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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte ANDREAS HARMS and MATTHIAS HOFFMANN

Appeal 2019-004724
Application 15/361,570
Technology Center 1700

Before N. WHITNEY WILSON, JULIA HEANEY, and LILAN REN,
Administrative Patent Judges.

HEANEY, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE¹

Pursuant to 35 U.S.C. § 134(a), Appellant² appeals from the Examiner's decision to reject claims 1–14. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

¹ This Decision refers to the Specification filed Nov. 28, 2016 (“Spec.”), Final Office Action dated Sept. 7, 2018 (“Final Act.”), Advisory Action dated Nov. 26, 2018 (“Advisory Act.”), Appeal Brief dated Jan. 14, 2019 (“Appeal Br.”), and Examiner's Answer dated Mar. 27, 2019 (“Ans.”).

² We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Diehl Aviation Laupheim GmbH. Appeal Br. 1.

We AFFIRM.

CLAIMED SUBJECT MATTER

The claims are directed to a soft touch surface sandwich element with a fire-retardant layer in the interior of the sandwich element. Claim 1, reproduced below, is the sole independent claim:

1. A sandwich element, comprising:
an interior of the sandwich element;
a fire-retardant layer disposed in said interior;
a base element; and
a structural element;
said structural element forming a soft touch surface of the sandwich element;
said structural element containing at least two functional layers;
one of said functional layers being a soft touch layer and another of said functional layers being a decorative layer forming said soft touch surface; and
said soft touch layer being disposed between said decorative layer and said base element.

Appeal Br. 11 (Claims Appendix)(emphasis added).

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Hutchings	US 6,102,995	Aug. 15, 2000
Spengler	US 8,012,290 B2	Sept. 6, 2011
Gonzalez–Garcia (“Garcia”)	US 2015/0190987 A1	July 9, 2015

REJECTIONS³

1. Claims 1–9, 13, and 14 are rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Spengler and Garcia. Final Act. 5.
2. Claims 10–12 are rejected under 35 U.S.C. § 103 as being unpatentable over the combination of Spengler, Garcia, and Hutchings. Final Act. 8.

OPINION

Rejection 1

Claims 1, 3–9, 13, and 14

Appellant argues claim 1 and does not separately argue dependent claims 3–9, 13, and 14. Appeal Br. 4–9. Accordingly, we discuss claim 1 below; claims 3–9, 13, and 14 stand or fall with claim 1. 37 C.F.R. § 41.37(c)(1)(vii).

The Examiner finds that Spengler teaches a sandwich element comprising an interior, base element (substrate 1), and soft touch layer (intermediate cushioning layer 2) between decorative layer (decor layer 3) and the base element. Final Act. 5 (citing Spengler 6:30–37); *see* Spengler Fig. 2. The Examiner acknowledges that Spengler does not teach a fire-retardant layer disposed in the interior of the sandwich element, but finds that Garcia teaches a halogen free fire-retardant layer applied to the fiber containing layers of a multilayer substrate. Final Act. 5–6 (citing Garcia

³ The Examiner withdrew the rejection of claim 9 as unpatentable under 35 U.S.C. § 112(a) prior to this Appeal. Advisory Act. 2.

¶¶ 27, 31–34). The Examiner determines that it would have been obvious to one of ordinary skill in the art to apply Garcia’s halogen-free fire-retardant coating to the surface of Spengler’s base element to provide a high level of fire resistance. *Id.* at 6.

Appellant argues that claim 1 requires “a fire-retardant layer disposed in said interior [of the sandwich element].” Appeal Br. 4. Appellant admits that Garcia teaches a fire-retardant protective coating on an outer surface with decorative coatings on top of the fire-retardant protective coating, but argues that because the decorative coatings are necessarily fire retardant, Garcia does not teach a fire-retardant layer in the interior of the sandwich element. *Id.* at 4–5 (citing Garcia Fig. 3, ¶¶ 27, 34). The Examiner responds that there is no disclosure in Garcia that requires the decorative coatings to necessarily be fire retardant and even if Garcia’s decorative coatings were fire retardant, there is no requirement in the claim that the decorative coatings must lack fire resistance.

