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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/657,906	01/24/2007	Tulsee Satish Doshi		5551

7590 02/08/2013

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EXAMINER	
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ART UNIT	**PAPER NUMBER**
1732	

MAIL DATE	DELIVERY MODE
02/08/2013	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TULSEE SATISH DOSHI

Appeal 2011-009852
Application 11/657,906
Technology Center 1700

Before PETER F. KRATZ, LINDA M. GAUDETTE, and
GEORGE C. BEST, *Administrative Patent Judges*.

Opinion for Board filed by *Administrative Patent Judge* KRATZ.

Opinion Dissenting-in-part filed by *Administrative Patent Judge* BEST.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's second or subsequent rejection of claims 1-7, 16, 17, and 19-27. We have jurisdiction pursuant to 35 U.S.C. § 6.

The appealed subject matter is directed to a battery that includes a thermal energy transfer element in addition to an anode, a cathode and an electrolyte, and wherein a first portion of a thermally conductive core of the thermal transfer element is included within a container with a portion thereof in direct contact with the electrolyte within the container, the electrolyte also being in direct contact with the anode and cathode. A second portion of the thermally conductive core is located external to the container. The cell container may serve as an electrode (Spec. ¶ 0022). According to Appellant, the disclosed subject matter includes batteries with structures for transferring thermal energy to and from the battery; however, the electrochemical, oxidation-reduction reactions that occur are typically exothermic (*id.* at ¶¶ 0002 and 0003).

As Appellant explains, the thermally conductive transfer element is a structure that can be arranged or placed such that at least a portion of a core thereof is in direct contact with the electrolyte of the battery and another core portion thereof is designed to be placed in an environment external to the battery cell so as to provide for thermal conduction between the battery and another portion to maintain the battery temperature within a desired temperature range during storage, use, and recharging (*id.* at ¶¶ 0004-0007, 0022-0024, and 0027; Figs. 1-3). An alleged advantage of the disclosed invention is said to be derived by providing a thermal transfer element with a thermally conductive core portion within the container or cell in a non-proximate (distinct) relation relative to the anode and cathode provided therein (*id.* at ¶¶ 0021 and 0028).

As expressly stated in the Brief, "Appellant appeals the rejection of claims 1-7, 16-17, and 19-27 under U.S.C. § 103(a)" (Br. 3). Appealed

claims 1 and 16, the only independent claims on appeal (Br. 5 and 20-23; Appendix A), are reproduced below (emphasis added):

> 1. A battery, comprising:
>
> an anode, a cathode, and a container;
>
> *a thermal energy transfer element distinct from the anode and cathode,* and *including a thermally conductive core having a first portion located within the container* and a second portion located external to the container;
>
> *an electrolyte within the container in direct contact with* at least a part of *the first portion of the thermally conductive core, the anode, and the cathode,*
>
> wherein the first portion provides a path for conducting thermal energy between the electrolyte and the second portion.
>
> 16. A battery comprising:
>
> at least one cell container having bottom and side walls, containing an electrolyte, and serving as a first electrode;
>
> a second electrode having a first portion embedded in the electrolyte and a second portion located external to the electrolyte; and
>
> *at least one thermal energy transfer element spaced away from the second electrode and the bottom and side walls of the cell container, the thermal energy transfer element including a thermally conductive core having a first portion located within the cell container and in direct contact with and surrounded by the electrolyte,* and a second portion located external to the cell container.

The Examiner maintains several grounds of rejection under 35 U.S.C.

§ 103(a) pertaining to the appealed claims utilizing Nilsson[1] or Nemoto[2] as prior art in base obviousness rejections that pertain, *inter alia*, to independent claim 1 and a combination of Janmey[3] in view of Gross[4] in a base obviousness rejection pertaining to independent claim 16 (Ans. 4-8 and 11-12). Additional prior art is applied by the Examiner in separate rejections of certain dependent claims for allegedly teaching additional features set forth in the so rejected dependent claims (*id.* at 8-20).[5] In particular, the Examiner applies the prior art in maintaining the several grounds of rejection of the appealed claims under 35 U.S.C. § 103(a) as follows (Ans. 4-20)[6]:

Claims 1 and 7 as being unpatentable over Nilsson;

Claims 1 and 5-7 as being unpatentable over Nemoto;

Claim 2 as being unpatentable over Nemoto in view of Dansui[7];

