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OHLANDT, GREELEY, RUGGIERO & PERLE, LLP ONE LANDMARK SQUARE, 10TH FLOOR STAMFORD, CT 06901			VAN SELL, NATHAN L	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte STEFAN MISCHKE, THOMAS WERNER,
and MARCO WEISENBURGER

Appeal 2019-000737
Application 14/314,428
Technology Center 1700

Before LINDA M. GAUDETTE, KAREN M. HASTINGS, and
JAMES C. HOUSEL, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ requests our review under 35 U.S.C. § 134(a) of the Examiner's decision rejecting claims 12, 15, 17, 18, and 20–25 under 35 U.S.C. § 103 as unpatentable over Westerhoff (US 2010/0182711 A1; published July 22, 2010); claims 13 and 26 over the combined prior art of Westerhoff and Bagby (US 4,911,743; issued March 27, 1990); and claims

¹ We use the word “Appellant” to refer to the “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies Schott AG. as the real party in interest (Appeal Br. 1).

27 and 28 over the combined prior art of Westerhoff and Jagdt (US 3,644,022; issued February 22, 1972).

We have jurisdiction over the appeal under 35 U.S.C. § 6(b).

We AFFIRM.

CLAIMED SUBJECT MATTER

Claim 12 is illustrative of the subject matter on appeal (emphasis added to highlight key disputed limitations):

12. A glass or glass ceramic element, comprising:
 - an open end at a surface;
 - a bottom; and
 - at least one ground-in recess that extends rectilinearly from the open end to the bottom, and wherein the at least one ground-in recess has a lateral wall surface with a minimum radius of at least 6 millimeters and a ratio of a depth of the ground-in recess to the minimum radius is greater than 10:1; wherein the at least one ground-in recess has a planar bottom.*

Independent claim 26 is directed to an element similar to that of claim 12 except it recites “the lateral wall surface of the ground-in recess has a mean roughness value of smaller than 6 μm ” (Claims Appendix 11).

Independent claim 27 is directed to an element similar to that of claim 12 except it recites “at least one lateral ground-in channel at an end of the ground-in recess near the bottom” (Claims Appendix 11).

OPINION

Upon consideration of the evidence of record and each of Appellant’s contentions as set forth in the Appeal Brief, as well as the Reply Brief, we determine that Appellant has not demonstrated reversible error in the

Examiner’s rejections (e.g., *generally* Ans.). *In re Jung*, 637 F.3d 1356, 1365–66 (Fed. Cir. 2011) (explaining the Board’s long-held practice of requiring Appellant(s) to identify the alleged error in the Examiner’s rejection). We sustain the rejections for the reasons expressed by the Examiner in the Final Office Action and the Answer.

We add the following primarily for emphasis.

Appellant’s main contention is that the “ground-in recess” is a structural limitation that must be given weight (Appeal Br. 3, 4), contrary to the Examiner’s position that it is a product-by-process limitation for which the Appellant has not met the burden of showing the structure is different (e.g., Ans. 11). Appellant states that *In re Garnero*² already held that the similar term “ground in place” was capable of construction as a structural limitation (Appeal Br. 4; Reply Br. 2). Appellant states the Specification provides “evidence” that it was not possible to produce a blind hole making a ground-in recess with a tool shank diameter to tool length of smaller than 1:10 in glass ceramics with a still acceptable reduction in material strength (Appeal Br. 5; Spec. ¶ 9).

Appellant’s arguments are not persuasive of reversible error. Appellant has not disputed the Examiner’s position that it would have been obvious “to adjust” the size of the blind recesses of Westerhoff in order “to optimize the weight, volume, and rigidity of the substrate” (Ans. 5) (i.e., dimensions were known result effective variables). Westerhoff also teaches that glass ceramic elements “can only be ground” and “have to be shaped by grinding” (Westerhoff ¶ 28). The “greater than 10:1” ratio recited in each

² *In re Garnero*, 412 F.2d 276 (CCPA 1969).

independent claim of recess depth to radius is *de facto* equivalent to a 1:10 ratio of radius to recess depth. Appellant's Specification states that it wasn't possible to grind blind holes using (prior art) tools having a ratio of tool shank **diameter** to tool length smaller than 1:10, which suggests that ratios of *up to* 1:10 were possible and known. (Spec. ¶ 9). This ratio of diameter/length of 1:10 corresponds to a radius/length ratio of 1:20, which is smaller than the radius/length (depth) ratio of 1:10, and concomitantly greater than the length (depth)/radius ratio of greater than 10:1 of claim 12.³ Thus it appears that a range of a blind hole/recess dimension made by the prior art tool would have overlapped the recited range, even when taking into account a slightly larger diameter tool head on the tool shank. It is well established that a prima facie case of obviousness exists where the prior art and claimed ranges overlap. See *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003); *In re Geisler*, 116 F.3d 1465, 1469 (Fed. Cir. 1997); *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 783 (Fed. Cir. 1985).

