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The opinion in support of the decision being entered today
(1) was not written for publication in a law journal and
(2) is not binding precedent of the Board.

Paper No. 67

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID E. WELSH
and OLIVER L. SIMS

Appeal No. 96-0706
Application 08/185,756¹

HEARD: September 18, 1997

Before STONER, *Chief Administrative Patent Judge*, and LYDDANE and CRAWFORD, *Administrative Patent Judges*.

STONER, *Chief Administrative Patent Judge*.

DECISION ON APPEAL

David E. Welsh and Oliver L. Sims, appellants, appeal from the final rejection of claims 23 through 40 under the provisions

¹Application for patent filed January 24, 1994. According to appellants, the application is a continuation of Application 07/643,170, filed January 22, 1991, now abandoned, which is a continuation of 06/804,339, filed December 5, 1985, now abandoned, which is a continuation of application 06/537,113, filed September 29, 1983, now abandoned.

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of 35 U.S.C. § 112, first paragraph. Claims 16, 17, 18, 20, 21 and 22, the only other claims pending in this application, have been allowed. We *reverse*.

The claimed invention pertains to an unbalanced aluminum drive shaft having a balance weight of density greater than that of aluminum secured thereto. We will not further elaborate upon the claimed invention inasmuch as this is the second appeal involving precisely the same claims and rejection. In Appeal Number 93-4353, decided November 24, 1993, in parent application No. 07/643,170, a merits panel of this board affirmed the examiner's rejection of identical claims 23 through 40 under 35 U.S.C. § 112, first paragraph. In that decision, the panel several times noted that there was "no persuasive evidence of record which would support . . . [the appellants'] position [concerning knowledge possessed by the skilled worker] and counsel's argument in the brief cannot take the place of such evidence" (decision, pp. 5 and 7). Familiarity with that earlier appeal and decision is presumed.

In the present continuation application, the appellants have accepted the earlier panel's implicit invitation to provide evidence to support the appellants' position. In particular, the appellants have come forward with declarations by (1) Donald A.

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Rhoda, Chief Metallurgist for the Spicer Universal Joint Division of Dana Corporation², (2) David E. Welsh, one of the co-inventors and an employee of the Spicer Universal Joint Division of Dana Corporation, and (3) Douglas E. Breese, an Applications Engineer employed by the Spicer Universal Joint Division of Dana Corporation. Each declarant states that he is very familiar with many metallurgical processes based on his training and employment and declares, in identically worded statements, the following:

4. Although not expressly stated in the specification of the application as originally filed, it is clear to me that the aluminum welding material is welded only to the surface of the drive shaft, and is not welded to any portion of the body of the balance weight. I know this to be true because of the relationship between the inherent properties of aluminum and steel. Aluminum has a relatively low melting temperature in comparison to steel. Thus, when molten aluminum welding material is introduced into the aperture formed through the body of the balance weight, the temperature thereof is too low to melt any portion of the balance weight. Rather, the molten aluminum welding material only contacts the inner surface of the aperture and the outer surface of the body of the balance weight, without causing any melting or welding.

5. Welding is a process by which metals are joined together by the application of heat such that they melt together. In the specification of the application as originally filed, it is clear to me that the aluminum welding material melts a portion of the outer surface of the aluminum drive shaft so as to be

² Dana Corporation is indicated to be the assignee of the present application and the real party in interest in the present cause.

joined thereto. However, the balance weight is described as being formed from a material having a "higher density" than aluminum. Further, the molten aluminum is described in the specification as originally filed as being applied such that a small amount of the material overflows the aperture so as to form a "cap" or "rivet-like weld" to retain the body of the balance weight on the aluminum drive shaft. Thus, it is also clear to me that the term "higher density" indicates that the specific metal (such as steel) used to form the body of the balance weight is not only heavier per unit volume than aluminum, but also possesses a higher melting temperature than aluminum. The aluminum welding material does not and cannot melt any portion any portion [sic] of a balance weight made from such a "higher density" material. Any person having ordinary skill in the metallurgical art would easily comprehend this inherent result from the specification of the application as originally filed.

6. It follows, therefore, that the aluminum welding material does not and cannot cause any substantial deformation of any portion of the body of the balance weight. Much like when hot water is poured into a glass, the temperature of the molten aluminum welding material is simply too low to cause any melting of the "higher density" material, such as steel, which forms the body of the balance weight. Without any such melting, there can be no substantial deformation of the body of the balance weight.

7. Consequently, it is clear to me that the aluminum welding material which extends over the portion of the second end of the body (forming the so-called cap) must provide the sole structure for retaining the body of the balance weight on the surface of the aluminum drive shaft. This must be the result, inasmuch as there is no melting of the balance weight body and, therefore, no welding between the aluminum drive shaft and the balance weight body. Absent the cap structure, it is clear to me that the balance weight body would simply fall off of the drive shaft. The presence of the aluminum welding material within

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the balance weight body aperture could not, of itself,
retain the body on the surface of the drive shaft.