Claim 3 as being unpatentable over Nemoto in view of Knox-Holmes[8] and Alford[9];

Claim 4 as being unpatentable over Nemoto in view of Knox-Holmes,

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[1] WO 89/10011, published Oct. 19, 1989.
[2] US 6,767,666 B2, issued July 27, 2004.
[3] US 6,936,079 B2, issued Aug. 30, 2005.
[4] US 4,329,407, issued May 11, 1982.
[5] No new grounds of rejection have been identified by the Examiner (Ans. 3, ll. 1-2; *see generally* Ans.).
[6] The Application file record reflects that Appellant did not challenge (petition) the Examiner's separate presentation of the obviousness rejections of dependent claims 21 and 27 in the Answer as being new grounds of rejection. In this regard, the Examiner employed the same prior art in the obviousness rejection of these dependent claims as relied upon in the non-final Office action appealed from (NOA, pp. 13 and14).
[7] US 6,692,864 B1, issued Feb. 17, 2004.
[8] US 2005/0016904 A1, published Jan. 27, 2005.
[9] US 2004/0020218 A1, published Feb. 05, 2004.

Alford, and Dansui;

Claim 16 as being unpatentable over Janmey in view of Gross;

Claim 17 as being unpatentable over Janmey in view of Gross and Dansui;

Claim 19 as being unpatentable over Janmey in view of Gross, Knox-Holmes and Alford;

Claims 20 and 22 as being unpatentable over Janmey in view of Gross and Knox-Holmes;

Claim 21 as being unpatentable over Janmey in view of Gross, Knox-Holmes, and Tailor[10];

Claims 23-26 as being unpatentable over Janmey in view of Gross and Van Dyke[11]; and

Claim 27 as being unpatentable over Janmey in view of Gross and Dansui.

We reverse the stated rejections.

At the outset, we observe that Appellant limits the arguments against the Examiner's prima facie obviousness position as to all of the rejected appealed claims to arguments that oppose the Examiner's bases for determining that claims 1 and 16 would have been obvious as set forth in the base rejections as they pertain to independent claims 1 and 16 (Br. 5-20). In this regard, the Examiner relies on the additional prior art cited against certain dependent claims for additional features set forth in the several dependent claims, not for bolstering the Examiner's obviousness position laid out in the several base rejections as to the subject matter required by

[10] US 4,472,468, issued Sept. 18, 1984.
[11] US 4,684,589, issued Aug. 04, 1987.

either of the independent claims (Ans. 8-20).

In particular, Appellant argues that there are shortcomings in the Examiner's prima facie bases for rejecting the independent claims for reasons presented in the Appeal Brief under three specifically identified issues, which contested issues are clearly set forth by Appellant as being applicable to the Examiner's alleged failure to carry the burden of establishing a prima facie case of non-patentability (obviousness) for all of the rejected appealed claims (Br. 5). [12]

Accordingly, the arguments set forth by Appellant respecting the rejection of the independent claims require our corresponding consideration in determining the merits of the Examiner's obviousness position with

[12] Contrary to our dissenting colleague's opinion, there is no ambiguity as to the issues raised on appeal as they relate and apply to all of the rejected appealed claims, including the separately rejected dependent claims. These dependent claims are included in a list of contested rejected claims provided at the beginning of the list of issues argued by Appellant under the caption "**F. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**" (Br. 5). Thus, Appellant contests all of the rejected claims based on an asserted failure of the Examiner to meet the burden to establish a prima facie case of non-patentability sufficient to teach or suggest the base subject matter found in independent claims 1 and/or 16 (Br. 5). Of course, Appellant has waived, for purposes of this appeal, any arguments with respect to the Examiner's maintained rejections as they apply to the dependent claims that were not made in the Appeal Brief, such as any arguments asserting non-obviousness due to the additional features set forth in the dependent claims. However, Appellant, per force, has not waived arguments that are clearly expressed in the Appeal Brief as to the asserted failure of the Examiner to present a prima facie case of obviousness as to all of the rejected claims based on the Examiner's expressly argued failure to establish, prima facie, the obviousness of the subject matter of the independent claims 1 and 16 (Br. 5-20).

respect to all of the appealed dependent claims because these latter claims include the subject matter of the claims from which they depend and are argued on the basis of the contested features of the independent claims (*id.*). After all, the separate obviousness rejections of the several dependent claims are built upon the foundation of the Examiner's obviousness position as to the independent claims.

It follows that, on this appeal record, our resolution of the contested base rejections as to the independent claims is dispositive of the Examiner's stated obviousness rejections pertaining to all of the rejected claims on appeal (*id.* at 3 and 5-20).

Claims 1-7

Concerning the obviousness rejection of claim 1 over Nilsson, the Examiner appears to have misconstrued the subject matter required by claim 1 and/or overstated the teachings of Nilsson. In this regard, claim 1 requires a battery comprising, *inter alia*, an anode, a cathode, and a "thermal energy transfer element" that includes a thermally conductive core, wherein the transfer element is "*distinct from the anode and cathode*" (emphasis added) and further wherein an electrolyte within a container of the battery is in direct contact with the anode, the cathode, and at least a part of a first portion of the thermally conductive core of the transfer element that is located within the container.

In other words, claim 1, as properly construed, requires that the transfer element is distinct from (arranged or located separate or disjoined from) the anode and cathode for contact with the electrolyte such that its core (first portion) is in direct contact with the electrolyte to provide a

separate thermal pathway. Claim 1 requires that the direct contact of the electrolyte with a transfer element core first portion provides "a path for conducting thermal energy between the electrolyte and the second portion"; that is, a path in addition to and distinct from thermal transfer due to the separate direct contact of the electrolyte with the anode and with the cathode.

This interpretation is the broadest reasonable construction of claim 1 as regards the afore-discussed claim language when claim 1 is read as a whole and as it would be understood by one of ordinary skill in the art when read in light of the subject Specification. In this regard, the Specification describes the thermal energy transfer element as being placed within the cell of a battery, where it is in direct contact with and surrounded by the electrolyte (Spec. ¶ 0006, *see also id.* ¶¶ 0007, 0008, 0021, and 0027). The Specification explains that using thermal energy transfer elements that are not proximate to or spaced apart from the anode and cathode has the advantage of placing some or most of the electrolyte that is distant from the container walls and the electrodes close to a thermal transfer element (*id.* at ¶¶ 0021, 0028 and 0029). This improves the transfer of energy to and from the electrolyte in the cell (*id.*). Furthermore, every embodiment described in the Specification has one or more thermal energy transfer elements that are spaced apart from the anode and cathode of the battery (*see id.* at ¶¶ 0023, 0032-0039; Figs. 2-10).

We determine the term "distinct from" as used in claim 1 when claim 1 is read as a whole and given it its broadest reasonable construction in light of the subject Specification requires that the thermal energy transfer element is separate from or disengaged from the cathode and the anode in a manner so as to furnish a distinct or separate thermal pathway that includes direct

contact with the electrolyte apart from or independent of the anode and cathode structures and the electrolyte direct contacts with the anode and the cathode structures. After all, during examination, "claims . . . are to be given their broadest reasonable interpretation consistent with the specification, and . . . claim language should be read in light of the specification as it would be interpreted by one of ordinary skill in the art." *In re Am. Acad. of Sci. Tech. Ctr.*, 367 F.3d 1359, 1364 (Fed. Cir. 2004) (quoting *In re Bond*, 910 F.2d 831, 833 (Fed. Cir. 1990)).

Nilsson discloses an electrochemical battery such as a lead acid battery (Nilsson 1-2). However, Nilsson's battery includes heat transferring bodies arranged along a plane of symmetry located within the battery's electrodes (*id.* at 5-6). An embodiment of the structure described in Nilsson is shown in Figure 4B thereof. As shown in the figure, heat transferring body **7** is the core of an electrode assembly. Heat transferring body **7** is interleaved between and soldered to two electrode plates **13** (*id.* at 8). The heat transferring body **7** is provided with a lug **9** that can be attached to a collection strap 8 and post 10 (*id.* at Fig. 2). The post passes through the battery's lid and is provided with a cooling flange (*id.*).

Appellant argues that Nilsson does not disclose or suggest a "thermal energy transfer element" that is distinct from "the anode and cathode" and that the Examiner has not established that Nilsson provides an arrangement wherein an electrolyte within the container is in direct contact with the heat conducting body (Br. 8 and 9).

The Examiner responds to this contention by stating that

> Nilsson explicitly recites the battery components labeled as positive electrode, negative electrode and thermally conductive core. In the disclosure (WO 89/10011), Nilsson clearly teaches the functionality of positive electrode, negative electrode and

> thermally conductive core. Since the parts are clearly separately labeled, have different structure and perform separate functions, it would have been obvious to a person of ordinary skill in the art at the time of invention that the parts are distinct.

