

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CLARIANT CORPORATION,
Petitioner,

v.

CSP TECHNOLOGIES, INC.,
Patent Owner.

Case IPR2014-00375
Patent 8,528,778 B2

Before JAMES T. MOORE, KEN B. BARRETT,
and PHILLIP J. KAUFFMAN, *Administrative Patent Judges*.

KAUFFMAN, *Administrative Patent Judge*.

FINAL WRITTEN DECISION
35 U.S.C. § 318(a) and 37 C.F.R. § 42.73

I. BACKGROUND

A. Procedural History

Clariant Corporation (“Petitioner”) filed a Petition (Paper 2, “Pet.”) seeking an *inter partes* review of claims 1-7 of U.S. Patent No. 8,528,778 B2 (Ex. 1001, “the ’778 patent”) pursuant to 35 U.S.C. §§ 311–319. CSP Technologies, Inc. (“Patent Owner”) did not submit a preliminary response.

In the Decision to Institute (Paper 9, “Inst. Dec.”), we instituted trial on claims 1–7 based on the following grounds:

- 1) claims 1-7 based on anticipation under 35 U.S.C. § 102 by Hekal ’108¹; and
- 2) claims 1-7 on obviousness under 35 U.S.C. § 103 over Wheeler², and one of either Hekal ’108, Hekal ’937³, or Sacherer⁴;

Subsequently, Patent Owner filed a Patent Owner Response (Paper 15, “PO Resp.”), and Petitioner filed a Reply (Paper 19, “Pet. Reply”).

Patent Owner did not file a motion to amend.

At the request of both parties, oral hearing was held on February 18, 2015. Papers 20, 21, and 22. A transcript of the oral hearing is included in the record. Paper 27 (“Tr.”).

For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1-7 of the ’778 patent are unpatentable.

¹ Ex. 1015, WO 96/33108 A1, published October 24, 1996.

² Ex. 1023, US 4,043,475, issued August 23, 1977.

³ Ex. 1018, US 5,911,937, issued June 15, 1999.

⁴ Ex. 1021, US 5,788,064, issued August 4, 1998.

B. Related Proceedings

Patent Owner asserted the '778 patent against Petitioner in *CSP Technologies, Inc. v. Clariant Produkte (Deutschland) GmbH*, No. 4:13-CV-0142 TWP-WGH (S.D. Ind.). Pet. 1-2; Paper 7, 1-2.

II. THE CLAIMED SUBJECT MATTER

A. The '778 Patent

The '778 patent is a continuation of application No. 12/425,590, now abandoned, which is a continuation of application No. 11/171,171, now U.S. 7,537, 137 B2 (the "'137 patent"), which is a continuation of application No. 10/683,311, now U.S. 7,213,720 B2 (the "'720 patent"). Ex. 1001, 1. The '778 patent incorporates the '137 and the '720 patents by reference. *Id.* at 1:8-17.

The '778 patent relates to a resealable container and lid assembly that includes a lip snap seal for storing and packaging moisture-sensitive items. Ex. 1001, 1:21-23. When sealed, the assembly is substantially moisture-proof in that it substantially prohibits the ingress of moisture into the container assembly through the lid. *Id.* at 1:34-37. The assembly can include a desiccant to reduce the moisture present within the container after it is sealed. *Id.* at 1:37-40.

Figure 1 of the '778 patent is reproduced below:

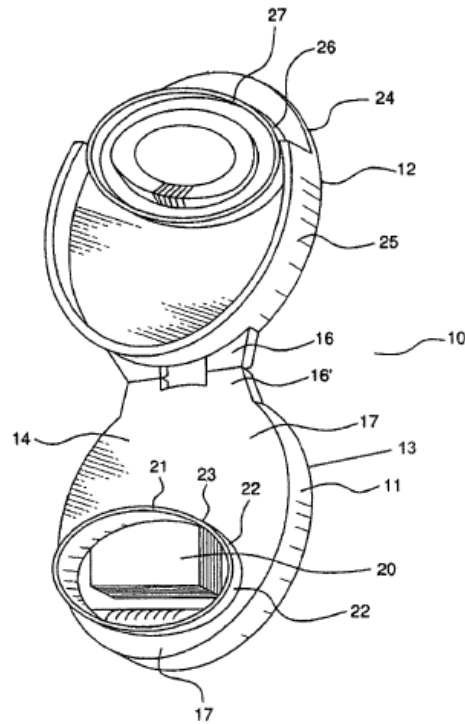


FIG. 1

Figure 1 is a perspective view of a container of the '778 patent. Ex. 1001, 2:66-67.

In one embodiment, container and lid assembly 10 includes container portion 14 attached by hinge 16 to lid portion 12. *Id.* at 3:41-43; Fig. 1. Container portion 14 includes sidewall 11 depending upwardly from base 13, and top container surface 17 extending inward from sidewall 11. *Id.* at 49-51. Top container surface 17 includes opening 20 that permits access to the interior of the container. *Id.* at 3:51-53. Opening 20 is bounded by lip 22 that extends upwards from top container surface 17. *Id.* at 3:53-55. Lip

22 includes distal end 21 having outward facing peripheral extension 23. *Id.* at 3:56-60.

Lid portion 12 includes periphery 25 that extends over at least a portion of container portion 14.⁵ *Id.* at 3:61-63. Lid portion 12 also includes base portion 24 having a downwardly depending skirt 26 that includes inwardly facing peripheral extension 28 at distal end 27. *Id.* at 3:61, 65-67; 4:7-12. Skirt 26 is positioned to enter into a closing relationship (within or over the periphery) with lip 22 of container portion 14. *Id.* at 3:67-4:5.

