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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte EDWARD RUSKIN

Appeal 2015-000961
Application 12/801,742
Technology Center 1700

Before BRADLEY R. GARRIS, JULIA HEANEY, and
MONTÉ T. SQUIRE, *Administrative Patent Judges*.

SQUIRE, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellant² appeals the Examiner's final rejection of claims 1–10 and 17–26. 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ In this decision, we refer to the Final Office Action appealed from, mailed November 26, 2013 (“Final Act.”), the Appeal Brief dated April 21, 2014 (“App. Br.”), the Examiner’s Answer to the Appeal Brief dated August 13, 2014 (“Ans.”), and the Appellant’s Reply Brief dated October 14, 2014 (“Reply Br.”).

² Appellant identifies Airbus Operations Limited as the Real Party in Interest. App. Br. 4.

The Claimed Invention

Appellant's disclosure relates to a composite component comprising a co-cured stack of composite laminate plies, which is said to be less susceptible to edge glow. Spec. 1; Abstract. Claim 1 is representative of the claims on appeal and is reproduced below from the Claims Appendix to the Appeal Brief (App. Br. 21) (key disputed limitations italicized):

1. An assembly comprising a first component and a second component, said first component having a lateral extent comprising a *co-cured stack of composite laminate plies*, said first component is joined to said second component along a common surface, *wherein the lateral extent of said first component is an edge free of laterally facing cut ply edges*, and wherein at least one of the plies is turned to abut said common surface.

The References

The Examiner relies on the following prior art references as evidence in rejecting the claims on appeal:

- | | | |
|--|--------------------|---------------|
| Noda et al.
(hereinafter "Noda") | US 2003/0062653 A1 | Apr. 3, 2003 |
| Hansen | US 2006/0280613 A1 | Dec. 14, 2006 |
| K. He et al., <i>The study of tapered laminated composite structures: a review</i> , 60 Composites Science and Technology 2643–2657 (2000) (hereinafter "He"). | | |

The Rejections

On appeal, the Examiner maintains the following rejections:

1. Claims 1–4, 7, 8, 17–20, 23, and 24 are rejected under pre-AIA 35 U.S.C. § 102(b) as being anticipated by He. Ans. 2; Final Act. 2.
2. Claims 5 and 21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over He. Ans. 3; Final Act. 4.

3. Claims 6 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over He, as applied above, in view of Hansen. Ans. 4; Final Act. 4.

4. Claims 9, 10, 25, and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over He, as applied above, in view of Noda. Ans. 4; Final Act. 5.

OPINION

Having considered the respective positions advanced by the Examiner and Appellant in light of this appeal record, we affirm the Examiner's rejections for the reasons set forth in the Answer to the Appeal Brief and Final Office Action appealed from, which we adopt as our own. Nevertheless, we highlight and address specific findings and arguments for emphasis as follows.

Rejection 1

Appellant argues independent claims 1 and 17 as a group and does not present argument for the separate patentability of dependent claims 2–10 and 18–26. We, therefore, select claim 1 as representative and the remaining claims stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds that He teaches a composite laminate structure satisfying all of claim 1's limitations and concludes that the reference anticipates claim 1. Ans. 2, 3 (citing He, Abstract, part (b) of Fig. 5).

Appellant argues that the Examiner's rejection should be reversed because the Examiner has failed to establish a prima facie case of anticipation under § 102. App. Br. 9, 15. In particular, Appellant argues that the Examiner has failed to establish that He teaches the following

limitations of claim 1: (1) “an edge free of laterally facing cut ply edges”; (2) “at least one of the plies is turned to abut said common surface”; and (3) “said first component having a lateral extent comprising a co-cured stack of composite laminate plies.”³ *Id.* at 10–14.

Appellant further argues that this rejection should be reversed because “[t]he Examiner fails to appreciate that He et al has no recognition of the ‘edge glow’ problem solved by Applicant’s claimed invention” and that “there would be no reason or motivation to . . . solve this unrecognized problem.” App. Br. 15 (emphasis omitted).

We are not persuaded by Appellant’s arguments. To serve as an anticipatory reference, “the reference must disclose each and every element of the claimed invention, whether it does so explicitly or inherently.” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009).

Based on the record before us, we are persuaded that the Examiner’s finding that He teaches all of claim 1’s limitations and conclusion that He anticipates claim 1 are supported by a preponderance of the evidence. He, Abstract, Figs. 1 and 5, p. 2643.

As the Examiner found (Ans. 2, 3, 6) and contrary to Appellant’s argument, He does teach a composite laminate structure having “an edge free of laterally facing cut ply edges” and that “at least one of the plies is turned to abut said common surface.” In particular, He’s Figure 5(b) depicts a laminate structure having a first component in which the ply edges are tapered downward such that they are abutting the common surface shared by the first and second component and are not facing laterally, which reads on

³ We note that the limitations argued by Appellant appear only in claim 1.

claim 1 and corresponds to Figures 3 and 5 of the Specification. Appellant's argument exposes no reversible error in the Examiner's analysis and factual findings in this regard.

Appellant's contention that "[e]ach of He's horizontal plies has a cut edge which faces laterally" (App. Br. 11) is unpersuasive because it is unsupported by the evidence. According to the evidence, each of He's ply edges does not face laterally. He, Fig. 5(b), Abstract. Rather, as the Examiner found (Ans. 2, 3, 6) and previously discussed above, He's ply edges are actually tapered downward to abut the common surface. *Id.*

Appellant's contention that He "does not disclose the negative limitation set out in claim 1" and "in fact teaches the opposite" (App. Br. 11) is equally unpersuasive because it is conclusory and, without more, insufficient to establish reversible error in the Examiner's findings and analysis in this regard. *In re De Blauwe*, 736 F.2d 699, 705 (Fed. Cir. 1984).