(Ans. 20).

In addition, the Examiner conclusively asserts that the heat conducting body of Nilsson would be expected to be in contact with the electrolyte because the electrode of Nilsson is in direct contact with the electrolyte (*id.* at 21).

Our review of this rebuttal argument indicates that the Examiner has either applied an erroneous construction of the claim term "distinct from" or has erroneously attributed unsupported teachings to Nilsson.

It is our judgment that, on this record, the Examiner has not carried the burden to reasonably establish that heat transferring body **7** of Nilsson discloses or suggests a thermal transfer element that is distinct (separate or disjoined) from the anode and cathode, within the meaning required by claim 1. In this regard, Figure 4A of Nilsson as referred to by the Examiner shows that the heat conducting body/plate **7** is sandwiched or interleaved between negative electrodes **13** and soldered thereto. Moreover, the Examiner has not established that Nilsson's battery arrangement includes electrolyte within a container which electrolyte is in direct contact with a part of a first portion of the heat transferring body within the container, which electrolyte is also in direct contact with an anode and cathode, and which latter structures and contacts are each distinct or separate from the heat transferring body and its direct contact with the electrolyte, as required by claim 1.

The Examiner has not otherwise established that Nilsson would have suggested the subject matter embraced by claim 1.

In light of the above, we reverse the Examiner's obviousness rejection of claim 1 and dependent claim 7 over Nilsson.

Concerning the Examiner's obviousness rejection of claim 1 over Nemoto, Appellant argues that the Examiner has not established that Nemoto discloses or suggests a "thermal energy transfer element" that is distinct from the anode and cathode, which element comprises "a first portion located within the container and *a second portion located external to the container*" as required by the claim's language (Br. 9-15; Claim 1 (emphasis added)). In this regard, Nemoto describes a lithium secondary cell that comprises an anode and a cathode that are wound or laminated together with a separator sheet between them (Nemoto Abstract).

As shown in Figure 1 of Nemoto, the anode, cathode, and separator (collectively **1**; Fig. 4) are tightly wound around the outer wall of aluminum core **13** (Nemoto col. 3, ll. 12-26; col. 5, ll. 32-34). The external terminals **16A** and **16B** of the cell are cooled by cooling means **28** (*id*. at col. 6, ll. 7-21). Nemoto states: "In the case of the center axis direction of the cell, heat produced inside this lithium secondary cell is dissipated from the surface of the cell through the electric current path" (*id.* at col. 5, ll. 46-48). In other words, Nemoto describes the heat being dissipated through the anode and cathode.

The Examiner has not established that Nemoto teaches or suggests that aluminum core **13** is attached to structure that extends outside the battery container in a manner that can be used to dissipate heat and which are parts of a thermal energy transfer element that is distinct from the anode and cathode structures.

Consequently, we reverse the Examiner's rejection of claim 1 and dependent claims 5-7 as obvious over Nemoto.

The Examiner does not rely on the teachings of the additionally applied references employed in the separate rejections of dependent claims 2-4 to address the limitations incorporated into these claims by virtue of their dependency on claim 1.

It follows that we reverse the Examiner's separate obviousness rejections of dependent claims 2-4, relying on Nemoto as the primary reference, for the reasons argued by Appellant with respect to independent claim 1.

Claims 16, 17, and 19-27

Turning to independent claim 16, the Examiner relies on the combined teachings of Janmey and Gross in maintaining the stated obviousness rejection employing Gross for allegedly teaching a thermal energy transport element corresponding to that claimed, which, according to the Examiner, would have been obvious for one of ordinary skill in the art to employ in the battery of Janmey (Ans. 11-12).

In this regard, claim 16 requires that the first portion of the thermal energy transfer element's thermally conductive core meet three conditions: (1) located in the cell container, (2) in direct contact with the electrolyte, and (3) surrounded by the electrolyte (Claim 16).

Appellant argues that the Examiner has not established that the heat exchangers of Gross satisfy the three above-identified limitations required for the claimed thermal energy transport element (Br. 19).

In response to Appellant's arguments, the Examiner maintains that Gross's "heat transfer elements as shown in Figures 1, 2, 3, 4, 5 and 6 are direct in contact with the electrolyte and the battery element" (Ans. 26).