Figure 2 follows:

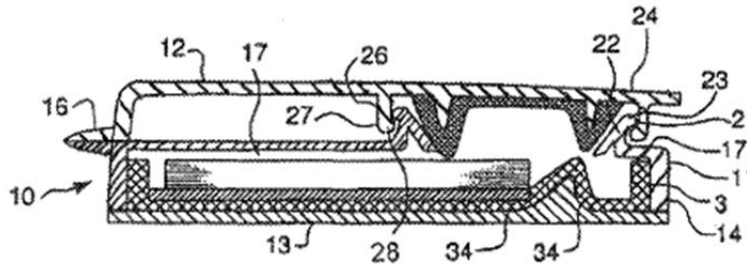


FIG. 2

Figure 2 is a cross sectional view of a container of the present invention and illustrates that, when closed, a moisture-tight seal is provided by inward facing extension 28 at distal end 27 of skirt 26 of lid portion 12 abutting and interlocking with extension 23 of lip 22 of container portion 14. *Id.* at 3:1-2; 4:12-18. Lip seal member 30 provides an additional sealing position by applying pressure to lip 22, which in turn, applies pressure to skirt 26. *Id.* at 4:23-31; Fig. 3.

⁵ Though not explicit, this description appears to apply to lid portion 12 when in the closed position. Ex. 1001, Figs. 1, 2.

In another embodiment, lid portion 12 may include lip seal member 30 positioned interiorly to skirt 26, depending downwardly from the base portion 24 so that, when closed, lip seal member 30 abuts the interior side of lip 22 of container 14. *Id.* at 4:19-23; Fig. 3.

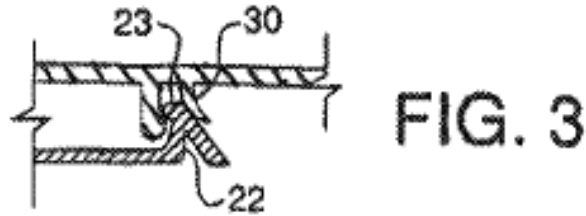


Figure 3 is a side elevation view of a lip seal. *Id.* at 3:3-4.

In yet another embodiment, distal end 27' of lip 22' is provided with an extension 28', and skirt 26' includes a recess 23' positioned near where it depends from base portion 24'. *Id.* at 4:33-36; Fig. 10. Figure 10 of the '778 patent is reproduced below:

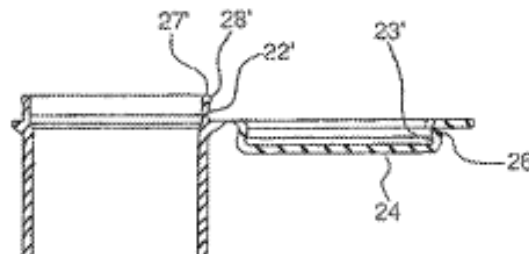


FIG. 10

Figure 10 is a cross sectional view of another embodiment of a container of the '778 patent. *Id.* at 3:19-20, 4:33.

The embodiment shown in Figure 1 differs from that of the embodiment shown in Figure 10 in at least two respects. First, lip 22 of the

embodiment of Figure 1 extends from top container surface 17 while lip 22' of Figure 10 extends from the sidewall (unlabeled in Figure 10). Second, the embodiment shown in Figure 10 does not include lip seal member 30.

B. Claim Construction

The Board interprets claims using the broadest reasonable construction. *See* 37 C.F.R. § 42.100(b); Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012); *see also In re Cuozzo Speed Techs., LLC*, 778 F.3d 1271, 1281 (Fed. Cir. 2015) (“We conclude that Congress implicitly adopted the broadest reasonable interpretation standard in enacting the AIA.”).

Claim 1 is the sole independent claim in the '778 patent and is reproduced below with emphasis on contested limitations:

1. A substantially-moisture proof container and lid assembly for storing and packaging moisture-sensitive items comprising:
an assembly with a container and a lid;
 - a) the container has a container base, and a sidewall extending upwardly from the container base;
 - i) a top of the container is provided with an opening that permits access to an interior of the container;
 - ii) the opening is spaced away from an outer surface of the sidewall of the container[] by at least a portion of the thickness of the sidewall of the container;
 - iii) the container contains a desiccant;
 - b) *the lid is attached by a hinge to the container*, the lid has an outer periphery that extends over at least a portion of the container, the lid is provided with a skirt that extends downwardly therefrom;
 - i) the skirt of the lid is positioned at a location on the lid that allows the skirt of the lid to close over the top

of the container, wherein the skirt of the lid fits over a periphery the top of the container;

wherein the skirt of the lid includes an inwardly facing extension, a lip of the top of the container includes an outwardly facing extension, the inwardly facing extension of the skirt of the lid and the outwardly facing extension of the lip abut and interlock with each other in a snap-fit configuration when the lid is in the closed position; and

ii) *the lid further includes a flexible lip seal member that extends downwardly therefrom, the flexible lip seal member of the lid is configured to abut at least a portion of the interior side of the top container surface when the lid is in the closed position;*

wherein the flexible lip seal member is designed to be sufficiently deflective so as to provide a sealing position, when the skirt of the lid is closed over the top container, which results in a substantially moisture proof seal between the lid and the container.

Ex. 1001, 8:1 (claim 1). Claims 2–7 depend, directly or indirectly, from claim 1.

1. Sufficiently Deflective

Patent Owner contends that claim 1 requires that the flexible lip seal member is deflected in the closed position. For the reasons that follow, we disagree.

