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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte PANAGIOTIS FOTIADIS,
JOCHEN HÄRLEN, and HARALD JOKSCH

Appeal 2016-004674
Application 13/132,610
Technology Center 3700

Before STEFAN STAICOVICI, RICHARD H. MARSCHALL, and
ARTHUR M. PESLAK, *Administrative Patent Judges*.

STAICOVICI, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Panagiotis Fotiadis et al. (“Appellants”) ¹ appeal under 35 U.S.C. § 134(a) from the Examiner’s decision in the Final Action (dated May 21, 2015, hereinafter “Final Act.”) rejecting claims 12–21, 23–27, and 32–36.² We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

¹ BSH HAUSGERÄTE GMBH is identified as the real party in interest in Appellants’ Appeal Brief (filed Feb. Oct. 9, 2015, hereinafter “Appeal Br.”). Appeal Br. 3.

² Claims 1–11, 22, and 28–31 are canceled. Appeal Br. 16–18 (Claims App.).

SUMMARY OF DECISION

We REVERSE.

INVENTION

Appellants' invention relates to a refrigerator and a method for controlling the temperature in the refrigerator. Spec. para. 1.

Claims 12 and 27 are independent. Claim 12, shown below, is illustrative of the claimed invention and reads as follows:

12. A refrigerator, comprising:
 - a utility chamber for cooled goods;
 - a cold air channel to direct a cold air flow into the utility chamber, the cold air channel being separated from the utility chamber by a channel wall;
 - a control device configured to generate a cooling signal which is received by a cooling device to cause introduction of the cold air flow into the utility chamber as long as the cooling signal is being received by the cooling device;
 - a defrost heating element rendered operative by the cooling signal generated by the control device to prevent formation of condensate and/or ice when the cold air flow is fed into the utility chamber, the defrost heating element being disposed on the channel wall to prevent formation of condensate and/or ice on at least the channel wall ; and
 - a timing element configured to receive the cooling signal and, after a predetermined time interval, forward the cooling signal to the defrost heating element to delay operation of the defrost heating element in response to generation of the cooling signal.

REJECTIONS

I. The Examiner rejected claims 12–16, 23–27, 32, 33, and 36 under 35 U.S.C. § 103(a) as being unpatentable over Shim (US 5,542,258, iss. Aug. 6, 1996), Dempou et al. (US 4,569,205, iss. Feb. 11, 1986, hereinafter “Dempou”), and Oike (US 4,852,361, iss. Aug. 1, 1989).

II. The Examiner rejected claims 17, 18, 21, and 34 under 35 U.S.C. § 103(a) as being unpatentable over Shim, Dempou, Oike, and Moorman et al. (US 3,138,006, iss. June 23, 1964, hereinafter “Moorman”).

III. The Examiner rejected claims 19, 20, and 35 under 35 U.S.C. § 103(a) as being unpatentable over Shim, Dempou, Oike, and Park (US 6,058,724, iss. May 9, 2000).

ANALYSIS

Rejection I

The Examiner finds that Shim fails to disclose a “timing element,” as called for by each of independent claims 12 and 27. *See* Final Act. 2–3. Nonetheless, the Examiner finds that Dempou discloses

[an] electric refrigerator with defrost ability . . . having a timer . . . 156 . . . configured to receive a cooling signal . . . and after a predetermined time interval, [to] forward the cooling signal . . . to the defrost heating element . . . 80 . . . to delay operation of the defrost heating element in response to generation of the cooling signal.

Id. at 4 (citing Dempou, col. 1, ll. 7–12, col. 8, ll. 52–68, col. 8, l. 52–col. 9, l. 35, Fig. 4B). The Examiner concludes that it would have been obvious for a person of ordinary skill in the art “to modify the assembly of Shim to have a timing element,” as taught by Dempou, “in order to provide a freezing

chamber that can be efficiently defrosted while minimizing the adverse thermal effect of a defrosting heater on stored frozen foodstuff.” *Id.*; *see also* Dempou, col. 1, ll. 45–52.

Appellants argue that because Shim discloses the use of “prevention” heaters that are activated when the compressor is turned ON, whereas Dempou requires a timer to sequentially run the compressor for a “pre-frost” cool down, and the defrost heater, sequentially, “there is simply no need in Shim for the timer of Dempou.” Appeal Br. 10–11. According to Appellants, the problem of “adverse thermal effects” is not present in Shim because “the dew ‘prevention’ heaters are operated while the compressor is ‘on’ and able to keep items cool as the heaters run,” whereas in Dempou, “the heater . . . melts ice-buildup on the evaporator itself while the evaporator is not running.” *Id.* at 12. Hence, Appellants contend that “[t]he skilled artisan would not look to Dempou to modify Shim.” Reply Brief 5 (dated Apr. 4, 2016, hereinafter “Reply Br.”).

