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Pillsbury Winthrop Shaw Pittman, LLP PO Box 10500 McLean, VA 22102			THAKER, NIDHI VIVEK	
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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* STEVEN WHITE and NICK VELANDER

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Appeal 2019-002493  
Application 15/165,590  
Technology Center 2800

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Before ADRIENE LEPIANE HANLON, ELIZABETH M. ROESEL, and  
JANE E. INGLESE, *Administrative Patent Judges*.

INGLESE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellant<sup>1</sup> requests our review under 35 U.S.C. § 134(a) of the Examiner’s decision to finally reject claims 1–13 and 15–25.<sup>2</sup> We have jurisdiction over this appeal under 35 U.S.C. § 6(b).

We REVERSE.

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<sup>1</sup> We use the word “Appellant” to refer to the “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies VAPOR IO INC. as the real party in interest. Appeal Brief filed August 24, 2018 (“Appeal Br.”) at 2.

<sup>2</sup> Final Office Action entered October 19, 2017 (“Final Act.”) at 1.

### CLAIMED SUBJECT MATTER

Appellant claims an adapter for rack-mounted computing equipment. Appeal Br. 2–3. Claim 1, the sole pending independent claim, illustrates the subject matter on appeal:

1. An adapter for rack-mounted computing equipment, the adapter comprising:
  - a chassis;
  - two mounts coupled to the chassis, each of the two mounts having a respective hole shaped to receive and support rack-mountable computing equipment, wherein centers of the holes are between 460 and 470 mm (millimeters) apart from one another in a side-to-side direction of the chassis;
    - two members extending from a front of the chassis*, the two members being less than 18 mm tall and being between 530 and 550 mm apart in the side-to-side direction;
  - a channel extending at least half a distance along the chassis in a front-to-back direction, the channel defining a volume configured to hold cables extending from a back side of the chassis to a front side of the chassis; and
  - a bus-bar connector mount configured to position a blind-mate bus-bar connector extending from a back of the chassis to mate with vertical or horizontal bus-bars in a back of a rack;
    - wherein the blind-mate bus-bar connector is configured to be secured to the bus-bar connector mount, and the blind-mate bus-bar connector is configured to provide a power connection to the rack-mounted computing equipment through the mating with the vertical or horizontal bus-bars.

Appeal Br. 19 (Claims Appendix) (emphasis added).

### REJECTIONS

The Examiner maintains the following rejections in the Examiner's Answer entered December 3, 2018 ("Ans."):

I. Claims 1–3, 6–10, 13, 17–20, and 25 under 35 U.S.C. § 103 as unpatentable over Mick<sup>3</sup> in view of Sweeney,<sup>4</sup> Zhang,<sup>5</sup> Obernesser,<sup>6</sup> and Yi;<sup>7</sup>

II. Claim 4 under 35 U.S.C. § 103 as unpatentable over Mick in view of Sweeney, Zhang, Obernesser, Yi, and Durney;<sup>8</sup>

III. Claim 5 under 35 U.S.C. § 103 as unpatentable over Mick in view of Sweeney, Zhang, Obernesser, Yi, Durney, and Meyer;<sup>9</sup>

IV. Claims 11 and 12 under 35 U.S.C. § 103 as unpatentable over Mick in view of Sweeney, Zhang, Obernesser, Yi, and Mojaver;<sup>10</sup>

V. Claims 15 and 16 under 35 U.S.C. § 103 as unpatentable over Mick in view of Sweeney, Zhang, Obernesser, Yi, and Pincu;<sup>11</sup>

VI. Claims 21–23 under 35 U.S.C. § 103 as unpatentable over Mick in view of Sweeney, Zhang, Obernesser, Yi, Durney, and Durney II;<sup>12</sup> and

VII. Claim 24 under 35 U.S.C. § 103 as unpatentable over Mick in view of Sweeney, Zhang, Obernesser, Yi, and Durney II.

## FACTUAL FINDINGS AND ANALYSIS

Upon consideration of the evidence relied upon in this appeal and each of Appellant’s contentions, we reverse the Examiner’s rejections of

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<sup>3</sup> US 2014/0268528 A1, published September 18, 2014.