Patent Owner's contention is undermined by the plain text of claim 1. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005) (citation omitted) (“[T]he claims themselves provide substantial guidance as to the meaning of particular claim terms,” and “the context of the surrounding

words of the claim also must be considered in determining the ordinary and customary meaning of those terms”).).

Claim 1 is directed to a substantially-moisture proof container and lid assembly for storing and packaging moisture-sensitive items. Claim 1 requires the lid to include a flexible lip seal member configured to abut at least a portion of the interior side of the top container surface when the lid is in the closed position, and recites,

wherein the flexible lip seal member is designed to be sufficiently deflective so as to provide a sealing position, when the skirt of the lid is closed over the top container, which results in a substantially moisture proof seal between the lid and the container.

Claim 1 does not state explicitly that the flexible lip seal member is deflected when in the closed position, nor does claim 1 specify a minimum amount of deflection in the form of a quantitative amount of deflection. Rather, claim 1 states that the flexible lip seal member has the characteristic of being “sufficiently deflective” so as to provide a sealing position (when closed) that is substantially moisture proof. In doing so, claim 1 defines sufficiently deflective as the characteristic of being deflective enough to provide a substantially moisture proof seal. That is, the flexible lip seal member is “sufficiently deflective” as claimed so long as it provides a substantially moisture proof seal between the lid and the container, even if it is not deflected.

Differences between claim 1 and claim 7 also undermine Patent Owner’s claim construction. *See Laitram Corp. v. Rexnord, Inc.*, 939 F.2d

1533, 1538 (Fed. Cir. 1991) (Differences among claims can also be a useful guide in understanding the meaning of particular claim terms.). Here, claim 7 recites that the flexible lip seal member is sufficiently deflective “so as to be deflected in the closed position.”

This contrast between claims 1 and 7 demonstrates two points.⁶ First, claim 7 explicitly states that the flexible lip member is deflected when in the closed position while claim 1 instead states that the lip seal member provides a sealing position (when closed) that is substantially moisture proof. This difference illustrates that the drafter of the '778 claims knew how to state that the lip seal member was deflected in the closed position and chose not to do so for claim 1. Second, the presence of the limitation that the lip seal member is deflected in the closed position in claim 7 suggests that such limitation is not present in independent claim 1. *See Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 910 (Fed. Cir. 2004) (“[W]here the limitation that is sought to be ‘read into’ an independent claim already appears in a dependent claim, the doctrine of claim differentiation is at its strongest.”).

With the language of the claim in mind, we turn to the Specification. *In re Fout*, 675 F.2d 297, 300 (CCPA 1982) (“Claims must always be read in light of the specification.”). The Specification of the '778 patent does not provide a lexicographical definition of the claim term “deflective.” The Specification describes embodiments having a lip seal member 30, 30', and

⁶ If claim 1 is interpreted to require the flexible lip seal member to be deflected in the closed position, then claim 7 does not further limit claim 1 as it is required to do. *See* 35 U.S.C. § 112(d).

300. Ex. 1001, 4:19-32; 5:34-48; Figs. 3, 4, 14. These lip seal members are not described as deflective. *Id.* Consequently, these embodiments shed little or no light on the limitation at issue.

In parity with the claim language, the Specification describes a further embodiment of a lip seal mechanism that is designed to be “sufficiently deflective so as to assist in the formation of a seal.”⁷ *Id.* at 5:49-56. The Specification does not use the term “deflective” or variations of the term, outside of this disclosure and the claims. The Specification is consistent with our interpretation that an element is “sufficiently deflective” if it provides a substantially moisture proof seal.

Accordingly, a flexible lip seal member is “sufficiently deflective” as recited in claim 1 if it provides a substantially moisture proof seal even if it is not deflected.

2. *Attached*

Claim 1 recites that “the lid is attached by a hinge to the container.” Patent Owner argues that Wheeler discloses a hinge that attaches two pieces of the lid together instead of a hinge that attaches the lid to the container. PO Resp. 37-38. Implicit in Patent Owner’s contention is the claim interpretation that claim 1 requires the hinge to attach the lid directly to the container.

Just as the ordinary meaning of “connect” and its variations (e.g., connecting, connected, connection) covers both direct and indirect connections (i.e., a connections having an intermediate element), so too

⁷ This lip seal mechanism is not given an element number, nor depicted.

“attach” and its variations (e.g., attached, attachment) covers both direct and indirect attachment (i.e., attachment having an intermediate element). *See Ullstrand v. Coons*, 147 F.2d 698, 700 (CCPA 1945) (the accepted definition of the term “connected” is restricted to neither a direct nor an indirect connection, and it is therefore applicable to an indirect connection); *see also Southco, Inc. v. Fivetech Tech. Inc.*, Civ. No. 2014-1390, 2015 WL 1609846, at *2 (E.D. Pa. Apr. 10, 2015) (the ordinary meaning of attached includes both direct and indirect attachment).

The Specification does not provide a lexicographical definition of “attached,” and echoes the claim language, describing that the lid and container may be attached by a hinge. *See, e.g.*, Ex. 1001, 1:45-47; 3:41-43. Accordingly, we discern nothing in the Specification inconsistent with the interpretation that “attached” covers both direct and indirect attachment.⁸

Consequently, claim 1 covers both direct and indirect attachment of the lid to the container.

