5% lignin.*

(Br., Claims App. 1; some formatting, and emphasis added.)

Remaining independent claims 20 and 29 are similar: but claim 20 requires that a surface layer comprising cellulosic particles be applied to the first fibre mat before pressing the first fibre mat (*id.* at 3); and claim 29 requires that the second mix is pigment free (*id.* at 5).

The Examiner maintains the following grounds of rejection:^{8, 9}

- A. Claims 1–6, 8–14 and 20–24, and 26¹⁰ stand rejected for provisional obviousness type double patenting in view of claims 1–18 of Application 14/321,288¹¹ in view of Pervan¹² or Ziegler.¹³
- B. Claims 1–6, 8, 10–14, 20–24, and 26–35 stand rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Pervan and Hsu.¹⁴
- B1. Claim 9 stands rejected under 35 U.S.C. § 103(a) in view of the combined teachings of Pervan, Hsu, and Ziegler.

⁸ Examiner’s Answer mailed 18 October 2017 (“Ans.”).

⁹ Because this application was filed after 16 March 2013, the effective date of the America Invents Act, we refer to the AIA version of the statute.

¹⁰ The statement of rejection has been amended from the statement in the Final Rejection (FR 3, ¶¶ 5–7) to reflect the claims pending at the time of the rejection.

¹¹ Kent Lindgren et al., *Method of manufacturing a building panel and a building panel*, Application 14/321,288, filed 01 July 2014; on appeal before the Patent Trial and Appeal Board, Appeal No. 2019-002985. Välinge Innovation AB (Sweden) is listed as the real-party-in-interest.

¹² Darko Pervan et al., *Fibre based panels with a wear resistance surface*, U.S. Patent Application Publication 2010/0300030 A1 (2010). According to Appellant, Pervan is commonly assigned to the present real-party-in interest. (Br. 7 VIII.A.)

¹³ Goran Ziegler and Kent Lindgren, *Bright coloured surface layer*, U.S. Patent Application Publication 2011/0177354 A1 (2011). Assigned to Välinge Innovation Belgium BVBA.

¹⁴ Wu Hsiung E. Hsu, *Process for making stable fiberboard from used paper and fiberboard made by such process*, U.S. Patent No. 5,134,023 (1992).

B. Discussion

The Board’s findings of fact throughout this Opinion are supported by a preponderance of the evidence of record.

Rejection A

Vetter does not contest the provisional obviousness-type double patenting rejection, which we therefore summarily affirm.

Rejections B–B1

The Examiner finds that Pervan discloses a process of board making that meets the limitations recited in claim 1, but for the disclosure of second cellulosic particles containing less than 5% lignin. (FR 5, ¶¶ 11–13.) The Examiner finds that Hsu discloses a fiberboard made from recycled paper that is substantially lignin free (*id.* at ¶ 14), and concludes that it would have been obvious to modify the top layer of Pervan to include the lignin-free composition disclosed by Hsu for aesthetic reasons as well as to provide a use for recycled paper. (*Id.* at ¶ 15.)

Vetter objects that “*Pervan* does not disclose utilizing cellulosic particles in the third layer **5** that is pressed into the surface layer of the panel **3**. *Pervan* contrastingly discusses utilizing high-lignin wood fibers. *Pervan*’s surface layer **5** is extensively described as including a mix of wood fibers comprising natural resins.” (Br. 9, ll. 5–9 (citing *Pervan* ¶¶ [0036], [0050], [0101], [0146], and claim 1¹⁵)). As Vetter emphasizes, “[n]atural

¹⁵ *Pervan* claim 1 reads, “A building panel comprising a surface layer and a core, the core comprises wood fibres, characterized in that the surface layer

resins comprise lignin.” (*Id.* at ll. 9–10.) While Hsu discloses the use of lignin-free materials to make fiberboard, Vetter urges that Hsu requires that “steam injection is essential and necessary for making dimensionally stable fiberboard from used paper fibers.” (*Id.* at 10, ll. 87–9 (quoting Hsu, col. 3, ll. 64–67, which explains that the crosslinking of hydroxyl groups of cellulose with formaldehyde associated with the resin is enhanced with the use of high pressure steam).) The skilled worker would not, Vetter argues, on the bases of these disclosures, have had a reasonable expectation of successfully using the nonlignin-containing cellulose surface layer taught by Hsu with the hot-press method taught by Pervan. (Br 11–12 (citing art of record demonstrating that hot press is regarded as a different and distinct method from steam injection pressing).)

The Examiner responds that “[t]he secondary teaching of recycled materials which lack lignin is not looked to for a teaching of the pressing technique. The skilled artisan would recognize that without evidence to the contrary the recycled lignin free material of Hsu could be substituted for the material of Pervan with expected results. Appellant has failed provide evidence that such a lignin free material could not be used in the Pervan process.” (Ans. 2, ll. 11–15.)

There are two major inter-related flaws in the Examiner’s reasoning. First, Vetter has come forward with evidence to the contrary, that the lignin-free material of Hsu could not be substituted for the lignin-containing material used by Pervan: namely the passage from Hsu quoted by Vetter and

comprises a substantially homogenous mix of wood fibres, which comprise natural resins, a binder and wear resistant particles.” (Pervan 15.)

reproduced in part *supra*. This evidence must be addressed, preferably with evidence supporting the Examiner's statement that the substitution would have been expected to proceed successfully with the hot pressing [only] described by Pervan. *Cf. Amgen Inc. v. Hoechst Marion Roussel, Inc.*, 314 F.3d 1313, 1355 (Fed. Cir. 2003) (“[W]e hold a presumption arises that both the claimed and unclaimed disclosures in a prior art patent are enabled.”); *In re Marzocchi*, 439 F.2d 220, 223 (CCPA 1971) (disclosure is presumed to be enabling, “unless there is reason to doubt the objective truth of the statements contained therein which must be relied on for enabling support.”) The second flaw in the Examiner's argument is the failure to come forward with evidence supporting the thesis that lignin-free cellulose would have been expected to crosslink with formaldehyde resins by hot-pressing as disclosed by Pervan.

The Examiner makes no findings regarding the teachings of the prior art regarding the remaining limitations that cure these defects.

On the present record, we are persuaded of harmful error in the appealed rejections for obviousness, and we reverse those rejections.

C. Order

It is ORDERED that the rejection of claims 1–6, 8–14, 20–24, and 26–35 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