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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/705,290	12/05/2012	Thomas Kruse	AIRBUS 3.0-472	3210
530	7590	10/27/2016	EXAMINER	
LERNER, DAVID, LITTENBERG, KRUMHOLZ & MENTLIK 600 SOUTH AVENUE WEST WESTFIELD, NJ 07090			HANDVILLE, BRIAN	
			ART UNIT	PAPER NUMBER
			1783	
			NOTIFICATION DATE	DELIVERY MODE
			10/27/2016	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte THOMAS KRUSE and PAULIN FIDEU¹

Appeal 2015-005624
Application 13/705,290
Technology Center 1700

Before BRADLEY R. GARRIS, BEVERLY A. FRANKLIN, and JULIA HEANEY, *Administrative Patent Judges*.

GARRIS, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134, Appellants appeal from the Examiner's rejection of claims 1–5 under 35 U.S.C. § 103(a) as unpatentable over Pacchione (WO 2011/069899 A2, published June 16, 2011, with US 2013/0149501 A1, published June 13, 2013, relied on and cited to as the English language equivalent) in view of Kleineberg (EP 1 531 035 A1, published May 18, 2005, with the machine translation of record relied on and cited to as the English language equivalent) and MacDonald (US

¹ Airbus Operations GmbH is identified as the real party in interest. Br. 2.

6,450,450 B1, issued Sept. 17, 2002). We have jurisdiction under 35 U.S.C. § 6.

We AFFIRM.

Appellants claim a fiber composite component assembly comprising first and second plate-shaped composite structures (1, 2) configured to be joined in an overlap connection having an adhesive layer and a mechanical reinforcement means (5), wherein the composite components comprise a spaced plurality of partial regions (3a, 3b) not containing synthetic resin and wherein the mechanical reinforcement means is configured to pass through the partial regions (sole independent claim 1; Figs. 1–2).

A copy of representative claim 1, taken from the Claims Appendix of the Appeal Brief, appears below.

1. A fiber composite component assembly comprising:
 - at least first and second plate-shaped composite structures configured to be joined in the form of an overlap connection and made from synthetic-resin embedded fibers and integrally interconnected by an adhesive layer arranged in between; and
 - mechanical reinforcement means;
 - wherein the at least first and second fiber composite components comprise a plurality of partial regions not containing synthetic resin, said partial regions arranged in series with an edge spacing and a web spacing, the partial regions configured to be brought to flush conformity with each other and to be arranged so as to be spaced apart from each other; and
 - wherein the mechanical reinforcement means is configured to be bonded with synthetic resin and to pass through the partial regions.

Appellants do not present separate arguments specifically directed to dependent claims 2–5 (Br. 16). Accordingly, these dependent claims will stand or fall with their parent independent claim 1.

We sustain the Examiner’s rejection for the reasons expressed in the Final Action, the Answer, and below.

The Examiner finds that Pacchione discloses a fiber composite component assembly comprising first and second plate-shaped composite structures joined in an overlap connection having an adhesive layer and a mechanical reinforcement means but fails to disclose a plurality of partial regions not containing synthetic resin as required by claim 1 (Final Action 3–4, citing, *e.g.*, Pacchione Figs. 7c and 7d; Ans. 3–4). The Examiner concludes that, in view of Kleineberg’s teaching of removing resin from separate composites and then joining the composites by re-infiltrating them with resin, it would have been obvious (i) to remove the synthetic resin from Pacchione’s composite structures prior to joining them with the mechanical reinforcement means in order to avoid the health hazards taught by MacDonald to be associated with dust generated by mechanically joining composites that have cured resin therein and (ii) to re-infiltrate the composites with resin after joining them with mechanical reinforcement means (Final Action 4–6; Ans. 4–6).

Appellants argue that Pacchione does not disclose plate-shaped composite structures joined in an overlap connection as claimed (Br. 5–6) but subsequently concede that this claim 1 feature is described in Pacchione’s paragraph 59 (*id.* at 6). We emphasize that, in responding to

Appellants' arguments in the Final Action, the Examiner cited paragraph 59 as disclosing the claim feature in question (Final Action 7).

Appellants further contend “[in] the only embodiment of *Pacchione* wherein both the fibre composite component 2 and the structural component 3 are cured, there is no mechanical reinforcement means” (Br. 13, citing *Pacchione* ¶ 60).

Appellants' contention is factually erroneous. In the paragraph cited by Appellants, *Pacchione* expressly teaches that the connection of these components includes “metal foil 4 . . . formed with two anchoring portions 7 and 8 [i.e., mechanical reinforcement means] . . . inserted between the components 2 and 3” (*Pacchione* ¶ 60).

Appellants argue that “[the Examiner has provided] no articulated line of reasoning as to why an ordinary artisan would apply the *Kleineberg* process to modify the *Pacchione* components 2, 3” (Br. 8).

Again, Appellants' argument is factually erroneous. In the rejection itself, the Examiner explicitly articulates a line of reasoning wherein one with ordinary skill in this art would have modified *Pacchione* with the *Kleineberg* process in order to avoid the health hazards taught by *MacDonald* (Final Action 5–6; Ans. 4–5). Indeed, Appellants subsequently acknowledge this reasoning (Br. 11) and disagree with it (*id.* at the 11–12). However, this disagreement is focused ineffectively on the applied references individually rather than their combined teachings as correctly observed by the Examiner (Ans. 10–12).

Finally, Appellants contend “the Examiner further fails to articulate why an ordinary artisan would employ the *Kleineberg* process for removing matrix resin from a plurality of regions of each of the fibre composite 2 and the structural component 3 of *Pacchione* [as required by claim 1]” (Br. 8; *see also id.* at 14–16).

We do not agree. In the rejection, the Examiner concludes that, to avoid the health hazards disclosed by MacDonald, it would have been obvious “to remove the resin matrix [of *Pacchione* via the process taught by *Kleineberg*] in an area where mechanical reinforcement means are required” (Final Action 6 (emphasis added); Ans. 5). For example, in the Figures 7c–7d embodiment of *Pacchione*, resin would be removed via the *Kleineberg* process in the respective areas or regions where individual mechanical reinforcement means 7 and 8 are located because, in accordance with the teachings of MacDonald, these are the regions where health hazards would be created if resin were not removed prior to mechanical reinforcement. Concerning the spacing requirement of claim 1, an artisan would not have removed resin in the spaces extending from these regions to the composite edge, to the composite web, or to adjacent regions because such spaces do not present the health hazard potential taught by MacDonald.

For the reasons stated above and given by the Examiner, Appellants fail to show error in the § 103 rejection before us.

The decision of the Examiner is affirmed.

Appeal 2015-005624
Application 13/705,290

TIME PERIOD FOR RESPONSE

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