⁸ Nor do we discern any disclosure in the ’137 patent or that ’720 patent inconsistent with the ordinary meaning of “attached.” *See NTP Inc. v. Research in Motion, Ltd.*, 418 F.3d 1282, 1293 (Fed. Cir. 2005) (When construing claims in patents that derive from the same parent application and share common terms, “we must interpret the claims consistently across all asserted patents.”); *see also Belden Inc. v. Berk-Tek LLC*, Civ. Nos. 2014-1676, 2014-1677, 2015 WL 1781484, at *3 (Fed. Cir. Apr. 17, 2015) (approving of the Board’s claim construction that referred to a parent and grandparent application that were incorporated by reference).

III. ANTICIPATION GROUND

Petitioner contends that claims 1-7 are unpatentable as anticipated by Hekal '108. *See* Pet. 13, 15-23. In support of the assertion that Hekal '108 anticipates claims 1-7 of the '778 patent, Petitioner provides: a claim chart, an annotated figure from Hekal '108 (shown below), and the testimony of Neil Sheehan (Ex. 1008). Pet. 16-22.

A. *Hekal '108*

Hekal '108 relates to thermoplastic containers having desiccating abilities. Ex. 1015, 1:4-5.

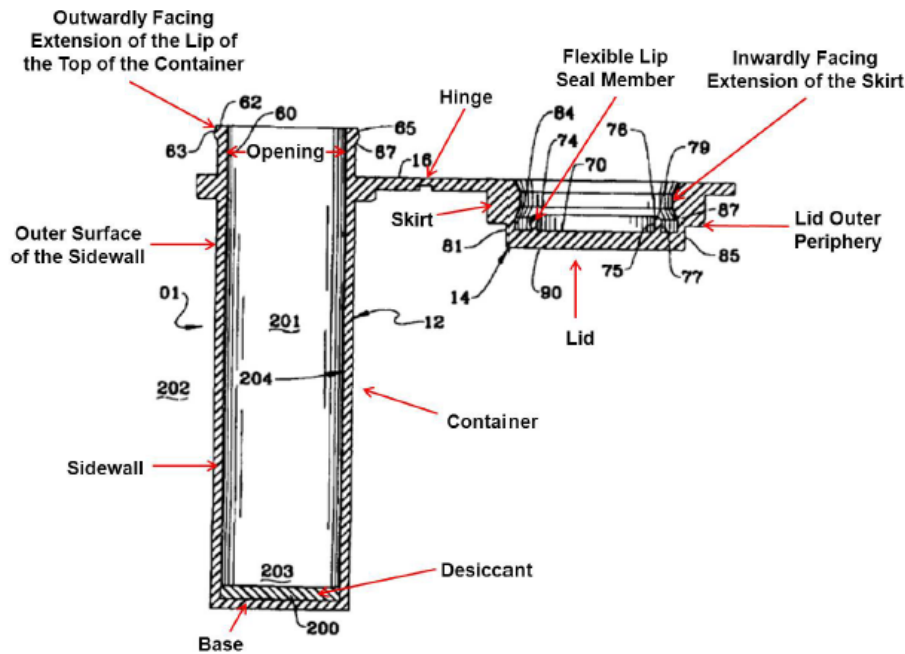
Hekal '108 expressly incorporates the entirety of Abrams⁹ by reference.¹⁰ Pet. 13; Ex. 1015, 4:15-16; *Advanced Display Sys., Inc. v. Kent State Univ.*, 212 F.3d 1272, 1282 (Fed. Cir. 2000) (“To incorporate material by reference, the host document must identify with detailed particularity what specific material it incorporates and clearly indicate where that material is found in the various documents.”). Hekal '108 uses reference numerals similar to those of Abrams to designate similar or like apparatus. Ex. 1015, 4:17-18; *see also* Pet. 19, n. 4 (noting this disclosure). Consequently, the Abrams container and the Hekal '108 container are the same container, and we refer to them interchangeably.

⁹ Exhibit 1016, U.S. Patent No. 4,783,056 (issued Nov. 8, 1988).

¹⁰ Our Decision to Institute noted and relied upon this incorporation, and Patent Owner has not challenged that determination. *See* Inst. Dec. 8-9.

B. Claims 1 and 7

Petitioner contends that Hekal '108's container is substantially moisture proof. Pet. 16; Ex. 1015, 4:26-28, Fig. 1. Figure 1 of Hekal '108 as annotated by Petitioner is reproduced below:



Annotated Figure 1 of Hekal 108

Petitioner's annotated version of Figure 1 of Hekal '108 is a cross sectional view of a desiccating container with an insert in the form of a disk molded therein. Pet. 15; Ex. 1015, 4:2-3, Fig. 1. Petitioner explains how each element of Hekal '108 corresponds to the elements of claim 1. Pet. 15-23. In particular, Petitioner asserts that annular seal 74 is configured so that, when in the closed position, it abuts at least a portion of the interior side of the top container surface. Pet. 15, 18-19, 22; Ex. 1015, Fig. 1.

Patent Owner does not contest these assertions, with the exception that Patent Owner contends that annular seal 74 (alleged to correspond to a flexible lip seal member as claimed) is not deflected when in the closed position. *See* PO Resp. 19-35; *see also* 37 C.F.R. § 42.23(a) (material facts not specifically denied may be considered admitted). Further, Patent Owner's expert acknowledges that annular seal 74 provides a moisture proof seal, is "probably flexible," and deflects somewhat when moving from the open to the closed position. *See* Pet. Reply 2-3; Ex. 1027, 139:10-140:12.

As explained in our claim construction above, claim 7 requires that the flexible lip seal member is deflected when in the closed position, but claim 1 does not. Consequently, Patent Owner's contention is commensurate in scope with claim 7, but not with claim 1. Given our analysis above, Petitioner has shown by a preponderance of the evidence that each element as set forth in claim 1 is found *Hekal '108*. *See Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1375 (Fed. Cir. 2005). We analyze Patent Owner's argument with regard to claim 7.

