

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HARVEY D. LOUCKS JR.

Appeal 2008-3737
Application 11/146,315
Technology Center 2800

Decided: September 18, 2008

Before CHARLES F. WARREN, ROMULO H. DELMENDO, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicant appeals to the Board from the decision of the Primary Examiner finally rejecting claims 21 through 54 in the Office Action mailed September 6, 2006 (“Office Action”). 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2006).

We affirm the decision of the Primary Examiner.

Claim 21 illustrates Appellant's invention of a multipole assembly, and is representative of the claims on appeal:

21. A multipole assembly comprising:
 - a) a plurality of insulators each having an outer surface and an inner surface, said inner surface defining a void;
 - b) a plurality of parallel rods, each of which:
 - i. extends through said void of said insulators and
 - ii. is spaced from said inner surface of said insulators; and
 - c) a cured adhesive material attaching each of said parallel rods to said inner surface of said insulators.

The Examiner relies upon the evidence in these references (Ans. 3):

Turner	US 3,725,700	Apr. 3, 1973
Broadbent	US 5,616,919	Apr. 1, 1997
Ooms	US 6,540,379 B2	Apr. 1, 2003

Appellant requests review of the following grounds of rejection advanced on appeal (App. Br. 6):

claims 21 through 54 under 35 U.S.C. § 102(b) as anticipated by Broadbent with evidence provided by Ooms (Ans. 3);¹ and

claims 23, 24, 35, 36, 45, and 46 under 35 U.S.C. § 103(a) as unpatentable over Broadbent in view of Turner (Ans. 5).

Appellant argues the claims in each ground of rejection as a group. App. Br. in entirety. Thus, we decide this appeal based on claims 21 and 23. 37 C.F.R. § 41.37(c)(1)(vii) (2006).

The principal issues in this appeal are whether the Examiner has

¹ Appellant includes all of the appealed claims with this ground of rejection. App. Br. 6. We find that the Examiner includes all of the appealed claims in the explanation of this ground of rejection even though not all of the appealed claims are included in the statement of the ground of rejection. Office Action 3-4; Ans. 3-5.

carried the burden of establishing a *prima facie* case in each of the grounds of rejection advanced on appeal which, of course, turn on the issues addressed below.

The plain language of independent claim 21 specifies any multipole assembly comprising at least a plurality of any manner of insulators and a plurality of any manner of parallel rods. Each rod extends through the insulators and is spaced apart from the inner surface of the insulators by any manner of cured adhesive that can attach the rods to the surface of the insulators. Dependent claim 23 specifies ceramic insulators.

We find Broadbent would have disclosed to one of ordinary skill in this art the structure illustrated in Figure 2E in which parallel tubes, that is, rods, 204a-d extend through and are “fused” to the inner surface of outer elongated insulator tubes 202 to form a multipole assembly. Broadbent col. 10, ll. 23-28.

Broadbent teaches the following with respect to the term “fused.” Broadbent illustrates in Figure 2A a side view of tubes 204a-d positioned inside outer elongated tube 202 “before the steps of fusing” the tubes 204 to tube 202. Broadbent col. 6, ll. 14-22. Broadbent teaches, via Figure 2B, that “prior to the fusing step” the tubes 204 “should be positioned *proximate*” to the inner surface of tube 202 so that “the base region” of tubes 204 “*contacts or nearly contacts* the internal surface of” tube 202. Broadbent col. 7, ll. 31-37 (emphasis supplied). Broadbent discloses that Figure 2B illustrates the positioning of tubes 204 within tube 202 using mandrels 206a-e which “should allow the inner tubes [204] to contact the internal surface of the

outer glass tube [202] and at the same time prevent contact” between the tubes 204. Broadbent col. 7, l. 65 to col. 8, l. 2.

Broadbent teaches that tubes 204 can be “fused” to the inner surface of tube 202 in several ways:

After the four inner tubes 204 are properly positioned inside of the outer glass tube 202, the four inner tubes 204 are fused to the internal surface 210 of the outer tube 202. Typically, fusing the inner tubes 204 to the outer tube 202 is performed by heating the properly positioned structure to the softening point of the inner tube material. . . . However, fusing of the inner tube to the outer tube may refer to *any manner which binds or couples* the inner tubes 204 to the outer tube 202 in a mechanically stable fashion. For example, *in an alternative embodiment the inner tubes 204 are fused to the outer tube 202 by a ceramic adhesive or fiber optic grade epoxy*. Alternatively, the inner tubes 204 may be screwed, or by other means fastened, onto the outer tube 202.

Broadbent col. 8, ll. 3-16 (emphasis supplied).

A discussion of Ooms and Turner is not necessary to our decision.

With respect to the ground of rejection under § 102(e), the Examiner submits Broadbent’s Figure 2E illustrates an embodiment in which each of a plurality of rods 204 extend through the void of each of a plurality of insulators 202 and are bonded to the insulators by an adhesive, thus describing an embodiment within claim 1. Ans. 3-4. With respect to the ground of rejection under § 103(a), the Examiner determines that one of ordinary skill in this art would have modified Broadbent’s embodiment by using Turner’s ceramic support 19. Ans. 5-6.

