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EXAMINER
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PASCUAL PEGUERO, NATALI

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* RAJ B. APTE, ERIK JOHN HASENOEHRL, and  
CHRISTOPHER PAULSON

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Appeal 2016-004068  
Application 13/551,539  
Technology Center 2400

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Before ALLEN R. MacDONALD, KARA L. SZPONDOWSKI, and  
PHILLIP A. BENNETT, *Administrative Patent Judges*.

MacDONALD, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF CASE

*Introduction*

Appellants appeal under 35 U.S.C. § 134(a) from a rejection of claims 1, 3, 4, and 6–22. We have jurisdiction under 35 U.S.C. § 6(b).

*Exemplary Claims*

Exemplary claims 1, 11, and 12 under appeal read as follows (emphasis and bracketing added):

1. A consumer product mesh network device, comprising:  
[(A)] ***a consumer product that does not have any networking communications capability***; and  
[(B)] a consumer product node associated with the consumer product,  
[(i)] the consumer product node having a communications element,  
[(ii)] the consumer product and the consumer product node together forming the consumer product mesh network device,  
[(iii)] wherein the communication element comprises both  
[(a)] a room-limited communication module and  
[(b)] a room-transparent communication module and  
[(iv)] wherein the consumer product mesh network device is capable of forming part of an ad hoc mesh network when the consumer product mesh network device is placed in [an] active mesh network.
11. The device of claim 1, wherein the consumer product is a ***non-powered implement***.
12. The device of claim 11, wherein the non-powered implement comprises one of ***an air freshener dispenser***, a toothbrush, a cleaning tool, and a razor.

*Rejection on Appeal*

1. The Examiner rejected claims 1, 3, 4, 6, 7, 9, 10, 18, and 19, as being unpatentable under 35 U.S.C. § 103(a) over the combination of Hufton et al. (US 2008/0246599 A1, Oct. 9, 2008) (“Hufton”) and Pelland et al. (US 2011/0291840 A1, Dec. 1, 2011) (“Pelland”).<sup>1</sup>

2. The Examiner rejected claim 8 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Hufton, Pelland, and Birger (US 2009/0265488 A1, Oct. 22, 2009).<sup>2</sup>

3. The Examiner rejected claims 11–15 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Hufton, Pelland, and Olson et al. (US 7,772,986 B2, Aug. 10, 2010) (“Olson”).<sup>3</sup>

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<sup>1</sup> Claims 1, 3, 4, 6, 7, 9, 10, 18, and 19 are grouped together. Although Appellants discuss claims 3 and 4 (App. Br. 3) we do not select either as representative of this group. Rather, we select claim 1 as representative. Further as to claims 3 and 4, the discussion thereof does not comply as separately argued as required by 37 C.F.R. § 41.37(c)(1)(iv) (“Under each heading identifying the ground of rejection being contested, any claim(s) argued separately or as a subgroup **shall be argued under a separate subheading** that identifies the claim(s) by number.” (emphasis added)). Except for our ultimate decision, claims 3, 4, 6, 7, 9, 10, 18, and 19 are not discussed further herein.

<sup>2</sup> As to this rejection, claim 8 is argued only by repeating the argument for claim 1. Therefore, our decision as to the underlying § 103 rejection of claim 1 is determinative. Therefore, except for our ultimate decision, the Examiner’s rejection of this claim is not discussed further herein.

<sup>3</sup> As to this rejection, claims 11–15 are argued only by repeating the argument for claim 1. Therefore, our decision as to the underlying § 103 rejection of claim 1 is determinative. Therefore, except for our ultimate decision, the Examiner’s rejection of this claim is not discussed further herein.

4. The Examiner rejected claim 16 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Hufton, Pelland, Olson, and Paniagua et al. (US 2008/0222431 A1, Sept. 11, 2008) (“Paniagua”).<sup>4</sup>

5. The Examiner rejected claims 17 and 20–22 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Hufton, Pelland, and Paniagua.<sup>5</sup>

*Appellants’ Contention*

1. Appellants contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because:

[T]he *Hufton* reference relates smart sensors in combination with dispensing devices. The sensors are described as being capable of receiving either infrared or radio frequency signals from transmitters. The sensors are not described as being able to receive both types of signals and are not described as being able to transmit signals at all.

App. Br. 3.

2. Appellants also contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because:

A description [in Hufton] that the device may be connected to a computer via a wire for the purpose of downloading data does

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<sup>4</sup> As to this rejection, claim 16 is not argued. Therefore, our decision as to the underlying § 103 rejection of claim 1 is determinative. Therefore, except for our ultimate decision, the Examiner’s rejection of this claim is not discussed further herein.