1. *Alleged Patent Owner Admissions*¹¹

Petitioner contends that during the prosecution of another of Patent Owner's patents, Patent Owner admitted that Hekal '108's annular seal 74 is flexible and deflective as claimed. Pet. 22 (citing Ex. 1024, 2). Specifically, Petitioner notes that Patent Owner stated that "the inner annular seal [(74) of Abrams 056] is in any event of a ***much more flexible*** nature due to its height in relation to its width and its upper region being formed as a pointed tip." *Id.*

Patent Owner contends the statement cited by Petitioner acknowledges the flexible nature of annular seal 74 of Hekal, but does not address the annular seal deflecting as claimed in the '778 patent. PO Resp. 29. Patent Owner also contends that the statement must be considered in the context that the other patent being prosecuted related to an improvement to prevent bending or damaging of the annular seal 74 caused by closing the container with the cap not properly aligned. *Id.* Thus, according to Patent Owner, the disclosure related to "flexing that damaged

¹¹ Patent Owner also makes arguments regarding the Thermo Scientific Vial. *See* PO Resp. 30-35. In the claim chart regarding the flexible lip seal member, the Petition cites to a portion of the Sheehan Declaration regarding the Thermo Vial; however, the Petition does not explain the significance of this evidence. *See* Pet. 18 (citing Ex. 1008 ¶¶ 54-59). Consequently, we do not consider this portion of the Declaration and Patent Owner's arguments are moot. *See generally Dominion Dealer Solutions, LLC. v. Autoalert, Inc.*, Case IPR2013-00225, slip op. at 3 (PTAB 10 Oct. 2013) (Paper 15) (declaration evidence is considered commensurate in scope with the presentation and discussion of that evidence in the Petition).

the seal, which is the opposite of flexing to create a seal.” *Id.* at 29-30 (citing Ex. 2001 ¶67).

The statements in dispute relate to a patent application by Patent Owner for an improvement to the Abrams’s container. Ex. 1024, 1 (Patent Owner’s response regarding the improvement to Abrams); PO Resp. 29 (acknowledging that the cited statements relate to Abrams); Ex. 2009, 18 (citing to Abrams). In that prosecution, Patent Owner contrasts the Abrams’s container and lid assembly to a prior art assembly. In particular, as Petitioner contends, Patent Owner stated that “the inner annular seal [annular seal 74 of Abrams] is in any event of a *much more flexible* nature due to its height in relation to its width and its upper region being formed as a pointed tip.” *See* Pet. 22; Ex. 1024, 2.

In the statement in dispute, Patent Owner compared annular seal 74 to another prior art reference and not to the claimed flexible lip seal member. Consequently, we agree with Patent Owner that the statement in dispute falls short of being an admission that annular seal 74 is a flexible lip seal member as claimed. However, Patent Owner’s statement is an acknowledgment that Abrams’s annular seal 74 has some degree of flexibility. Indeed, as mentioned above, Patent Owner’s expert has admitted that annular seal 74 is probably flexible.

2. “*Guiding*” and “*Nesting*”

Patent Owner contends that annular seal 74 is not deflected in the closed position because the relationship between annular seal 74, the cap

rim, and the annular region of the Hekal '108's container is a "guiding" and "nesting" relationship. PO Resp. 21--23 (citing Ex. 2001 ¶ 45).

Abrams does not use the term "nesting" to describe annular seal 74. Rather, Abrams uses the term "nesting" to refer to the interaction between tapered surface 67 of ridge 63 on vial 12 and tapered surface 87 of the rim of cap 14. Ex. 1016, 4:1; 6:23-26; Fig. 5.

Regarding the term "guiding," the nomenclature of Hekal '108 (i.e., "guiding") is not the proper inquiry. *See generally In re Bond*, 910 F.2d 831, 832 (Fed. Cir. 1990) ("These elements must be arranged as in the claim under review, but this is not an *ipsissimis verbis* test") (citation omitted); *In re Gleave*, 530 F.3d 1331, 1334 (Fed. Cir. 2009) (Although a reference must disclose each and every limitation in a claim to anticipate the claim, the reference need not satisfy an *ipsissimis verbis* test.). The proper inquiry is whether Hekal '108's annular seal 74 corresponds to a flexible lip seal member as claimed. Hekal '108 discloses that end surface 79 of seal 74 is angled to guide upper edge 62 of container 12 into annular gap 81 between annular seal 74 and the outer cap rim. Ex. 1016, 6:2-5, Fig. 5. Patent Owner has not explained persuasively how the fact that the end surface of annular seal 74 serves a guiding function demonstrates that annular seal 74 is not deflected in the closed position.

3. *Inherency*

Petitioner contends that annular ridge 63 of container 12 is wider than gap 81 of cap 14 that ridge 63 fits into in the closed position, causing annular seal 74 to be deflected when in the closed position. Pet. 18-22

(Ex. 1008 ¶ 53¹²). Specifically, Petitioner contends that the dimensions of Hekal '108 specify that ridge 63 is 37% wider than gap 81. *Id.*

Patent Owner argues that Abrams does not inherently disclose deflection of a flexible lip seal member (annular seal 74). PO Resp. 24-29. Specifically, Patent Owner contends that a person of ordinary skill would not understand that seal 74 is thicker than gap 81 because the reference uses the terms “about” and “ranging from” to describe the dimensions, and because Petitioner has “cobbled together” dimensions from different parts of the reference. PO Resp. 24-25. Further, Patent Owner contends that a container having the dimensions provided by Petitioner would not be closeable or resealable, and the force required for closing would deform and damage the container. *Id.* at 25-29 (citing to and explaining finite element analysis performed by Dr. Oswald on a container having the dimensions provided by Petitioner).