Appellant submits Broadbent does not anticipate the appealed claims because Broadbent’s “rods are *not spaced from* the inner surfaces of the

insulators, as required by the appealed claims.” App. Br. 7. Appellant contends:

According to col. 8, lines 3-16 of Broadbent’s disclosure, Broadbent’s assembly is manufactured by fusing four tubes . . . to the inner surface of an outer tube. While Broadbent does disclose that the four tubes may be fused to the outer tube using an adhesive[], Broadbent also states that the inner tubes should *contact* the inner surface of the outer tube prior to fusing these pieces together[]. Thus Broadbent’s assembly contains inner tubes that are *in contact with* the outer tube, rather than spaced from the outer tube, as required by the appealed claims.

App. Br. 7, citing Broadbent col. 7, ll. 65-67, and col. 8, ll. 13-15. Appellant illustrates his position by showing tubes directly contacting the insulator tube and held in this position by adhesive. App. Br. 8. With respect to the ground of rejection under § 103(a), Appellant contends that “Turner does not remedy Broadbent’s deficiencies.” App. Br. 9.

In response to Appellant’s arguments, the Examiner points out that Broadbent discloses tubes 204 “should be positioned proximate to the internal surface” of tube 202 so that “the base region” of the tubes 204 “contacts or nearly contacts” tube 202. Ans. 6 (original emphasis deleted), citing Broadbent col. 7, ll. 31-38. The Examiner also points out that Figure 2B illustrates tubes 204 do not directly touch tube 202, and thus, Broadbent teaches tubes 204 are spaced apart from tube 202. Ans. 7.

Appellants reply that “the Examiner argues the claimed device is in fact described in col. 7, lines 31-38 of Broadbent, and in Fig. 2B.” Reply Br. 2. Appellants point out Broadbent Figure 2B describes a device that contains a single insulator, and is a cross section of the device shown in

Broadbent Figure 2A which illustrates a device with a single insulator.

Reply Br. 2-5.

The Examiner must establish a *prima facie* case of anticipation under § 102(b) by showing, as a matter of fact, that a single reference describes to one skilled in this art each and every limitation of the claimed invention encompassed by the claim arranged as required therein, either explicitly or inherently. *See, e.g., In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997), and cases cited therein; *In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990), and cases cited therein. The Examiner must establish a *prima facie* case of obviousness under § 103(a) by showing that the teachings of the reference or references would have led one of ordinary skill in the art to the claimed invention encompassed by the claim. *See, e.g., In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992); *In re Piasecki*, 745 F.2d 1468, 1472 (Fed. Cir. 1984).

We are of the opinion the Examiner has established that, as a matter of fact, *prima facie*, Broadbent's embodiment illustrated in Figure 2E would have described to one skilled in this art a multipole assembly falling within claim 1, thus anticipating this claim under § 102(e). In this respect, we determine this person would have reasonably inferred from Broadbent's teachings with respect to binding or coupling tubes 204 to tubes 202 with adhesive to fuse them together where tubes 204 and tubes 202 do not have to be in contact when so fused, that in the Figure 2E embodiment, a layer of cured adhesive can separate tubes 204 from tubes 202 which are thus spaced apart thereby as claimed. *See, e.g., In re Preda*, 401 F.2d 825, 826 (CCPA 1968) ("[I]n considering the disclosure of a reference, 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.” (citation omitted)). Indeed, Broadbent specifically describes such alternative embodiments without picking and choosing between unrelated embodiments. *Cf. In re Arkley*, 455 F.2d 586, 587 (CCPA 1972) (“[F]or the instant rejection under 35 U.S.C. 102(e) to have been proper, the . . . reference must clearly and unequivocally disclose the claimed compound or direct those skilled in the art to the compound without *any* need for picking, choosing, and combining various disclosures not directly related to each other by the teachings of the cited reference.”).

Upon reconsideration of the record as a whole in light of Appellant’s contentions, we are of the opinion that Appellant has not successfully rebutted the prima facie case of anticipation. We disagree with Appellant’s contentions that Broadbent discloses only embodiments wherein tubes 204 and tubes 202 are in direct contact and secured in this arrangement by adhesive. This is because the reference specifically describes embodiments where the tubes are separated by adhesive when bound or coupled. Furthermore, the Examiner makes clear that it is Broadbent’s embodiment illustrated in Figure 2E which anticipates claim 1, and thus Appellant’s contentions with respect to Broadbent Figures 2A and 2B in the Reply Brief are without merit.

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of anticipation found in Broadbent with evidence supplied by Ooms with Appellant’s countervailing evidence of and argument for non-anticipation and conclude that the claimed

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invention encompassed by appealed claims would have been anticipated as a matter of fact under § 102(b).

Turning now to the ground of rejection under § 103(a), we determine the Examiner has established a prima facie case of obviousness, and upon reconsideration of the record determine that Appellant's contentions based on Broadbent's asserted deficiencies do not successfully rebut the prima facie case. Accordingly, we affirm this ground of rejection.

The Primary Examiner's decision is affirmed.

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).

AFFIRMED

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