The Examiner responds that because “Shim teaches a system having a heater Hr that is intermittently operated when the compressor is off,” a person of ordinary skill in the art “would recognize a desire to control the timing of the intermittent operation,” and, thus, the same skilled artisan “would have understood to modify Shim to have the . . . timer of Dempou.” Examiner’s Answer 12 (dated Feb. 2, 2016, hereinafter “Ans.”) (citing Shim, col. 4, ll. 25–28).

The reasoning provided by the Examiner to modify the refrigeration system and control process of Shim with the timer of Dempou, namely, (1) to “minimiz[e] the adverse thermal effect of a defrosting heater on stored

frozen foodstuff” (*see* Final Act. 4) and (2) “to control the timing of the intermittent operation” (*see* Ans. 12), does not support the conclusion of obviousness because the Examiner has not shown the relevance of such rationale in the context of the refrigeration system and control method of Shim.

With respect to the Examiner first rationale,³ we note that Shim already discloses a control method that minimizes the adverse effects of a defrosting heater on stored frozen food. Specifically, in Shim’s control method, when the temperature in the freezer is at or above 0 °C, the freezer dew prevention freezer heater H_F is always turned OFF. *See* Shim, col. 4, ll. 20–23. However, if the temperature is below 0 °C, heater H_F is turned ON only when the compressor is turned ON. *Id.* at col. 4, ll. 23–25, Fig. 6A. Shim also discloses that if the compressor is turned OFF, heater H_F cycles ON and OFF intermittently at a frequency that depends on the temperature outside of the refrigerator. *Id.* at col. 4, ll. 25–28, Fig. 6B. As to the Examiner’s second rationale, Shim already discloses the use of a timer to run intermittently dew prevention freezer heater H_F. *Id.* at col. 5, ll. 47–67.

It is well settled that an artisan must be presumed to know something about the art apart from what the references disclose. *In re Jacoby*, 309 F.2d 513, 516 (CCPA 1962). In this case, a person of ordinary skill in the art would readily recognize that when the indoor temperature of Shim’s freezer is above a predetermined temperature, i.e., 0 °C, dew prevention freezer heater H_F is not activated in order to prevent the loss of refrigerating ability,

³ We refer only to Shim’s freezer dew prevention heater H_F because the Examiner’s reasoning is based on “frozen foodstuff.”

and, thus, prevent adverse effects on the frozen food. *See also* Shim, col. 2, ll. 53–58, col. 5, ll. 11–15. Similarly, the skilled artisan recognizes that although dew prevention freezer heater H_F is turned ON, because the compressor is also turned ON, the refrigerating ability is likewise not affected and no adverse effects on the frozen food results. Finally, even if the compressor is turned OFF and dew prevention freezer heater H_F cycles ON and OFF intermittently, the skilled artisan would further appreciate that the refrigerating ability of Shim's freezer is not affected such that adverse effects on the frozen food results. That is because the cycling of dew prevention freezer heater H_F is controlled by a timer based on the outside temperature and, furthermore, heater H_F cycles only as long as the temperature in the freezer is below 0 °C. *See also* Shim, Fig. 6(B).

In conclusion, we find the Examiner's rejection insufficient to explain what in the prior art would have prompted a person having ordinary skill in the art to modify the refrigeration system and control process of Shim with the timer of Dempou. The Examiner has not provided any findings that Shim recognized a problem with either its timer for controlling dew prevention freezer heater H_F intermittently or with deterioration of stored frozen food when using heater H_F as a defroster. As such, absent hindsight, we fail to see why a person having ordinary skill in the art would have modified the refrigeration system and control scheme of Shim with the timer of Dempou in the manner claimed. *See In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006).

The Examiner's use of the Oike disclosure does not remedy the deficiency of the Examiner's combination of Shim and Dempou. *See* Final Act. 3–4.

Accordingly, for the foregoing reasons we do not sustain the rejection under 35 U.S.C. § 103(a) claims 12–16, 23–27, 32, 33, and 36 as unpatentable over Shim, Dempou, and Oike.

Rejections II and III

The Examiner's use of the Moorman and Park disclosures does not remedy the deficiency of the Examiner's combination of Shim, Dempou, and Oike. *See* Final Act. 7–10.

Accordingly, for the same reasons as discussed above, we likewise do not sustain the rejections under 35 U.S.C. § 103(a) of claims 17, 18, 21, and 34 as unpatentable over Shim, Dempou, Oike, and Moorman and of claims 19, 20, and 35 as unpatentable over Shim, Dempou, Oike, and Park.

SUMMARY

The Examiner decision to reject claims 12–21, 23–27, and 32–36 under 35 U.S.C. §103 is reversed.

REVERSED