Patent Owner asks us to interpret Hekal '108 to disclose a container that cannot be closed or resealed, and when closed, would be deformed and damaged to the extent that the container is rendered unusable. This contention not supported by the references. Neither Hekal '108 nor Abrams describes the container as disposable or otherwise suitable for only a single use. Exs. 1015, 1016, *passim*. Abrams explicitly indicates that the container may be closed by describing that the vial provides a substantially hermetic seal when closed. Ex. 1016, 1:12-15. Hekal '108 describes the container as

¹² In particular, *see* page 34 of Exhibit 1008 referring to discussion regarding claim element “1N” at pages 31–32.

suitable for storing or shipping articles in an environment that is as moisture free as possible, suggesting either that the container is not damaged or deformed during closing, or at least that any damage or deformation caused by closing does not destroy the substantially moisture proof seal. *See* Ex. 1015, 1:7-9.

Patent Owner's contention that Petitioner "cobbled together" the dimensions from different parts of the specification does not support persuasively Patent Owner's argument that Abrams does not disclose a lip seal member as claimed. *See* PO Resp. 25. Patent Owner does not identify, nor are we aware, of any legal authority requiring dimensions in a reference to be provided at a single location in the specification. The fact that dimensions are recited in different portions of the specification does not cast doubt on the accuracy of those dimensions.

Dr. Oswald's finite element analysis suffers from several shortcomings. First, the analysis assumes the container and lid are made of polypropylene, although the reference discloses that the container is preferably made of polypropylene and the lid is made from polyethylene (a more flexible material). *See* Ex. 2001 ¶ 53-54 (relying on polypropylene for the container and lid); Ex. 1015, 2:29-34; 4:28-30¹³ (stating that the container is polypropylene and the optional lid is preferably polyethylene);

¹³ At oral hearing, Patent Owner was asked to identify support for the assertion that the container and lid are both formed of polypropylene as used by Dr. Oswald's analysis. Tr. 68. Patent Owner identified the sections of Exhibit 1015 cited here, neither of which supports Patent Owner's contention. *Id.*

Pet. Reply 5; Ex. 1027, 154:8–9 (conceding that polyethylene is more flexible than polypropylene). Second, Patent Owner takes the somewhat inconsistent position of contending that the dimensions are not accurate and then asks that we consider test results based upon a container having such dimensions. Third, Dr. Oswald presumed the lid was closed straight down, while the reference discloses that the hinge angles the cap to permit a progressive closing rather than straight down. *See* Pet. Reply 6; Ex. 1029 ¶¶ 8-10.

4. *Conclusion*

A preponderance of the evidence suggests that annular seal 74 is wider than gap 81 that it fits into when closed, so that annular seal 74 is deflected when in the closed position as called for by claim 7. Patent Owner's arguments have not persuaded us otherwise

Accordingly, we determine that Petitioner has shown by a preponderance of the evidence that claims 1 and 7 are unpatentable as anticipated by Hekal '108.

C. *Claims 2–6*

Claims 2–6 depend, directly or indirectly, from independent claim 1. Patent Owner does not present additional arguments for claims 2-6. *See* PO Resp. 19-35; 37 C.F.R. § 42.23(a).

Claim 2 depends from claim 1, and requires that the interior of the container is adapted to storing at least one moisture sensitive item. Claim 3 depends from claim 2 and requires that moisture sensitive item is a

diagnostic test strip. Petitioner explains that the interior (interior 201) of Hekal '108's container is adapted to store at least one moisture sensitive item (e.g. medications or diagnostic test strips). Pet. 20; Ex. 1008 ¶ 53.

Claim 4 depends from claim 2 and requires that the container is adapted to being opened and closed to remove at least one moisture sensitive item. Petitioner explains the Hekal '108's container is adapted to be opened and closed as called for in claim 4. Pet. 20; Ex. 1015, 1:14-15.

Claim 5 depends from claim 2 and requires that the container is adapted to keep the at least one moisture sensitive item free of moisture so that it works for its intended use. Petitioner explains that Hekal '108's container is adapted to keep the at least one moisture sensitive item free of moisture as claimed. Pet. 20-21; Ex. 1008 ¶ 53; Ex. 1015, 1:9-20.

Claim 6 requires that the container is a single piece container. Petitioner explains that Hekal'108's container (body 12) is a single piece as claimed. Pet. 21; Ex. 1015, 2:22-23; Fig. 1.

Accordingly, we determine that Petitioner has shown by a preponderance of the evidence that claims 2-6 are unpatentable as anticipated by Hekal '108.

IV. OBVIOUSNESS GROUND

Petitioner contends that claims 1-7 are unpatentable as obvious over Wheeler and one of either Hekal '108, Hekal '937, or Sacherer. *See* Pet. 15, 48-58. Specifically, Petitioner contends that Wheeler discloses a container

as called for in claims 1-7 except a desiccant. Pet. 50. According to Petitioner, adding a desiccant to Wheeler's container would have been obvious to protect the pills or medicine contained therein. Pet. 55-57; Ex. 1008 ¶¶ 83, 84. In support of the Petitioner's contention, Petitioner provides: a claim chart, an annotated figure from Wheeler (shown below), and the testimony of Neil Sheehan (Ex. 1008). Pet. 48-58.

