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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
15/064,281	03/08/2016	James R. Waters	0708-00-US-04-ABP	5615
112	7590	11/14/2018	EXAMINER	
Armstrong World Industries, Inc. 2500 Columbia Avenue Lancaster, PA 17603			IHEZIE, JOSHUA K	
			ART UNIT	PAPER NUMBER
			3633	
			NOTIFICATION DATE	DELIVERY MODE
			11/14/2018	ELECTRONIC

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAMES R. WATERS, JAMES P. RINEER,
BRIAN L. SPRINGER, and WILLIAM H. FRANTZ

Appeal 2018-001907
Application 15/064,281
Technology Center 3600

Before MICHAEL L. HOELTER, WILLIAM A. CAPP, and
BRANDON J. WARNER, *Administrative Patent Judges*.

CAPP, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants¹ seek our review under 35 U.S.C. § 134(a) of the final rejection under 35 U.S.C. § 103 of claims 1–3, 9, and 11–22 as unpatentable over Anderson (US 4,693,174, iss. Sept. 15, 1987) and Hintsä (US 4,438,613, iss. Mar. 27, 1984), and claims 4–6 and 8 over Anderson, Hintsä, and Holtsford (US 2,785,099, iss. Mar. 12, 1957). We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ Armstrong World Industries, Inc. is the Applicant and real party in interest. Appeal Br. 2.

THE INVENTION

Appellants' invention relates to suspended ceiling systems. Spec. ¶¶ 2–4. Claim 1, reproduced below, is illustrative of the subject matter on appeal.

1. A ceiling system comprising:
 - a frame comprising a plurality of struts;
 - a plurality of modules, each module comprising a panel having an upper surface opposite a lower surface, and a plurality of hook members;
 - each of the hook members comprising:
 - an upstanding section extending substantially perpendicular to the top surface of the panel;
 - a hook portion at a top end of the upstanding section, the hook portion extending from the upstanding section in a first direction, the hook portion defining a downwardly-facing open slot; and
 - an attachment flange at a bottommost end of the upstanding section, the attachment flange comprising a front section extending from the upstanding section in the first direction, the front section vertically aligned with and located beneath the downwardly-facing open slot of the hook portion;
 - the modules mounted to the frame, and wherein for each of the modules, the hook portions of the hook members fit over and rest upon the struts, the struts located in the downwardly-facing open slots of the hook portions; and
 - wherein the attachment flange is coupled to the upper surface of the panel.

OPINION

Unpatentability of Claims 1–3, 9, and 11–22 Over Anderson and Hintsä

Claims 1, 13, and 18

Independent claims 1, 13, and 18 are argued together and Appellants do not separately argue the claims that depend therefrom. Appeal Br. 5–12.

We select claim 1 as representative and claims 2–3, 9, and 11–22 stand or fall with claim 1. *See* 37 C.F.R. § 41.37(c)(1)(iv).

The Examiner finds that Anderson discloses the invention substantially as claimed except for a flange on the bottom of the hook member that couples to an upper surface of the panel. Final Action 2. The Examiner relies on Hintsä as satisfying this limitation and concludes that it would have been obvious to so modify Anderson. *Id.* at 2–3. According to the Examiner, a person of ordinary skill in the art would have done this to increase the aesthetic appearance of the ceiling system. *Id.* at 3.

Appellants argue that the lower portion of Anderson’s hook penetrates through and protrudes below the deflecting shield panel that it supports. Appeal Br. 10. Appellants contend that such is necessary for adjusting the vertical disposition of the deflecting shield. *Id.*

Stated simply, the bracket means 20 of Anderson cannot be attached to the upper surface of the deflecting shield 28 because doing so destroys the user’s ability to custom position the deflecting shield 28 below and relative to an HVAC vent. *Id.* According to Appellants, the Examiner’s proposed combination “destroys the intended technical function of Anderson.” *Id.* at 10–11.

Continuing on, Appellants argue that deflecting shield 28 is disposed below HVAC air outlet 10. *Id.* at 11. Appellants contend that suspended deflecting shield 28 is never coplanar with the outlet or surrounding ceiling panels. *Id.* For all intents and purposes, Appellants’ position is that a person of ordinary skill in the art would not combine the teachings of Anderson and Hintsä in view of the vertical displacement and disposition features and requirements of Anderson. *Id.* at 11–12.

In response, the Examiner explains that:

The attachment flanges of the combination of Anderson and Hintsä can still be adjusted prior to being attached to the panels in the field. The combination provides the advantage of increasing the aesthetic appeal of the ceiling system since the attachment flanges cannot be seen from below the ceiling system, while allowing height adjustability of the attachment flange during installation since the attachment flange can be cut to the desired height before the panel is hung from it. Therefore, the modification does not destroy the intended technical goal of Anderson.

Ans. 3. In reply, Appellants disagree with the Examiner and essentially repeat their arguments from their Appeal Brief. Reply Br. 3.