Appellant has not established with persuasive evidence or technical reasoning that a recess having a depth to radius greater than 10:1, for example, 10.1:1 or 11:1, would have been unobtainable using the prior art tool having a diameter to length (i.e., possible depth of blind hole) of 10:1

³ An applicant cannot defeat an obviousness rejection by asserting that the cited references fail to teach or suggest elements which the applicant has acknowledged are taught by the prior art. *Constant v. Advanced Micro-Devices, Inc.*, 848 F.2d 1560, 1570 (Fed. Cir. 1988) and *In re Nomiya*, 509 F.2d 566, 571 n.5 (CCPA 1975) (a statement by an applicant that certain matter is prior art is an admission that the matter is prior art for all purposes).

(radius/depth of 20:1) taught in Appellant's Specification. *Cf. In re Bulina*, 362 F.2d 555, 559 (CCPA 1966) (“[A]n affidavit by an applicant or co-applicant as to the advantages of his invention is less persuasive than one made by a disinterested person.”); *see also Yorkey v. Diab*, 601 F.3d 1279, 1284 (Fed. Cir. 2010) (factfinder has discretion to give more weight to one item of evidence over another unless no reasonable trier of fact could have done so).

It has also been established that “the [obviousness] analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007); *see also In re Fritch*, 972 F.2d 1260, 1264–65 (Fed. Cir. 1992) (a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in the art would have reasonably been expected to draw therefrom).

Appellant further contends that the prior art does not teach or suggest the recess having “a planar bottom” as recited in claim 12. Appellant argues that Westerhoff teaches that it is necessary to have a convex bottom which leads away from the claimed invention (Appeal Br. 6; Reply Br. 2). These arguments are not persuasive for reasons stated by the Examiner (e.g., Ans. 12). It is well established that a prior art reference must be considered in its entirety, i.e., as a whole, when determining if it would lead one of ordinary skill in the art away from the claimed invention. *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 1550 (Fed. Cir. 1983); *In re Harris*, 409 F.3d 1339, 1341 (Fed. Cir. 2005) (whether a reference teaches away from a claimed invention is a question of fact). As pointed out by the Examiner,

one of ordinary skill in the art would have inferred that a planar bottom may be used based on the left hand portion of Westerhoff's Fig. 3 (Ans. 12, relevant portion circled by the Examiner on a copy of Fig. 3). Indeed, even the other portions of Westerhoff's Fig. 3 indicate a planar bottom but for the rounded edges. The claimed "planar bottom" does not preclude rounded edges and thus also encompasses the planar bottom depicted in Westerhoff's Fig. 3.

With respect to claim 26, Appellant's arguments that "[t]here is simply no teaching or suggestion available from the etching process of Bagby as to how to provide a ground-in recess with a mean roughness value" as recited therein (Appeal Br. 7; Reply Br. 3) does not fully address the Examiner's obviousness rejection which relies upon subjecting the glass ceramic of Westerhoff (which has a (ground-in) recess therein) to the method of Bagby to produce the recited surface roughness (Ans. 14).

With respect to claim 27, Appellant's arguments that the combination of Westerhoff and Jagdt do not teach or suggest a ground-in lateral channel as recited therein (Appeal Br. 7, 8; Reply Br. 3, 4) are not persuasive of error as they fail to address the applied prior art as a whole and the inferences that one of ordinary skill would have made (Ans. 14, 15).

Thus, Appellant has not shown error in the Examiner's position that it would have been obvious for one of ordinary skill to have made the glass ceramic element of Westerhoff with the claimed features as recited in independent claims 12, 26, and 27 based on the applied prior art. *See KSR*, 550 U.S. at 417 (the predictable use of known prior art elements performing the same functions they have been known to perform is normally obvious; the combination of familiar elements is likely to be obvious when it does no

more than yield predictable results); *Ball Aerosol & Specialty Container, Inc. v. Limited Brands, Inc.*, 555 F.3d 984, 993 (Fed. Cir. 2009) (under the flexible inquiry set forth by the Supreme Court, the PTO must take account of the “inferences and creative steps,” as well as routine steps, that an ordinary artisan would employ) (emphasis omitted).

Accordingly, we sustain the Examiner’s rejection of independent claims 12, 26, and 27, as well as all claims dependent thereon, noting that no dependent claims are separately argued (Appeal Br. *generally*).

CONCLUSION

In summary:

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
12, 15, 17, 18, 20–25	103	Westerhoff	12, 15, 17, 18, 20–25	
13, 26	103	Westerhoff, Bagby	13, 26	
27, 28	103	Westerhoff, Jagdt	27, 28	
Overall Outcome			12, 13, 15, 17, 18, 20–28	

TIME PERIOD FOR RESPONSE

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