A. Claims 1 and 7

1. Hinge

Patent Owner contends that Wheeler does not disclose a hinge as claimed because Wheeler's hinge attaches two pieces of the lid together. PO Resp. 36-38. Claim 1 recites that "the lid is attached by a hinge to the container." As explained above, claim 1 covers both direct and indirect attachment of the lid to the container. For the reasons that follow, Petitioner has demonstrated sufficiently that Wheeler discloses a hinge that indirectly attaches the lid to the container.

Petitioner contends that Wheeler's lid (cap 7') is attached by a hinge (hinge web 22) to the container (container 1'). Pet. 50; Ex. 1023, Abstract, 1:66-2:1, 4:6-7, 13-14, Figs. 7, 8. Figures 7 and 8 of Wheeler as annotated by Petitioner are reproduced below:

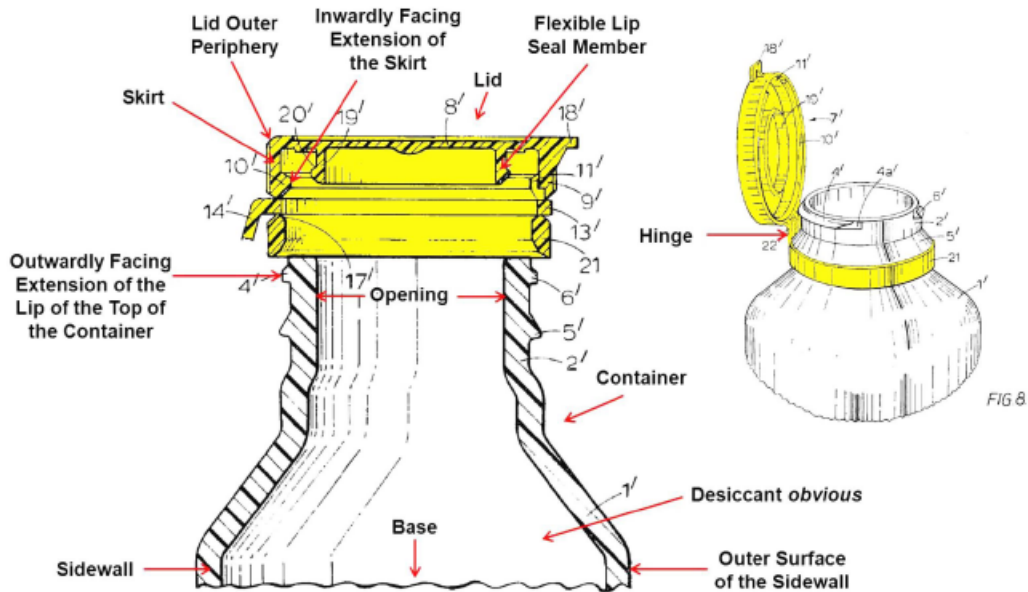


FIG. 7.

Annotated Figures 7 and 8 of Wheeler 475

Figure 7 of Wheeler is a vertical section through the upper part of a container and cap in accordance with a second embodiment before the cap is fitted to the container, and Figure 8 is the same container and cap after opening.

Indeed, Wheeler discloses that shoulder 17' retains anchor band 21 on container 1',¹⁴ and hinge web 22 connects cap 7' to anchor band 21. Ex. 1023, 3:65-4:9, Figs. 7, 8. Therefore, Wheeler's lid (cap 7') is attached by a hinge (hinge web 22) to anchor band 21, which is attached to the container (container 1'), so that lid (cap 7') is indirectly attached by a hinge (hinge web 22) to the container (container 1'). This is true even though anchor band 21 may be rotated about the neck of container 1' because

¹⁴ Figures 7 and 8 disclose an alternative embodiment utilizing the same reference numerals with indices added corresponding to the embodiment of Figures 1-6. Ex. 1023, 2:43 (identifying container 1), 3:62-65, Figs. 1-8.

shoulder 17' ensures that anchor band 21 remains permanently on the neck of container 1'. Ex. 1023, 3:6-4:1, 4:14-21; Figs. 7, 8.

2. *Flexible lip seal member*

Patent Owner argues that Wheeler's flange 19' is not a flexible lip seal as required by claims 1 and 7. PO Resp. 36-44. Specifically, Patent Owner contends that the analysis of Petitioner's expert is flawed because it assumes that Figure 7 of Wheeler is to scale when it is not. PO Resp. 39-40.

According to Patent Owner, Figure 7 is not drawn to exact specification as illustrated by the fact that the left and right sides of the container are not symmetric about an axis paralleling those sides. *Id.* at 40-41. Patent Owner contends that container and cap depicted in Figure 7 would not close as it is drawn, and lower bead 5' on the neck of container 1' would excessively deform anchor band 21 during closing.¹⁵ *Id.* at 41 (citing Ex. 2001 ¶¶ 91-92).

We agree with Patent Owner that drawings that are not to scale may not be relied upon to show particular sizes of elements depicted.¹⁶ However, Petitioner's expert, Mr. Sheehan, did not base his analysis on a

¹⁵ In context, Patent Owner's reference to elements 1 and 5 means elements 1' and 5', respectively.

¹⁶ Wheeler does not indicate that the figures are to scale. Ex. 1023, *passim*. Moreover, "it is well settled that the drawings of patent applications are not necessarily scale or working drawings..." *In re Nash*, 230 F.2d 428, 431 (CCPA 1956); *see also Hockerson-Halberstadt, Inc. v. Avia Group Int'l, Inc.*, 222 F.3d 951, 956 (Fed. Cir. 2000) (citing *In re Wright*, 569 F.2d 1124, 1127 (CCPA 1977)) ("[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.").

measurement of Wheeler's Figure 7. Rather, Mr. Sheehan illustrated with a dotted line that, when closed, sealing bead 20' of flange 19' interferes with neck 2' of container 1', causing flange 19' to deflect inward and it seal the inside surface of neck 2'. See Ex. 1008 ¶ 82 (at pages 71-72); Pet. 52 (citing to this portion of Ex. 1008); Pet. Reply 11.