Appellant’s argument does not persuasively identify reversible error. There is no requirement in open-ended claim 1 that the decorative layer lack fire resistance. *See* Ans. 8. Appellant does not dispute that Garcia includes a fire-retardant layer in the interior of the sandwich element, and claim 1 also encompasses a fire-retardant decorative layer. Accordingly, we affirm the rejection of claim 1.

Claim 2

Claim 2 depends from claim 1 and additionally recites “said fire-retardant layer is disposed between said base element and said structural element.” Appeal Br. 11 (Claims Appendix). Appellant argues that because Spengler teaches surface decoration 4’, which may be a desired design or

pattern, on outer surface 4 of decor layer 3, the combination of Spengler and Garcia would lead one of ordinary skill in the art to place the fire-retardant layer between outer surface 4 and surface decorative layer 4' above soft touch cushioning layer 2. *Id.* at 7–8 (citing Spengler Fig. 2, 6:30–55). Appellant argues that because claim 2 requires the fire-retardant layer be disposed between the base element and the structural element, which comprises a decorative layer and a soft touch layer, the combination of Spengler and Garcia would not lead to a sandwich element according to claim 2. *Id.*

Appellant's argument does not persuasively identify reversible error. Garcia teaches a multilayer structure with flame resistant protective coating 28 formed directly on upper skin 24, which is made of natural fibers in order to provide a fire resistant coating that does not require the natural fibers to be soaked with a flame-retardant solution. Garcia Fig. 1, ¶¶ 24, 32, and 34. Spengler teaches that substrate base element 1 may be made of natural fibers. Spengler 6:1–4. In view of these teachings, the Examiner's determination that a person of ordinary skill in the art would place Garcia's fire-retardant protective layer directly on the substrate base element of Spengler in order to avoid the need to soak the natural fibers with a flame-retardant solution is reasonable. *See* Ans. 10–11 (citing Spengler 6:1–4; Garcia ¶ 32). The combination of Spengler and Garcia would put a flame-retardant layer between the base element and the structural element, which is encompassed by claim 2. Accordingly, we affirm the rejection of claim 2.

Rejection 2

The Examiner finds that the combination of Spengler and Garcia teaches the limitations of the sandwich element recited in claim 1 as described above, but does not teach the fire-retardant layer is an intumescent fire-retardant layer. Final Act. 8–9. The Examiner finds that Hutchings teaches using an intumescent composition containing aluminum hydroxide and expandable graphite as a fire-retardant coating composition suitable for producing a hard coating on a substrate. *Id.* (citing Hutchings 15:20–23). The Examiner determines that it would have been obvious to a person of ordinary skill in the art to use an intumescent composition containing aluminum hydroxide and expandable graphite in Garcia’s fire-retardant coating composition in order to provide a known and suitable composition for forming a fire-retardant coating on the substrate. *Id.*

Appellant argues that Hutchings only teaches an intumescent coating on a top surface and therefore does not teach the claimed internal intumescent fire-retardant layer. Appeal Br. 8–9.

Appellant’s argument does not persuasively identify reversible error, because it is not responsive to the rejection, and argues the references individually. The rejection does not rely on Hutchings to teach the location of the fire-retardant layer, but rather its composition. *See* Ans. 12. The fact that Hutchings teaches the intumescent layer on a top surface of a substrate does not prevent the combination of Spengler, Garcia, and Hutchings from teaching other coatings or layers on the fire-retardant layer. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference Rather, the test is what the

combined teachings of the references would have suggested to those of ordinary skill in the art.”). Accordingly, we affirm the rejection of claim 10. Appellant does not separately argue dependent claims 11 and 12 (Appeal Br. 8–9), and therefore, we also affirm the rejection of those claims. 37 C.F.R. § 41.37(c)(1)(vii).

CONCLUSION

The Examiner’s rejections are **AFFIRMED**.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–9, 13, 14	103	Spengler, Garcia,	1–9, 13, 14	
10–12	103	Spengler, Garcia, Hutchings	10–12	
Overall Outcome:			1–14	

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). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED