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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRIAN S. MERROW,
PETER MIGUEL MARTINO, and RHONDA LYNN ALLAIN

Appeal 2015-001085
Application 12/815,085
Technology Center 2600

Before JASON V. MORGAN, BRUCE R. WINSOR, and
JUSTIN BUSCH, *Administrative Patent Judges*.

WINSOR, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants[1] appeal under 35 U.S.C. § 134(a) from the non-final rejection of claims 1, 4–9, 12–15, and 17–19. We have jurisdiction under 35 U.S.C. § 6(b). Claims 2, 3, and 10 are cancelled. App. Br. 13, 14. Claims 11, 16, and 20–22 are withdrawn from consideration. Non-Final Act. 1.

We reverse and institute a new ground of rejection under the provisions of 37 C.F.R. § 41.50(b) (2013).

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[1] The real party in interest identified by Appellants is Teradyne, Inc. App. Br. 1.

STATEMENT OF THE CASE

Appellants' disclosed invention "relates to management of air-borne vibrations, and particularly, to the management of air-borne vibrations in storage device testing systems." Spec. 1:3–4. Claims 1 and 12, which are illustrative, read as follows:

1. A storage device testing system comprising:

a rack comprising at least one test slot comprising a test slot housing, the test slot housing configured to receive a storage device for testing, wherein the test slot housing is substantially exposed to air on at least one side; and

a vibration management material applied, at least indirectly, to the surface of a structural component of the system having a composition to absorb and/or diffuse air-borne vibration, wherein the vibration management material is disposed so as to attenuate air-borne vibration before the air-borne vibration is coupled to the test slot.

12. A storage device testing system comprising:

a rack comprising a test slot configured to receive a storage device for testing, wherein the test slot is substantially exposed to air on at least one side;

a source of a flow of air; and

a vibration management material disposed within the flow of air without completely blocking the flow, wherein the vibration management material has a composition to absorb and/or diffuse air-borne vibration before the air-borne vibration is coupled to the test slot.

Claims 1 and 4–7 stand rejected under 35 U.S.C. §§ 102(a) and 102(e) as being anticipated by Merrow et al. (US 2009/0153994 A1; published June 18, 2009) (herein, Merrow '994[2]).[3] *See* Non-Final Act. 3.

Claims 1, 8, 9, 12–15, and 17–19 stand rejected under 35 U.S.C. §§ 102(a) and 102(e) as being anticipated by Merrow (US 2009/0262455 A1; published Oct. 22, 2009) (herein, Merrow '455[4]). *See* Non-Final Act. 4–6.

Rather than repeat the arguments here, we refer to the Briefs ("App. Br." filed Apr. 30, 2014; "Reply Br." filed Oct. 16, 2014) and the Specification ("Spec." filed June 14, 2010) for the positions of Appellants and the Non-Final Office Action ("Non-Final Act." mailed Nov. 29, 2013) and Answer ("Ans." mailed Aug. 27, 2014) for the reasoning, findings, and conclusions of the Examiner.

ISSUES

The dispositive issues presented by Appellants' arguments are as follows:[5]

Whether the Examiner errs in finding the spring clamp dampeners disclosed by Morrow '994 comprise "a vibration management material . . .

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[2] Merrow '994 is also referred to as the "'994 publication" in the record. *See, e.g.*, Non-Final Act. 3.

[3] All rejections are under the provisions of 35 U.S.C. in effect prior to the effective date of the America Invents Act of 2011. Non-Final Act. 2.

[4] Merrow '455 is also referred to as the "'455 publication" in the record. *See, e.g.*, Non-Final Act. 4.

[5] Appellants' arguments present additional issues. Because the identified issues are dispositive of the appeal, we do not reach the additional issues.

disposed so as to attenuate air-borne vibration before the air-borne vibration is coupled to the test slot," as recited in claim 1.

Whether the Examiner errs in finding the blower vibration mounts disclosed by Morrow '455 comprise "a vibration management material . . . disposed so as to attenuate air-borne vibration before the air-borne vibration is coupled to the test slot," as recited in claim 1.

Whether the Examiner errs in finding the blower vibration mounts disclosed by Morrow '455 comprise "a vibration management material disposed within the flow of air . . . ha[ving] a composition to absorb and/or diffuse air-borne vibration before the air-borne vibration is coupled to the test slot," as recited in claim 12.

ANALYSIS

Claim Construction

Claim construction is an issue of law that we review *de novo*. *Cordis Corp. v. Boston Scientific Corp.*, 561 F.3d 1319, 1331 (Fed. Cir. 2009). During prosecution we give claims their broadest reasonable interpretation in light of the Specification, *In re Morris*, 127 F.3d 1048, 1054 (Fed. Cir. 1997), without importing limitations from the Specification into the claims, *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993). Appellants' Specification distinguishes between mechanically transmitted vibrations and vibrations transmitted through the air. *See* Spec. 1:21–23. The ordinary meaning of "air-borne vibrations" encompasses vibrations carried through the air, which, according to Appellants' Specification, "may be acoustic or fluid in nature," Spec. 1:24. Appellants' Specification also discloses that vibrations transmitted through the air maybe transmitted to a component

being tested through intermediate mechanical connections. Spec. 1:23–25. We conclude the broadest reasonable interpretation of air-borne vibrations is the ordinary meaning, i.e., vibrations carried through the air, but does not encompass vibrations transmitted mechanically.

Anticipation of Claim 1 by Merrow '994

The Examiner maps "a vibration management material . . . disposed so as to attenuate air-borne vibration before the air-borne vibration is coupled to the test slot," as recited in claim 1, to the engagement member 472 having a dampener 474 disclosed by Merrow '994. Non-Final Act. 3 (citing Merrow '994 ¶ 117, Fig. 10A). Examiner explains "[t]he dampener of Merrow '994 dampens the test slot itself thereby attenuating a vibration before or after coupling." Ans. 2.

Appellants contend the engagement member 472 and the dampener 474 are

> contained within spring clamps . . . . However, the spring clamps described are positioned within a disk drive transporter, which itself is placed within a test slot. And therefore, the dampers are not "disposed so as to attenuate air-borne vibration before the air-borne vibration is coupled to the test slot."

App. Br. 6; *see* Merrow '994 ¶¶ 126–27, Figs. 17B, 19A.

We agree with Appellants. Because the dampeners 474 disclosed by Merrow '994 are located within the test slot, any dampening of the effects of air-borne vibration coupled to the test slot will occur *after* the vibrations are coupled to the test slot, not before. We also note, for emphasis, that while the dampeners 474 disclosed by Merrow '994 may dampen the mechanical effects caused by air-borne vibrations coupled to the test slot, they are not of a composition or disposed to absorb, diffuse, or attenuate the air-borne vibration itself, as recited in the claim.

Regarding claim 1, the Examiner has not demonstrated that "each and every element as set forth in the claim is found [in Merrow '994], either expressly or inherently described," *Verdegaal Bros., Inc. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987), "in as complete detail as is contained in the . . . claim," *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236 (Fed. Cir. 1989), "arranged as in the claim," *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990). Accordingly, we do not sustain the rejection for anticipation by Merrow '994 of claim 1 or claims 4–7, which depend, directly or indirectly, from claim 1.

Anticipation of Claim 1 by Merrow '455

The Examiner maps "a vibration management material . . . disposed so as to attenuate air-borne vibration before the air-borne vibration is coupled to the test slot," as recited in claim 1, to the vibration mounts 37 that the blower 816 is mounted upon, as disclosed by Merrow '455. Non-Final Act. 4 (citing Merrow '455 ¶ 187, Fig. 11B). The Examiner explains that the blower 816 is a major source of air-borne vibrations and that the vibration "mounts [37] attenuate vibrations from the blower." Ans. 3.

Appellants contend as follows:

> While the vibrational mounts "isolate vibrations originating at the blower" there is nothing to suggest that they attenuate these (or any air-borne) vibrations. For example, the vibration mounts could be springs which allow for the movement of the blower but inhibit the transfer of vibrations from the blower to the test rack. Such a mount would not attenuate the airborne vibration, but instead may enable the air-borne vibration to be larger than it would have been had the blower been directly mounted to the rack. In so far as air-borne-vibrations are caused by the mechanical vibrations, air-borne vibrations occur when the mechanical vibration of the blower disturbs the surrounding air. In so far as the air-borne vibrations are caused by the

> blowing air, there is nothing to suggest that the vibration mounts would attenuate the air-borne vibrations.

App. Br. 10 (referring to Merrow '455 ¶ 187, Fig. 11B).

We agree with Appellants for the reasons stated by Appellants. We agree with the Examiner that one of ordinary skill in the art would understand the blower to be a major source of air-borne vibrations. *See* Ans. 3; *see also In re Preda*, 401 F.2d 825, 826 (CCPA 1968) (In establishing anticipation under 35 U.S.C. § 102(b), "it is proper to take into account not only specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom."). Further, the vibration mounts 37 disclosed by Merrow '455 "isolate vibrations originating at the blower 816 from the test rack 100, and . . . from disk drives being tested in the test rack 100." Merrow '455 ¶ 187. However, one of ordinary skill in the art would understand the vibrations so isolated are *mechanical* vibrations created by the blower and not *air-borne* vibrations in the air flow 815 created by blower 815, or any other air-borne vibrations. *See* Merrow '455 Fig. 11B; *see also Preda*, 401 F.2d at 826.

Regarding claim 1, the Examiner has not demonstrated that "each and every element as set forth in the claim is found [in Merrow '994], either expressly or inherently described," *Verdegaal*, 814 F.2d at 631, "in as complete detail as is contained in the . . . claim," *Richardson*, 868 F.2d at 1236, "arranged as in the claim," *Bond*, 910 F.2d at 832. Accordingly, we do not sustain the rejection for anticipation by Merrow '994 of claim 1 or claims 8 and 9, which depend, directly or indirectly, from claim 1.

Anticipation of Claim 12 by Merrow '455

Similar to the mapping for claim 1, the Examiner maps "a vibration management material disposed within the flow of air . . . ha[ving] a

composition to absorb and/or diffuse air-borne vibration before the air-borne vibration is coupled to the test slot," as recited in claim 12, to the vibration mounts 37 that the blower 816 is mounted upon, as disclosed by Merrow '455. Non-Final Act. 5 (citing Merrow '455 ¶ 187, Fig. 11B).

For the same reasons as for the rejection of claim 1 as anticipated by Merrow '455, we do not sustain the rejection as anticipated by Merrow '455 of claim 12 or claims 13–15 and 17–19, which depend, directly or indirectly, from claim 12.

NEW GROUND OF REJECTION WITHIN 37 C.F.R. § 41.50(b)

Claims 1 and 12 are rejected on a new ground of rejection under 35 U.S.C. § 102(a) as anticipated by Merrow '455.

Claim 1

We adopt as our own the Examiner's following findings:

> As per claim 1, . . . [Merrow '455] discloses a rack (Fig. 11B, 700) comprising at least one test slot (500) comprising a test slot housing, the test slot housing configured to receive a storage device for testing, wherein the test slot housing is substantially exposed to air on at least one side (protruding portion).

Non-Final Act. 4 (emphasis omitted).

Merrow '455 further discloses:

> a vibration management material applied, at least indirectly, to the surface of a structural component of the system having a composition to absorb and/or diffuse air-borne vibration, wherein the vibration management material is disposed so as to attenuate air-borne vibration before the air-borne vibration is coupled to the test slot,

as recited in claim 1. In particular Merrow '455 discloses a filter 46 (¶¶ 109, 188, Fig. 11B) applied to the inlet face 817 of the heat exchanger 810.