Mr. Sheehan's analysis of Figure 7 is proper because drawings may be used to establish relative sizes and relationships between the various components which are clearly depicted therein, such as the relationship between flange 19 and the interior of neck 2 of container 1. See *Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1565 (Fed. Cir 1991); see also *In re Mraz*, 455 F.2d 1069, 1072 (CCPA 1972) (things that patent drawings show clearly are not disregarded); *In re Aslanian*, 590 F.2d 911, 914 (CCPA 1979) (citation omitted) (“[drawings are evaluated] ‘on the basis of what they reasonably disclose and suggest to one skilled in the art’”).

Further, Petitioner's assertion that flange 19' corresponds to a flexible lip seal member as claimed is based upon more than just Wheeler's Figure 7. *Contra* PO Resp. 39 (contending that Petitioner's entire position is based upon Figure 7 of Wheeler). Petitioner correctly notes that Wheeler discloses a substantially moisture proof container that includes a cap 7' formed of a resilient material and having internal flange 19', suggesting flange 19' is flexible and may be deflected. Pet. 49, 52; Ex. 1023, 3:4-8. Petitioner also correctly explains that Wheeler discloses that internal flange 19' with bead 20' creates a fluid-tight seal inside the mouth of neck 2' of container 1'. Pet. 49, 52 (citing Ex. 1023, 4:27-31, Figs 7, 8; Ex. 1008 ¶ 82).

Similar to the argument against the prior ground of unpatentability, Patent Owner asks us to interpret the reference as disclosing a container that cannot be closed properly and if closed, would be deformed. This contention is not supported by the reference. Wheeler does not describe container 1' as disposable or otherwise suitable for only a single use. Ex. 1023, *passim*. To the contrary, Wheeler describes a cap and container assembly for medicines that is child-proof, so that once reclosed the cap can only be removed with ease by an adult. Ex. 1023, 1:4-2:24; *see also* 3:18-45 (describing alignment that permits reopening the container). Patent Owner's contention that Wheeler's container cannot be closed or is deformed by closing is further undermined by Wheeler's express disclosure of how cap 7' is positioned when closed. Specifically, Wheeler discloses that shoulder 17' retains anchor band 21 on container 1' by engaging under lower bead 5 to retain anchor band 21 on container 1'. Ex. 1023, 3:65- 4:9, Figs. 7, 8.

A preponderance of the evidence suggests that flange 19' corresponds to a flexible lip seal member as called for in claims 1 and 7. Patent Owner's arguments have not persuaded us otherwise.

Accordingly, we determine that Petitioner has shown by a preponderance of the evidence that claims 1 and 7 are unpatentable as obvious over Wheeler and one of either Hekal '108, Hekal '937, or Sacherer.

B. Dependent claims 2-6

Claims 2-6 depend, directly or indirectly, from independent claim 1. Patent Owner does not present additional arguments for claims 2-6. *See* PO Resp. 19-35; 37 C.F.R. § 42.23(a).

Claim 2 depends from claim 1, and requires that the interior of the container is adapted to storing at least one moisture sensitive item. Claim 3 depends from claim 2 and requires that moisture sensitive item is a diagnostic test strip. Petitioner explains that the interior of Wheeler's container 1' is adapted to store at least one moisture sensitive item (e.g., pills or medicines). Pet. 53; Ex. 1023 1:4-6; Ex. 1008 ¶ 82; Ex. 1021, Abstract.

Claim 4 depends from claim 2 and requires that the container is adapted to being opened and closed to remove at least one moisture sensitive item. Petitioner explains that Wheeler's container is adapted to be opened and closed as called for in claim 4. Pet. 53; Ex. 1023, 1:4-6, 2:43-44, 3:55-57, 4:15-17, Figs. 1-6.

Claim 5 depends from claim 2 and requires that the container is adapted to keep the at least one moisture sensitive item free of moisture so that it works for its intended use. Petitioner explains that Wheeler's container is adapted to keep the at least one moisture sensitive item free of moisture as claimed. Pet. 53-54; Ex. 1008 ¶ 82.

Claim 6 requires that the container and lid assembly have a single piece container.¹⁷ Petitioner explains that Wheeler's container 1' is a single piece as claimed. Pet. 54.

Accordingly, we determine that Petitioner has shown by a preponderance of the evidence that claims 2-6 are unpatentable as obvious over Wheeler and one of either Hekal '108, Hekal '937, or Sacherer.

IV. CONCLUSION

Petitioner has met its burden of proof by a preponderance of the evidence that (1) claims 1-7 are anticipated by Hekal '108 and (2) claims 1-7 would have been obvious over Wheeler and one of either Hekal '108, Hekal '937, or Sacherer.

V. ORDER

Accordingly, it is

ORDERED that claims 1-7 of U.S. Patent 8,528,778 B2 are determined by a preponderance of the evidence to be unpatentable;

FURTHER ORDERED that because this is a final written decision of the Board under 35 U.S.C. § 318(a), parties to the proceeding seeking judicial review of the decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

¹⁷ We note that the claim requires the container, not the container and lid assembly, to be a single piece.

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Patent 8,528,778 B2

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