* * *

9. The only language of Claim 23 which is not expressly described in the specification of the application as originally filed is that (1) the aluminum welding material is welded only to the surface of the drive shaft and (2) the aluminum welding material extends over, but is not welded to, a portion of the second end of the body.

10. Notwithstanding the lack of express language in the specification of the application as originally filed to this effect, it is clear to me that the specification of the application as originally filed clearly provides support for the noted language of Claim 23. Specifically, at Page 4, Lines 25-30, it is stated that the molten aluminum wire "...is supplied to the interior of the aperture 14....The aperture 14 forms a mold for the molten aluminum 18 above the outer surface of the drive shaft 10". In my opinion, the language "forms a mold" clearly indicates that the molten aluminum is not welded to or otherwise adhered to the body of the balance weight 12.

11. Generally speaking, molds are used to cast articles into desired shapes, then are removed. Sometimes, such molds may be salvaged for re-use when removed from about the cast article. Other times, the molds are destroyed. In either case, the molds do not adhere to the cast article. Likewise, in the specification of the application as originally filed, it is clear to me that the body of the balance weight is not welded or otherwise adhered to the welding material which is supplied therein. Such a situation would run contrary to the plain import of the specification of the application as originally filed, given my knowledge of the inherent properties of aluminum and "higher density" materials, as described above.

12. At Page 4, Lines 30-33, it is stated that "[t]he molten aluminum 18 can be applied such that a small amount of the material overflows the volume of the aperture 14 so as to form a "cap" thereover." In my opinion, the provision of a "cap" further supports the

fact that a non-welded connection is provided between the aluminum drive shaft and the steel body of the balance weight. If a direct welded connection were provided, there would be no need for the "cap" to retain the body of the balance weight on the drive shaft. Again, in my opinion, such a situation would run contrary to the plain import of the specification.

13. At Page 4, Lines 33-34, it is stated that "[t]he molten aluminum 18 adheres readily to the outer surface of the aluminum drive shaft 10." Noticeably absent from this sentence is any suggestion that the molten aluminum adheres (readily or otherwise) to the body of the balance weight. At a minimum, this language indicates to me that the molten aluminum does not weld to the body. When read in context and with the knowledge of the relative metallurgical properties of aluminum and "higher density" materials which would be well known to any person of ordinary skill in this art, it is clear to me that the specification is describing a structure wherein the balance weight is not welded to the drive shaft.

14. At Page 4, Line 34 to Page 5, Line 1, it is stated that "[i]n this manner, a secure spot or rivet-type weld is formed which will maintain the balance weight 12 against the drive shaft 10". Again, the obvious and unambiguous conclusion which a person having ordinary skill would draw from this language (and the preceding language) is that the aluminum welding material is spot welded (i.e., "adheres readily") to the outer surface of the aluminum drive shaft and is formed with a cap to mechanically retain the body of the balance weight against the drive shaft, like a rivet.

15. The only language of Claim 29 which is not expressly described in the specification of the application as originally filed is that the cap provides the sole means for retaining the balance weight upon the drive shaft. Similarly, the only language of Claim 35 which is not expressly described in the specification of the application as originally

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filed is that the aluminum welding material does not substantially deform the body of the balance weight. For the reasons set forth above, it is my opinion that these items are characteristics which are inherent in the structure which is expressly described in the specification of the application as originally filed. I believe that any person having ordinary skill in this art would understand that this structure is present in the specification of the application as originally filed, even without any express comments to that effect.

The examiner has maintained the position taken in the earlier application and remains of the view that claims 23 through 40 are based upon a disclosure which fails to provide descriptive support for the invention now being claimed, as required by 35 U.S.C. § 112, first paragraph, notwithstanding the declarations. The examiner's evaluation of these declarations is contained at pages 3 through 8 of the final Office action mailed August 31, 1994. The examiner has otherwise responded to this evidence primarily by referring to statements in our earlier decision (answer, pp. 3-4). In sum, the examiner appears to be of the view that (1) the declarations primarily set forth opinions, entitled to little weight, (2) to the degree that facts are set forth in the declarations, those facts should have been part of the specification of the application as filed, and (3) the facts set forth are insufficient to establish the matters for which they are advanced.

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Having carefully considered the conflicting points of view expressed by the appellants and the examiner, we conclude that the § 112, first paragraph rejection of claims 23 through 40 must be reversed.

The situation here is reminiscent of that in *In re Alton*, 76 F.3d 1168, 37 USPQ2d 1578 (Fed Cir. 1996). In *Alton*, the examiner gave little or no weight to a declaration submitted by the appellant Alton to overcome a rejection under 35 U.S.C. § 112, first paragraph for failing to provide an adequate written description of the there-claimed amino acid sequence. *In re Alton*, 76 F.3d at 1171, 37 USPQ2d at 1580. In vacating the decision below, the court pointed out:

The adequate written description requirement of 35 U.S.C. § 112, ¶ 1, provides that

[t]he specification shall contain a *written description of the invention*, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

(emphasis added).

