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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte LAWRENCE J. ANDREWS,
MARK S. KRAMPITZ, and GARY M. SICH

Appeal 2014-009195
Application 12/559,694
Technology Center 3600

Before JILL D. HILL, ERIC C. JESCHKE, and PAUL J. KORNICZKY,
Administrative Patent Judges.

JESCHKE, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Lawrence J. Andrews et al. (“Appellants”) seek review under 35 U.S.C. § 134(a) of the Examiner’s decision, as set forth in the Final Office Action dated November 20, 2013 (“Final Act.”), rejecting claims 6, 7, 9–13, 15, 16, and 18–24 under 35 U.S.C. § 103(a) as unpatentable over Hewitt (US 2,236,266, issued March 25, 1941) and Farmer (US 1,615,370, issued Jan. 25, 1927).¹ We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Appellants identify Wabtec Holding Corp. as the real party in interest. Appeal Br. 2.

BACKGROUND

The disclosed subject matter “relates to brake cylinders and, more particularly, to venting arrangements for a non-pressure head end of a brake cylinder.” Spec. ¶ 2. Claims 6, 15, and 19 are independent. Claim 6 is reproduced below, with emphasis added:

6. A brake cylinder, comprising:
 - a cylinder body comprising an annular flange, the cylinder body including a mounting portion positioned on an outer surface of the cylinder body for securing the brake cylinder to a railway vehicle, the mounting portion having at least first and second mounting orientations, the first orientation of the mounting portion being rotated relative to the second orientation of the mounting portion;
 - a non-pressure head comprising an annular flange and a head portion extending from the annular flange, the annular flange of the non-pressure head comprising a plurality of bosses, *the plurality of bosses are equally spaced relative to each other and define a plurality of openings*; and
 - at least one vent positioned in one of the plurality of openings of the plurality of bosses,
 - wherein the cylinder body and the non-pressure head are secured to each other at the respective annular flanges, and
 - wherein the plurality of openings comprises at least first and second openings, the first opening oriented in a generally bottom position on the cylinder body with respect to a ground surface when the mounting portion has the first mounting orientation, the second opening oriented in a generally bottom position on the cylinder body with respect to a ground surface when the*

mounting portion has the second mounting orientation.

DISCUSSION

In the limitations shown with emphasis above, claim 6 sets forth, *inter alia*, requirements for both the number and the spacing of the recited “openings” about the “annular flange of the non-pressure head.” As to the required number of “openings,” the Examiner finds that Hewitt discloses a “first opening” but “lacks the [recited] plurality of openings.” Ans. 3. The Examiner determined, however, that it would have been obvious to modify Hewitt “to have [a] plurality of openings . . . [because it] would not [have] significantly changed the function of the brake cylinder and [would have] provide[d] quick release of air from the cylinder so [as] to achieve quick braking action.” *Id.* at 4.

As to the spacing of the “openings” about the flange, the Examiner states that:

Hewitt clearly show[s] in Figure 2, that non-pressure head 3 is attached to the cylinder with equally spaced mounting bolt[s] 30, so that mounting portion (12, 17) can rotate either clock wise or counter clock wise by 90 degree and non-pressure head also can be rearrange[d] to get the drain to [the] bottom portion due to their equal space mounting attachment to the cylinder. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to assemble the non-pressure head to cylinder for due to desire [sic] mounting arrangement involves only routine skill in the art.

Ans. 2–3.

Responding to the Examiner’s statements regarding the spacing of the “openings,” Appellants argue that “this feature of the Hewitt patent fails to teach or suggest first and second openings and the position of the openings

with respect to first and second mounting orientations as recited in independent claims 6 and 19.” Reply Br. 3; *see also id.* at 2 (“[T]he arrangement of Hewitt not only lacks the plurality of openings, but also the claimed positioning of the plurality of openings relative to the claimed mounting orientations. Merely modifying the device of Hewitt to include a plurality of openings fails to teach or suggest all of the limitations of independent claims 6 and 19.”).

Rejections based on obviousness must be supported by “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006), *cited with approval in KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007). Assuming, *arguendo*, that it would have been obvious to have modified Hewitt in view of Farmer to include a “plurality of openings,” the Examiner has not provided adequate articulated reasoning to have spaced the “plurality of openings” as recited in each of the limitations at issue in claim 6. Specifically, with the statement provided (Ans. 2–3), the Examiner determines that one of ordinary skill in the art at the time of the invention *could have* modified Hewitt to rotate non-pressure head 3 relative to pressure head 2, but does not provide reasoning why it would have been obvious to have spaced the “plurality of openings”—assumed, again, *arguendo*—such that the modified device would satisfy the last clause of claim 6.² In addition, the Examiner does not provide reasoning as to why it

² To the extent the Examiner identifies the “equally spaced mounting bolt[s] 30” in Hewitt (Ans. 2) as the recited “openings,” we note that claim 6 requires “at least one vent positioned in one of the plurality of openings” (Appeal Br. 17 (Claims App.)).

would have been obvious to have situated the “plurality of openings” so as to be “equally spaced relative to each other,” as also recited in the limitations at issue. For these reasons, we do not sustain the rejection of claim 6, or the rejection of claims 7 and 9–13, which depend from claim 6.

For claim 15 (and claims 16 and 18, which depend from claim 15) and for claim 19 (and claims 20–24, which depend from claim 19), the Examiner relies on the same deficient findings and conclusions discussed above with regard to claim 6. *See* Ans. 6 (“Claims 15 and 19 disclose [all the] features recited in claim 6 and . . . therefore [the] rejection[s] over Hewitt and further in view of Farmer are proper for the reason[s] set forth above and maintained [in] the rejection.”); Final Act. 7–9. Thus, we also do not sustain the rejection of claims 15, 16, and 18–24.

DECISION

We REVERSE the decision to reject claims 6, 7, 9–13, 15, 16, and 18–24 under 35 U.S.C. § 103(a).

REVERSED