<sup>4</sup> US 2012/0111817 A1, published May 10, 2012.

<sup>5</sup> US 2013/0107450 A1, published May 2, 2013.

<sup>6</sup> US 2015/0090679 A1, published April 2, 2015.

<sup>7</sup> US 2016/0329689 A1, published November 10, 2016.

<sup>8</sup> US 8,438,893 B2, issued May 14, 2013.

<sup>9</sup> US 697,305 B2, issued April 13, 2010.

<sup>10</sup> US 7,573,715 B2, issued August 11, 2009.

<sup>11</sup> US 2005/0201073 A1, published September 15, 2005.

<sup>12</sup> US 8,505,258 B2, issued August 13, 2013.

claims 1–13 and 15–25 under 35 U.S.C. § 103 for the reasons set forth in the Appeal and Reply Briefs and below.

Claim 1 requires the recited adapter for rack-mounted computing equipment to comprise, in part, a chassis and two members extending from a front of the chassis.

The Examiner finds that Mick discloses rack adapter 160 for network switch 108 (rack-mounted computing equipment) comprising shelf 162 (chassis) mounted in frame 102. Final Act. 2 (citing Mick Figs. 3 and 4); Ans. 3. The Examiner finds that “Mick is silent,” however, as to how shelf 162 (chassis) is secured or fixed in frame 102, and the Examiner relies on Zhang to address this asserted deficiency in Mick’s disclosures. Ans. 3–4. The Examiner finds that Zhang discloses server module 20 (chassis) mounted in rack 10 having vertical rails including mounting holes. Final Act. 4 (citing Zhang Figs. 1 and 2); Ans. 4. The Examiner finds that Zhang discloses that left and right thumbscrews 246 extend from the front of server module 20 (chassis) and screw into the mounting holes on the vertical rails of rack 10 to fixedly mount server module 20 (chassis) to rack 10. *Id.*

The Examiner concludes that it would have been obvious to one of ordinary skill in the art before the effective filing date of the present application to modify Mick’s shelf 162 (chassis) by providing left and right thumbscrews (two members) that extend from the front of shelf 162, to allow shelf 162 to be fixedly mounted onto frame 102 by screwing the two thumbscrews “into mounting holes provided on vertical rails of the rack [frame 102].” Final Act. 4.

On the record before us, however, the Examiner does not provide a sufficient factual basis to establish that the relied-upon disclosures in Mick

and Zhang would have suggested modifying Mick's shelf 162 (chassis) as proposed by the Examiner, for reasons expressed by Appellant and discussed below.

Mick discloses rack system 100 comprising rack frame 102 and rack adapter 160 including shelf 162 (chassis) on which network switch 108 is supported. Mick ¶¶ 14, 18; Figs. 2 and 3. Contrary to the Examiner's assertion that "Mick is silent" as to how shelf 162 (chassis) is secured or fixed in frame 102, Mick discloses that "rack adapter 160 is mounted within the frame using the brackets 154." Mick ¶ 18; Fig. 2. Figure 2 of Mick, which illustrates a front view of rack system 100, shows that brackets 154 are positioned underneath shelf 162 (chassis). And Figure 3 of Mick, which illustrates a top view of rack system 100, shows that brackets 154 do not extend outward beyond the front of shelf 162, because brackets 154 are not visible in the figure.

Zhang discloses a device including rack 10, server module 20 (chassis), and two sliding apparatuses 30. Zhang ¶ 13; Fig. 1. Zhang discloses that server module 20 (chassis) includes two opposite side surfaces 22 each fixed with mounting piece 24 at a front end that includes fixing portion 242 to which thumbscrew 246 is movably attached. Zhang ¶ 14; Fig. 2. Zhang discloses that rack 10 includes base 11 and two first posts 12 perpendicularly extending up from a front end of base 11. Zhang ¶ 15; Fig. 1. Zhang discloses that first posts 12 each include "flange 121 longitudinally defining a plurality of mounting holes 122." *Id.* Zhang describes mounting (securing) server module 20 (chassis) to rack 10 by sliding server module 20 (chassis) into rack 10 with sliding apparatuses 30,

and then screwing thumbscrews 246 on server module 20 into mounting holes 122 on rack 10. Zhang ¶¶ 21–23; Fig. 6.