> If the prior art reference does not expressly set forth a particular element of the claim, that reference still may anticipate if that element is "inherent" in its disclosure. . . . "Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient."

In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999) (citations omitted). Inherency requires that "the allegedly inherent characteristic *necessarily* flows from the teachings of the applied prior art." *Ex parte Levy*, 17 USPQ2d 1461, 1464 (BPAI 1990). Although Merrow '455 discloses that the purpose of the filter 46 is to reduce dust within the racks 100 (¶ 188), one of ordinary skill in the art would recognize that the filter 46 will inherently, i.e., necessarily, absorb, diffuse, and attenuate air-borne vibration created by blower 816 in air flow 815. *See also Preda*, 401 F. 2d at 826. The action of the filter 46 in this regard is similar to the action of Appellants' diffuser 1020. *See* Spec. 11:30–12:1, Fig. 9. Furthermore, the attenuation of air-borne vibration in the air flow 815 occurs before it exits the rack 100 and, therefore, before it reaches the side of the test slot 500 that is exposed to the air, i.e., before it is coupled to the test slot 500 (Fig. 11B).

Claim 12

We adopt as our own the Examiner's following findings:

> As per claim 12, . . . [Merrow '455] discloses a rack comprising a test slot configured to receive a storage device for testing (Fig. 11B, 700), wherein the test slot is substantially exposed to air on at least one side (exposed side); [and] a source of a flow of air (¶ 187, II. 5-8 where blower [816] is the source).

Non-Final Act. 5 (emphasis omitted).

Merrow '455 further discloses "a vibration management material disposed within the flow of air without completely blocking the flow,

wherein the vibration management material has a composition to absorb and/or diffuse air-borne vibration before the air-borne vibration is coupled to the test slot," as recited in claim 12. In particular Merrow '455 discloses a filter 46 (¶¶ 109, 188, Fig. 11B) disposed within the flow of air 415 from the blower 816. One of skill in the art would understand that the filter 46 allows the air flow 415 to pass through it and, therefore, does not completely block the flow of air. Although Merrow '455 discloses that the purpose of the filter 46 is to reduce dust within the racks 100 (¶ 188), one of ordinary skill in the art would recognize that the filter 46 will inherently, i.e., necessarily, absorb, diffuse, and attenuate air-borne vibration created by the blower 816 in air flow 815. *See Robertson*, 169 F.3d at 745; *Levy*, 17 USPQ2d at 1464; *Preda*, 401 F.2d at 826. The action of the filter 46 in this regard is similar to the action of Appellants' diffuser 1020. *See* Spec. 11:30–12:1, Fig. 9. Furthermore, the attenuation of air-borne vibration in the air flow 815 occurs before it exits the rack 100 and, therefore, before it reaches the side of the test slot 500 that is exposed to the air, i.e., before it is coupled to the test slot 500 (Fig. 11B).

Dependent Claims

We have entered new grounds of rejection for independent claims 1 and 12. We leave to the Examiner to consider the patentability of dependent claims 4–9, 13–15, and 17–19 in light of our findings and conclusions *supra*, regarding the independent claims. *The fact that we did not enter new grounds of rejection for the dependent claims should not be construed to mean that we consider the dependent claims to be directed to patentable subject matter or to be patentable over the prior art of record.*

DECISION

The decision of the Examiner to reject claims 1, 4–9, 12–15, and 17–19 is reversed.

We enter a new ground of rejection for claims 1 and 12 under 35 U.S.C. § 102(b).

This Decision contains new grounds of rejection pursuant to 37 C.F.R. § 41.50(b). Section 41.50(b) provides that "[a] new ground of rejection . . . shall not be considered final for judicial review."

Section 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 ground 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.

37 C.F.R. § 41.50(b).

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). *See* 37 C.F.R. §§ 41.50(f), 41.52(b).

REVERSED
37 C.F.R. § 41.50(b)