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Cantor Colburn LLP - Carrier 20 Church Street, 22nd Floor Hartford, CT 06103			ZERPHEY, CHRISTOPHER R	
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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* SWEE M. NG, MARTIN O. JOHNSON, and  
RAYMOND L. SENF JR.

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Appeal 2015-002928<sup>1,2</sup>  
Application 13/501,552  
Technology Center 3700

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Before BIBHU R. MOHANTY, PHILIP J. HOFFMANN, and  
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

HOFFMANN, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the rejection of claims 1 and 3–22. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

According to Appellants, “th[e] invention relates to controlling the dehumidification of air or an air-gas mixture being conditioned for supply to

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<sup>1</sup> Our decision references Appellants’ Specification (“Spec.,” filed Apr. 12, 2012) and Appeal Brief (“Br.,” filed Oct. 8, 2014), as well as the Examiner’s Answer (“Answer,” mailed Nov. 4, 2014).

<sup>2</sup> Appellants indicate that Carrier Corporation is the real party in interest. Br. 1.

a climate controlled space.” Spec. ¶ 2. Claims 1, 12, and 21 are the only independent claims. *See* Br., Claims App. We reproduce claim 1, below, as representative of the appealed claims.

1. A method for controlling dehumidification of an airflow to be conditioned for supply to a climate controlled space, said method comprising:

operating a refrigerant vapor compression system to circulate a refrigerant from a compressor, to a condenser, to an expansion device, to an evaporator, and back to the compressor;

passing the airflow to be conditioned over a plurality of refrigerant conveying conduits of the evaporator of the refrigerant vapor compression system thereby cooling the airflow;

operating the refrigeration vapor compression system to maintain the airflow at a set point air temperature indicative of a desired temperature within the climate controlled space; and

adjusting an evaporator expansion device upstream of the evaporator so as to reduce the temperature of the refrigerant within the refrigerant conveying conduits of the evaporator whenever further dehumidification of the air flow to be conditioned is desired;

wherein operating the refrigerant vapor compression system to maintain said airflow at a set point air temperature indicative of a desired temperature within the climate controlled space includes reheating said airflow having passed over the plurality of refrigerant conveying conduits of the evaporator at an air reheater separate from the condenser prior to supplying said airflow to the climate controlled space.

*Id.*

## REJECTIONS AND PRIOR ART

The Examiner rejects claims 1 and 3–11 under 35 U.S.C. § 112, second paragraph, as indefinite.<sup>3</sup>

The Examiner rejects claims 1, 3–9, 11–19, 21, and 22 under 35 U.S.C. § 103(a) as unpatentable over Yakumaru (US 2005/0217133 A1, pub. Oct. 6, 2005) and West (US 6,427,454 B1, iss. Aug. 6, 2002).

The Examiner rejects claim 10 under 35 U.S.C. § 103(a) as unpatentable over Yakumaru, West, and Shawhan (US 2,282,385, iss. May 12, 1942).

The Examiner rejects claim 20 under 35 U.S.C. § 103(a) as unpatentable over Yakumaru, West, and Nussbaum (US 3,434,299, iss. Mar. 25, 1969).

*See Answer 2–14.*

## ANALYSIS

### Indefiniteness rejection

Inasmuch as Appellants do not argue against the Examiner’s rejection of claims 1 and 3–11 as indefinite, we summarily sustain the rejection. *See Br. 4, n. 1; see also Answer 2.*

### Obviousness rejections

With respect to independent claim 1, Appellants argue “[t]h[e] rejection should be reversed as the Examiner has erred in combining

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<sup>3</sup> Although the Examiner appears to indicate that the claims are rejected under 35 U.S.C. § 112(b), this case is governed by the statutory provisions in effect before the Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011), because Appellants filed the application before September 16, 2012.

Yakumaru and West, as Yakumaru teaches against the proposed modification.” Br. 4; *see also id.* at 4–6. Based on our review of the record, including Yakumaru’s paragraph 2, we do not agree with Appellants that Yakumaru teaches away from using West’s heating coil 11 with Yakumaru’s arrangement that already includes radiator 2 to heat air. *See* Br. 5; *see also* Yakumaru ¶ 2.

A reference teaches away from a modification when the reference, taken as a whole, “criticiz[es], discredit[s], or otherwise discourage[s]” the modification. *In re Fulton*, 391 F.3d 1195, 1201 (Fed. Cir. 2004). In this case, we conclude that when taken as a whole, Yakumaru does not sufficiently criticize, discredit, or discourage the use of a heating coil (as disclosed in West) from being used with its arrangement that includes the radiator. For example, we find that Yakumaru’s paragraph 2 discusses, only very briefly, disadvantages that are associated with arrangements that utilize only an electric heater without any of the heat pump components described in Yakumaru. *See* Yakumaru ¶ 2. Such disclosure is insufficient to establish that Yakumaru teaches away from the proposed modification. Conversely, we agree with the Examiner that “[b]y providing the heater of West, . . . the system of Yakumaru [would be] able to provide dry air at a higher temperature to the conditioned space/drying chamber and[,] thus[,] the performance of the system [would be] increased.” Answer 18. Therefore, based on the foregoing, we sustain the obviousness rejection of claim 1.

Although independent claims 12 and 21 are argued separately, Appellants’ arguments are substantively the same as those discussed above for claim 1. *See* Br. 6–10. Further, Appellants argue that the rejections of

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remaining claims 3–11, 13–20, and 22 are in error because the claims depend from independent claims whose rejection is in error. *See id.* at 6, 8, 10–11. Thus, inasmuch as we do not find error in the rejection of claim 1, we also do not find error in any of, and, therefore, we sustain each of, the rejections of claims 3–22.

#### DECISION

We summarily AFFIRM the Examiner’s indefiniteness rejection of claims 1 and 3–11

We AFFIRM the Examiner’s obviousness rejections of claims 1 and 3–22.

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