As the description of Figure 1 makes clear, however, Gross does not describe heat exchanger **20** as having any portion that is located within the container of cell **12**. Instead, each cell **12** has a portion of a heat exchanger that is associated with the cell and is located in interspace **14** (Gross col. 6, l. 62-col. 7, l. 9 (discussing Figure 3)). The heat exchanger functions to thermally connect the zone of interspace **14** to outside atmosphere **36** (*id.*).

The Examiner erred in finding that Gross describes a thermal energy transfer element that includes a first portion that is inside the cell container, in direct contact with the cell's electrolyte, and surrounded by the electrolyte.

It follows that we reverse the Examiner's rejection of claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Janmey in view of Gross.

The Examiner does not rely on the teachings of the additionally applied references employed in the separate obviousness rejections of dependent claims 17, and 19-27 to cure the deficiencies in the base rejection of independent claim 16.

As a consequence, we also reverse the Examiner's separate obviousness rejections of dependent claims 17, and 19-27 that rely on a combination of Janmey and Gross to teach or suggest the incorporated features of independent claim 16 for the reasons argued by Appellant with respect to claim16.

ORDER

The Examiner's decision to reject the appealed claims 1-7, 16, 17, and 19-27 under 35 U.S.C. § 103(a) is reversed.

REVERSED

bar

BEST, *Administrative Patent Judge*, Dissenting-in-Part.

I agree with my colleagues that the Examiner erred in rejecting claims 1 and 16 of the ’906 application. I therefore join those portions of the opinion reversing the Examiner’s rejections of those claims. But I disagree with the panel majority’s decision to reverse the rejections of the dependent claims. The majority finds that Appellant has presented every ground of rejection set forth in the June 23, 2010 Office Action to us for our review and has argued that the Examiner has failed to establish a prima facie case that each of the dependent claims is unpatentable (Maj. Op. 5-6). The majority’s findings apparently are based on a single, conclusory sentence in Appellant’s statement of the grounds of rejection presented for review (*id.*). In reaching this conclusion, the panel majority allows Appellant to ignore our rules regarding the content and organization of briefs and infers what Appellant’s unstated argument must have been. I respectfully dissent from these holdings.

At the time that the Appeal Brief was filed, our rules required Appellant to provide “[a] concise statement of *each* ground of rejection *presented for review*.” 37 C.F.R. § 41.37(c)(1)(vi) (2010) (emphasis added). Appellant also was required to present “[t]he contentions of appellant *with respect to each ground of rejection presented for review* in paragraph (c)(1)(vi) of this section, and the basis therefor, with citations of the statutes, regulations, authorities, and parts of the record relied on. . . . Each *ground of rejection* must be treated under a separate heading.” 37 C.F.R. § 41.37(c)(1)(vii) (2010) (emphasis added).

The Federal Circuit has explained that a ground of rejection “is not merely the statutory requirement for patentability that a claim fails to meet

but also the precise reason why the claim fails that requirement." *Hyatt v. Dudas*, 551 F.3d 1307, 1312 (Fed. Cir. 2008) (discussing predecessor to 37 C.F.R. § 41.37(c)(1)(vii)). Thus, when claims are rejected under § 103(a) as obvious over different combinations of references, they are subject to different grounds of rejection. *Id.* (discussing *In re McDaniel*, 293 F.3d 1379, 1384-85 (Fed. Cir. 2002)).

Here, the Examiner properly identified each separate ground of rejection. In all, the Examiner asserted *ten* different grounds of rejection against the '906 application's claims (*e.g.*, Office Action 4, 5, 6 (June 23, 2010)).[1]

Appellant's Brief, however, only identifies parts of *three* of these grounds of rejection as being presented for review. The relevant section of Appellant's Brief is reproduced below, in its entirety:

> **F. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**
>
> The issues in this appeal relate to whether the Examiner has met his burden of establishing a *prima facie* case sufficient to establish that Appellant's Claims 1-7, 16-17, and 19-27 are unpatentable, specifically:
>
> ***1.*** Whether the Examiner has met his burden to show that Claim 1 is obvious over Nilsson?
>
> ***2.*** Whether the Examiner has met his burden to show that Claim 1 is obvious over Nemoto?