Sliding apparatuses 30 in Zhang’s device thus allow server module 20 to slide into and out of rack 10, and mounting holes 122 on rack 10 engage thumbscrews 246 on server module 20 when server module 20 is slid into rack 10 to secure server module 20 in rack 10. In contrast, Mick’s rack system 100 does not include a mechanism that slides shelf 162 (chassis) into and out of rack frame 102; consequently, Mick’s system 100 does not include mounting holes on rack frame 102, or thumbscrews extending from the front of shelf 162 (chassis) that secure shelf 162 (chassis) onto rack frame 102. Instead, Mick’s system 100 utilizes brackets 154 positioned underneath shelf 162 (chassis) to mount rack adapter 160 within frame 102.

As discussed above, the Examiner determines that it would have been obvious to one of ordinary skill in the art to provide left and right thumbscrews (two members) extending from the front of Mick’s shelf 162 (chassis) to allow shelf 162 to be fixedly mounted onto frame 102 by screwing the two thumbscrews “into mounting holes provided on vertical rails of the rack [frame 102].” Final Act. 4. In making this determination, the Examiner implicitly finds that frame 102 disclosed in Mick includes mounting holes into which thumbscrews could be secured. We find no disclosure in Mick, however, that indicates or would have suggested that frame 102 includes mounting holes, and the Examiner does not identify any such disclosure in Mick.

Because Mick’s system is not designed as the Examiner implicitly asserts to include mounting holes on frame 102 into which thumbscrews could be received, the Examiner’s proposed modification to incorporate

thumbscrews extending from the front of shelf 162 would require further modification and redesign of Mick's system, including modification of frame 102 to allow incorporation of mounting holes and also modification or elimination of mounting brackets 154, which may be rendered superfluous or inoperable by changes necessary to implement the Examiner's proposed modifications. The Examiner does not provide sufficient reasoning with rational underpinning that explains why one of ordinary skill in the art would have undertaken such substantial reconstruction and redesign of Mick's system 100, as Appellant argues. Reply Br. 3–4; *In re Ratti*, 270 F.2d 810, 813, (CCPA 1959) (reversing an obviousness rejection because the “suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate.”); *KSR Int'l v. Teleflex, Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (“[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness”)).

At best, the Examiner shows that various components of the adapter recited in claim 1 were independently known in the prior art, but such a showing is insufficient to establish prima facie obviousness because “[a] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *KSR*, 550 U.S. at 418. Rather than providing reasoning supported by objective evidence as to why one of ordinary skill in the art would have

modified Mick’s system in the manner proposed, the Examiner’s rejection appears to be based on impermissible hindsight in which components of the prior art have been extracted to reconstruct the invention as claimed. *KSR*, 550 U.S. at 421 (“[F]actfinder should be aware . . . of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning.”).

The Examiner does not rely on the remaining prior art of record to cure the deficiency in the combination of Mick and Zhang identified above. We, accordingly, do not sustain the Examiner’s rejection of claim 1, and rejections of claims 2–13 and 15–25, which each depend from claim 1, under 35 U.S.C. § 103.

#### CONCLUSION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1–3, 6–10, 13, 17–20, 25	103	Mick, Sweeney, Zhang, Obernesser, Yi		1–3, 6–10, 13, 17–20, 25
4	103	Mick, Sweeney, Zhang, Obernesser, Yi, Durney		4
5	103	Mick, Sweeney, Zhang, Obernesser, Yi, Durney, Meyer		5
11, 12	103	Mick, Sweeney, Zhang, Obernesser, Yi, Mojaver		11, 12
15, 16	103	Mick, Sweeney, Zhang,		15, 16

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		Obernesser, Yi, Pincu		
21–23	103	Mick, Sweeney, Zhang, Obernesser, Yi, Durney, Durney II		21–23
24	103	Mick, Sweeney, Zhang, Obernesser, Yi, Durney II		24
<b>Overall Outcome</b>				1–13, 15–25

REVERSED