We do not find Appellant's argument that He does not disclose a "co-cured stack of composite laminate plies" (App. Br. 13) persuasive for the well-stated reasons provided by the Examiner at page 7 of the Appeal Brief. In particular, we agree with the Examiner's finding (Ans. 7) that He discloses a composite that it is made of up multiple laminate plies that are cured together. He, Fig. 5. We also agree with the Examiner's finding, which Appellant does not meaningfully rebut in the appeal briefing, that the recitation "co-cured" in claim 1 is a product-by-process limitation and thus, is not further limiting insofar as the structure of the claimed laminate. *In re Thorpe*, 777 F.2d 695, 698 (Fed. Cir. 1985).

Appellant's argument that He does not recognize the "edge glow" problem solved by Applicant's claimed invention" (App. Br. 15) is

misplaced because a reference “may be directed to an entirely different problem from the one addressed by the inventor, yet the reference will still anticipate if it explicitly or inherently discloses every limitation recited in the claims.” *In re Schreiber*, 128 F.3d 1473, 1478 (Fed. Cir. 1997).

Moreover, He directly relates to the field of and expressly discloses laminate composites for use in “aircraft-wing” applications, which is the same field as Appellant’s claimed invention. *See* He, p. 2643 (disclosing the “increasing use of the tapered composites in commercial and military aircraft applications), (disclosing that “[o]ther applications include composite aircraft-wing skins, helicopter flexbeams, flywheels, etc.”), Fig 1. (depicting “commercial composite” used in helicopter “rotor-blade yoke assembly”); Spec. 1 (“Figure 1 is a schematic cross-sectional view through and aircraft wing box.”), Figs. 1–5 (depicting laminate structure of aircraft wing box assembly and components).

Accordingly, we affirm the Examiner’s rejection of claims 1–4, 7, 8, 17–19, 20, 23, and 24 under pre-AIA 35 U.S.C. § 102(b) as being anticipated by He.

Rejections 2, 3, and 4

Appellant does not present separate arguments in response to the Examiner’s Rejections 2, 3, and 4, stated above. Rather, Appellant repeats and incorporates by reference the same arguments presented above in response to Rejection 1, stating that:

Each of these obviousness rejections incorporates He et al. as the primary reference and therefore the above comments distinguishing the He reference from independent claims 1 and 17, from which the above claims depend, are herein incorporated by reference.

App. Br. 16. Accordingly, we do not find Appellant’s argument in this regard persuasive for the same reasons discussed above in affirming the Examiner’s Rejection 1.

Appellant further argues that Rejections 2, 3, and 4 should be reversed because: (1) “[t]he Examiner does not show that either He by itself or in combination with Hansen and/or Noda discloses the above claimed features in independent claim 1”; (2) “the Examiner fails to provide any evidence to establish that He et al. either taken by itself or in combination with the secondary references teaches all of the limitations of Appellant’s independent claims 1 and 17 or the claims dependent thereon”; and (3) “[t]he Examiner fails to provide any ‘analysis’ of reasons for combining the references.” App. Br. 16, 17 (emphasis omitted).

We do not find these arguments persuasive because they are conclusory and naked assertions that the prior art fails to teach or suggest a claim’s limitations which are not arguments in support of separate patentability. *Cf. In re Lovin*, 652 F.3d 1349, 1356–57 (Fed. Cir. 2011); *see also* 37 C.F.R. § 41.37(c)(1)(iv).

Moreover, we find that a preponderance of the evidence and sound technical reasoning supports the Examiner’s findings (Ans. 3–5) regarding the teachings of the prior art and stated reasoning for why one of ordinary skill in the art would have combined these teachings to arrive at the claimed invention. He, Figs. 1, 5; Hansen, Abstract; Noda ¶¶ 4, 10, 11; Ans. 4 (explaining that one of ordinary skill in the art would have combined He’s and Hansen’s teachings to “improve the product’s lightning resistance”); Ans. 5 (explaining that one of ordinary skill would have combined He’s and Noda’s teachings because “doing so would improve the robustness of the

product” and “Noda explicitly teaches that such aviation parts may be made from laminate composite[s] like those of He”). Appellant’s arguments reveal no reversible error in the Examiner’s analysis and findings in this regard.

Appellant’s teaching away arguments (App. Br. 18, 19) are unpersuasive because Appellant does not identify sufficient evidence to support them, and we will not read into the references a teaching away where no such language exists. *Cf. DyStar Textilfarben GmbH v. C.H. Patrick Co.*, 464 F.3d 1356, 1364 (Fed. Cir. 2006); *In re Fulton*, 391 F.3d 1195, 1201 (finding that there is no teaching away where the prior art’s disclosure “does not criticize, discredit, or otherwise discourage the solution claimed”).

Appellant’s assertions that “He teaches away from any possible edge being ‘free of laterally facing cut ply edges[]’” and “clearly leads one of ordinary skill in the art away from the claimed invention,” (App. Br. 19), without more, are conclusory and insufficient to establish that the reference teaches away from the claimed invention. *De Blauwe*, 736 F.2d at 705 (Fed. Cir. 1984).

Accordingly, we affirm the Examiner’s Rejections 2, 3, and 4 stated above.

DECISION/ORDER

The Examiner’s rejections of claims 1–10 and 17–26 are affirmed.

It is ordered that the Examiner’s decision is affirmed.

Appeal 2015-000961
Application 12/801,742

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