The adequate written description requirement, . . . serves "to ensure that the inventor had possession, as of the filing date of the application

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relied on, of the specific subject matter later claimed by him; how the specification accomplishes this is not material." *In re Wertheim*, 541 F.2d 257, 262, 191 USPQ 90, 96 (CCPA 1976). In order to meet the adequate written description requirement, the applicant does not have to utilize any particular form of disclosure to describe the subject matter claimed, but "the description must clearly allow persons of ordinary skill in the art to recognize that [he or she] invented

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what is claimed." *In re Gosteli*, 872 F.2d 1008, 1012, 10 USPQ2d 1614, 1618 (Fed. Cir. 1989) (citation omitted). Put another way, "the applicant must . . . convey with reasonable clarity to those skilled in the art that, as of the filing date sought, he or she was in possession of the invention." *Vas-Cath [Vas-Cath, Inc. v. Mahurkar]*, 935 F.2d 1555, 19 USPQ2d 1111 (Fed. Cir. 1991)] 935 F.2d at 1563-64, 19 USPQ2d at 1117. Finally, we have stated that "[p]recisely how close the original description must come to comply with the description requirement of section 112 must be determined on a case-by-case basis." *Eiselstein v. Frank*, 52 F.3d 1035, 1039, 34 USPQ2d 1467, 1470 (Fed. Cir. 1995) (quoting *Vas-Cath*, 935 F.2d at 1561, 19 USPQ2d at 1116).

76 F.3d at 1172, 37 USPQ2d at 1581 (footnote omitted).

Here, as in *Alton*, the examiner appears to have given little or no weight to what he has characterized as allegations and opinions of declarants skilled in the art. Each declarant's use of the words "it is clear to me", just like the declarant's use of the prefatory phrase "it is my opinion" in *Alton* to preface what someone of ordinary skill in the art would have known "does not transform the factual statements contained in the declaration into opinion testimony." Similar to the situation in *Alton*, the examiner here erred by dismissing the declarations

without an adequate explanation of how the declaration failed to overcome the prima facie case initially established . . . -- the rejection on the ground that the application failed to describe the [claimed] subject matter The examiner . . . "bears the initial burden . . . of presenting a prima facie case of unpatentability." *In re Oetiker*, 977 F.2d 1443,

1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Insofar as the written description requirement is concerned, that burden is discharged by "presenting evidence or reasons why persons skilled in the art would not recognize in the disclosure a description of the invention defined by the claims." *Wertheim*, 541 F.2d at 263, 191 USPQ at 97. Thus, the burden placed on the examiner varies, depending upon what the applicant claims. If the applicant claims embodiments of the invention that are completely outside the scope of the specification, then the examiner or Board need only establish this fact to make out a prima facie case. *Id.* at 263-64, 191 USPQ at 97. If, on the other hand, the specification contains a description of the claimed invention, albeit not *in ipsius verbis* (in the identical words), then the examiner . . . , in order to meet the burden of proof, must provide reasons why one of ordinary skill in the art would not consider the description sufficient. *Id.* at 264, 191 USPQ at 98. Once the examiner . . . carries the burden of making out a prima facie case of unpatentability, "the burden of coming forward with evidence or argument shifts to the applicant." *Oetiker*, 977 F.2d at 1445, 24 USPQ2d at 1444. To overcome a prima facie case, an applicant must show that the invention as claimed is adequately described to one skilled in the art. "After evidence or argument is submitted by the applicant in response, patentability is determined on the totality of the record, by a preponderance of the evidence with due consideration to persuasiveness of argument." *Id.* at 1445, 24 USPQ2d at 1444.

. . . The purpose of the adequate written description requirement is to ensure that the inventor had possession of the claimed subject matter at the time the application was filed. If a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing, even if every nuance of the claims is not explicitly described in the specification, then the adequate written description requirement is met. For example, in *Ralston Purina Co. v. Far-Mar Co., Inc.*, 772 F.2d 1570, 1576, 227 USPQ

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177, 180 (Fed. Cir. 1985), the trial court admitted expert testimony about known industry standards regarding temperature and pressure in "the art of extrusion of both farinaceous and proteinaceous vegetable materials." The effect of the testimony was to expand the breadth of the actual written description since it was apparent that the inventor possessed such knowledge of industry standards of temperature and pressure at the time the original application was filed.

In re Alton, 76 F.3d at 1175-76, 37 USPQ2d at 1583-84.

In the present case, we think that the preponderance of the evidence before us supports the appellants' view that a person of ordinary skill in the art would have understood the inventor to have been in possession of the claimed invention at the time of filing. As the court pointed out in *Alton*, there is no requirement that every nuance of the claims be explicitly described in the specification. That being the case, the decision of the examiner must be reversed.

REVERSED

BRUCE H. STONER, JR., Chief)
Administrative Patent Judge)
)
)
) BOARD OF PATENT
WILLIAM E. LYDDANE)
Administrative Patent Judge) APPEALS AND
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