<sup>5</sup> As to this rejection, claims 17 and 20–22 are argued only by repeating the argument for claim 1. Therefore, our decision as to the underlying § 103 rejection of claim 1 is determinative. Therefore, except for our ultimate decision, the Examiner’s rejection of this claim is not discussed further herein.

not teach or suggest a device comprising part of a mesh network of devices.

App. Br. 3.

3. Appellants also contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because:

The *Pelland* reference also fails to teach or suggest network node devices comprising multiple communication modules.

App. Br. 3.

4. Appellants also contend that the Examiner erred in rejecting claim 1 under 35 U.S.C. § 103(a) because:

Paragraph 35 of the [Pelland] reference, cited for a teaching of line of sight communications, relates instead to means for locating a Health Care Worker and not network communications means.

App. Br. 3.

### *Issue on Appeal*

Did the Examiner err in rejecting claim 1 as being obvious because the cited references fail to describe the argued limitations?

### ANALYSIS

As to the Appellants' above contention 1, we agree in part. We disagree that in Hufton "[t]he sensors are not described as being able to receive both types of signals." App. Br. 3. Hufton at paragraph 117 discloses (emphasis added):

The wireless signal can be, for example, *one or more* of a radio frequency signal, an ultrasonic signal, a visible spectrum radiation signal or, as in this particular case, an infrared signal using the infrared detector 18.

We conclude an artisan would understand “one or more” as teaching both types of signals. However, we agree with Appellants that in Hufton “[t]he sensors . . . are not described as being able to transmit signals.” *Id.*

Although the Examiner at pages 3–4 of the Answer supplements the Final Action analysis by referencing transmitter 32, transmitter 32 is not part of the wearable smart disinfectant dispenser assembly 10 (Fig 1A) which is identified as the communication element. Rather, the transmitter 32 is part of fixed disinfectant dispenser assembly 31 (Fig. 2A) and transmits to sensor 18, which is part of the wearable smart disinfectant dispenser assembly 10. Our review does not find where sensor 18 transmits data. Rather, in Figure 2A the data received by sensor 18 passes to controller 20, then to USB interface 34, and then to the central computer 36. Therefore, we agree with Appellants that as to claim 1 (and the claims that depend therefrom), “the cited combination of references fails to teach or suggest each of the limitations set forth in the claims.” App. Br. 2.

As to the Appellants’ above contention 2, we agree in part. The Examiner explicitly states “Hufton teaches a consumer product *mesh* network device” (Final Act. 2, emphasis added). We agree with Appellants that Hufton does not. However, a full reading of the rejection shows that the Examiner goes on to acknowledge that the mesh aspect of the network is lacking in Hufton (Final Act. 3:10–14). The Examiner then turns to Pelland to show the wireless mesh network aspect. Appellants do not dispute that Pelland (*see* Abstract) describes a wireless mesh network. Therefore, although we agree with Appellants that Hufton does not teach or suggest a device comprising part of a *mesh* network of devices, we disagree that the Examiner has erred as to finding that the prior art teaching a consumer

product and the consumer product node together forming a consumer product mesh network device.

As to the Appellants' above contention 3, we disagree. Appellants argue that Pelland does not teach or suggest "network node devices comprising multiple communication modules." App. Br. 3. However, the Examiner did not cite Pelland for the "multiple communication modules" limitation. Rather, the Examiner relied on Hufton to teach the "multiple communication modules" limitation.

[W]herein the communication element comprises both a room-limited communication module (**an infrared signal using the infrared detector; Page 5, Paragraph 0117**) and a room transparent communication module (**the wireless signal can be, for example a radio frequency signal; Page 5, Paragraph 0117**).

Final Act. 3.

We conclude that Appellants' argument does not address the actual reasoning of the Examiner's rejections. Instead, Appellants attack the references singly for lacking teachings that the Examiner relied on a combination of references to show. It is well established that one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). Our reviewing court requires that references must be read, not in isolation, but for what they fairly teach in combination with the prior art as a whole. *Merck*, 800 F.2d at 1097.

As to the Appellants' above contention 4, we disagree. Although Appellants are correct that Pelland at paragraph 35 states it is determining the location of a Health Care Worker, an artisan reading the full Pelland

disclosure would understand that Pelland is in fact determining the location of a badge (network communications means) on the Health Care Worker.

#### NEW GROUNDS OF REJECTION

We reject claims 1, 11, and 12 herein as obvious under 35 U.S.C. § 103(a) based on new references. We leave it to the Examiner to review the patentability of claims 3, 4, 6–10, and 13–22 over these new references and previously applied references.