Anderson is directed to an air deflecting means that exhibits adjustable brackets for suspending a deflecting shield at variable distances from an air vent positioned within a dropped ceiling and where the air vent is disposed vertically above the deflecting shield. Anderson, Abstract, Fig. 1. Of particular interest to the instant case, Anderson discloses suspension bracket means 20 that features loop member 38 which includes cut section 40. *Id.* col. 7, ll. 35–40; Fig. 3. Such cut section is formed and shaped so as to define a downwardly-facing open slot that is adapted to receive a portion of inverted T-shaped support member 14. *Id.*

Hintsä is directed to a suspended ceiling panel system that is very similar to Appellants' invention. Hintsä, Abstract, Figs. 1–4. As with the instant invention, Hintsä suspends a plurality of ceiling panels from a grid of support struts. *Id.* Fig. 3. The ceiling panels are hung from the support grid using a plurality of torsion spring elements 12 which are clipped to the panel using clip member 10. *Id.* col. 4, ll. 30–40, col. 6, ll. 1–13. Clip 10 features deformable bottom portion 5 that is snapped into channel 212 of a frame

member. *Id.* col. 6, ll. 1–13. The Examiner finds, and Appellants do not dispute, that bottom portion 5 corresponds to Appellants’ claimed attachment flange. Final Action 3; *see also* Claims App. claim 1.

We find unpersuasive Appellants’ argument that a person of ordinary skill in the art would not modify Anderson by the teachings of Hintsa because such would “*destroy the intended technical goal*” of Anderson. Appeal Br. 10. Appellants’ argument is predicated on the unwarranted assumption that the panel suspension teachings of Anderson are applicable only to deflecting shields and that a person of ordinary skill in the art would not be able to envision alternative uses. However, it is common sense that familiar items may have obvious uses beyond their primary purposes, and a person of ordinary skill often will be able to fit the teachings of multiple patents together like pieces of a puzzle. *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 420 (2007). A person of ordinary skill in the art would have been able to readily envision that Anderson’s loop member 38 with downward-facing slot 40 could be used with alternative means of attachment to a ceiling panel, including through means of a flange coupled to the upper surface of the panel as taught by Hintsa. Stated differently, a person of ordinary skill in the art would have readily understood that Anderson’s loop 38 and slot 40 could be used to hang ceiling panels and would not be limited to just hanging deflecting shields.

In addition, we find persuasive the Examiner’s reasoning that Anderson’s suspension bracket means 20 could be cut to the desired height before the panel is hung. Ans. 3. With such modification, cross-member means 26 becomes an attachment flange that can be attached to the upper

surface of the panel using known attachment means. *See e.g.*, Hints, col. 5, ll. 58–61, Fig. 4 (channel portion 212).

In view of the foregoing discussion, we determine the Examiner's findings of fact are supported by a preponderance of the evidence and that the Examiner's legal conclusion of unpatentability is well-founded. Accordingly, we sustain the Examiner's unpatentability rejection of claims 1–3, 9, and 11–22.

*Unpatentability of Claims 4–6 and 8
Over Anderson, Hints, and Holtsford*

In this ground of rejection, Appellants argue claim 4, but do not raise separate arguments for the patentability of claims 5, 6, and 8. Appeal Br. 12–14. We address the arguments for claim 4, with claims 5, 6, and 8 standing or falling with claim 4. 37 C.F.R. § 41.37(c)(1)(iv).

Claim 4 depends from claim 1 and adds the limitation: “wherein each of the upstanding section and the front section is a plate member.” Claims App.² The Examiner relies on Holtsford as disclosing a hook member (bracket 14) for hanging ceiling tiles comprising a plate member. Final Action 6–7.

Appellants do not deny that Holtsford discloses a hook member comprised of plate material. *See generally* Appeal Br. Instead, Appellants argue that it would not be obvious to modify the hook member geometry of Anderson with the teachings of Holtsford's plate member. Appeal Br. 14. In response, the Examiner states that Holtsford is merely relied on to show

² As we understand the invention, the “plate member” can be made of almost any type of substantially flat structural material such as sheet metal or plastic.

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that it was known to fabricate attachment flanges in ceiling systems from plate-like material. Ans. 14.

As amply demonstrated by the teachings of Anderson, Hintsä, and Holtsford, a person of ordinary skill in the art would have been familiar with a variety of materials and structures for fabricating a hook like structure and associated attachment flange for hanging ceiling tiles. Appellants present neither evidence nor persuasive technical argument that fabricating a hook member with an attachment flange out of plate material requires more than ordinary skill or produces unexpected results. Thus, we are not apprised of error and we sustain the Examiner's rejection of claims 4–6, and 8.

DECISION

The decision of the Examiner to reject claims 1–6, 8, 9, and 11–22 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)(1)(iv).

AFFIRMED