We reject claim 1 as being unpatentable under 35 U.S.C. § 103(a) over the combination of Hazani et al. (US 2008/0231111 A1, Sept. 25, 2008) (“Hazani”) and Smith et al. (US 7,324,824 B2, Jan. 29, 2008) (“Smith ’824”).<sup>6</sup>

We also reject claims 11 and 12 under 35 U.S.C. § 103(a) over Hazani, Smith ’824, and He et al. (US 6,957,012 B2, Oct. 18, 2005) (“He”).

As to claim 1, in the art of outlet add-on modules, Hazani discloses a consumer product network device (Figure 32b, module 323; at paragraph 224 the plug-in module is for data networking over in-house wiring (§ 151)), comprising:

- [(A)] a consumer product (Figure 32b, night light (house 324 and lamp 325)) that does not have any networking communications capability; and
- [(B)] a consumer product node (three data connections 34a, 34b and 34c) associated with the consumer product.

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<sup>6</sup> Smith ’824 incorporates by reference Smith et al. (US 7,312,752 B2, Dec. 25, 2007) (“Smith ’752”).

Hazani further discloses the consumer product node may comprise:

- [(B)(i)] the consumer product node having a communications element (Figure 20, interface module 250 with connector 258),
- [(B)(ii)] the consumer product and the consumer product node together forming the consumer product network device (see paragraph 224),

Hazani further discloses the communication element may comprise:

- [(B)(iii)] wherein the communication element comprises both (at paragraph 175 there may be a mix of multiple interface types)
  - [(a)] a room-limited communication module (infrared non-wired interface at paragraph 174) and
  - [(b)] a room-transparent communication module (radio frequency non-wired interface at paragraph 174).

In the art of outlet add-on modules, Smith '824 discloses a network device (Figure 5, network appliance 130), comprising:

- [(B)(iv)] wherein mesh network device is capable of forming part of an ad hoc mesh network when the consumer product mesh network device is placed in [an] active mesh network (at the Abstract the plug-in module is for forming a wireless mesh network; at column 5, lines 19–36, the network may be an ad hoc mesh network).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the known ad hoc wireless mesh data network of Smith for the known over in-house wiring data network of Hazani. “[W]hen a patent claims a structure already known in the prior art that is altered by the *mere substitution* of one element for another known in the field, the combination must do more than yield a predictable result.”

*KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 416 (2007)(emphasis added).

As to claims 11 and 12, Hazani further discloses that the functionality of any device which is commonly connected to an outlet may be integrated.

In the art of outlet add-on modules, He discloses a consumer product implement in the form of a non-powered air freshener dispenser. He discloses a dual outlet air freshener at column 2, lines 42–49. He discloses that the air freshener may be passive (non-powered) at column 5, lines 29–53, and column 6, lines 45–61.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the known non-powered air freshener dispenser device of He for the known night light device of Hazani.

*35 U.S.C. § 112, second paragraph*

We also reject claim 17 under 35 U.S.C. § 112, second paragraph, as being indefinite. Claim 17, which depends from claim 1, recites “the power connector” which lacks antecedent basis in claim 1. Rather, the power connector is first introduced in claim 15.

*37 C.F.R. § 41.50(b)*

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). 37 C.F.R. § 41.50(b) provides “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 C.F.R. § 41.50(b) also provides that Appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new grounds of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new Evidence relating to the claims so rejected, or both, and have the matter reconsidered

by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) Request rehearing. Request that the proceeding be reheard under § 41.52 by the Board upon the same Record. . . .

### CONCLUSIONS

(1) Appellants have established that the Examiner erred in rejecting claims 1, 3, 4, and 6–22 as being unpatentable under 35 U.S.C. § 103(a).

(2) We reject claims 1, 11, and 12 as being unpatentable under 35 U.S.C. § 103(a).

(3) We reject claim 17 under 35 U.S.C. § 112, second paragraph, as being indefinite.

(4) On this record, claims 3, 4, 6–10, 13–16, and 18–22 have not been shown to be unpatentable.<sup>7</sup>

(5) Claims 1, 11, 12, and 17 are not patentable.

### DECISION

The Examiner's rejections of claims 1, 3, 4, and 6–22 are reversed. Claims 1, 11, 12, and 17 are newly rejected.

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).

REVERSED  
37 C.F.R. § 41.50(b)

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<sup>7</sup> We leave it to the Examiner to review the patentability of claims 3, 4, 6–10, and 13–22 over the new references and previously applied references.