[1] The panel opinion reproduces the 12 grounds of rejection set forth in the Examiner's Answer (Maj. Op. 4-5). The difference in number is due to the Examiner's entry of two new grounds of rejection in the Answer. For the purposes of this dissent, the differences between the two sets of grounds for rejection are not material.

> ***3.*** Whether the Examiner has met his burden to show that Claim 16 is obvious over Janmey in view of Gross?

(App. Br. 5 (emphasis in original)).

As can be seen, Appellant's Brief does not contain any indication that Appellant wants to appeal the Examiner's stated grounds of rejection for claims 2-4, 17, and 19-24 (*compare* Ans. 8, 9, 10, 12, 13, 15, 16, 17, 18 *with* App. Br. 5). Furthermore, Appellant's Brief omits claims 5-7 from the descriptions of grounds of rejection specifically identified as being appealed with respect to claim 1 (*compare* Ans. 4 and 6 *with* App. Br. 5).[2]

The Argument section of Appellant's brief likewise is silent as to the grounds of rejection asserted against claims 2-4, 17, and 19-24. It also does not mention claims 5-7 in its discussion of the grounds of rejection asserted against claim 1. Indeed, only claims 1 and 16 are mentioned at all in Appellant's Argument section. Furthermore, the only relief Appellant expressly requests is that claims 1 and 16 "be held allowable and that Notice of Allowance be issued" (App. Br. 9, 15, 20). In sum, Appellant's argument section only includes Appellant's contentions regarding the independent claims and the three grounds of rejection identified in accordance with 37 C.F.R. § 41.37(c)(1)(iv).

Appellant, therefore, *failed even to present for review* any ground of rejection of the dependent claims and *failed to provide any argument, reason, or authority* explaining why the unpresented grounds of rejection

[2] I further note that the Status of Claims section of Appellant's brief only discusses the Examiner's rejections of claims 1 and 16. Although such discussion is not required, *see* 37 C.F.R. § 41.37(c)(1)(iii) (2010), it further suggests that Appellant's appeal is only focused upon the independent claims.

should be reversed. In view of these manifest failures, I would affirm the Examiner's rejections of claims 2-7, 17, and 19-24.

Rather than simply applying our rules, the panel majority improperly infers what it thinks Appellant's unstated arguments would have been. In particular, the panel majority states that Appellant has (1) identified the "contested issues" raised on appeal and (2) clearly stated that these contested issues are applicable to the Examiner's alleged failure to carry the burden of establishing a prima facie case of non-patentability (obviousness) for all of the rejected appealed claims (Maj. Op. 5-6 (citing Br. 5)). The panel majority then states that "[Appellant's] arguments . . . respecting the rejection of the independent claims *require* our corresponding consideration in determining the merits of the Examiner's obviousness position with respect to all of the appealed dependent claims" (Maj. Op. 6-7 (citing App. Br. 5) (emphasis added)). I cannot join these findings for several reasons.

First, our rules require the appellant to state each *ground of rejection* presented for review. Thus, our rules are unlike the Federal Rules of Appellate Procedure, which merely require identification of the *issues* presented for review. *Compare* 37 C.F.R. § 41.37(c)(1)(vi) *with* Fed. R. App. P. 28(a)(5). By requiring an appellant to state the grounds of rejection presented for review, our rules impose a higher burden than that imposed by the Courts of Appeal. There can be no argument that Appellant failed to meet this burden and therefore failed to present seven grounds of rejection to us for our review. We should not excuse Appellant's failure to comply with 37 C.F.R. §§ 41.37(c)(1)(vi) and 41.37(c)(1)(vii).

Our rules impose this higher burden to prevent ambiguity as to the claims and grounds of rejection that are the subject of the appeal. Clarity regarding the precise subject of an appeal is important for at least two

reasons. *First*, the Board needs to know the precise subject of the appeal so that we are not left guessing what Appellant intended to argue or upon which facts Appellant relies. *Second*, the Examiner needs to know which grounds of rejection must be addressed in the Examiner's Answer. In this case, the Examiner had no notice that the rejections of the dependent claims were even going to be reviewed, let alone Appellant's arguments for reversing the Examiner's rejections. Examiners should not be required to try to anticipate what a panel may decide to argue on behalf of an Appellant who files a brief that does not expressly argue for reversal of a particular ground of rejection.

Second, the majority is assuming that Appellant correctly identified the claims on appeal and erred by failing to provide any argument in support of reversing the unpresented grounds of rejection. It also might be that Appellant decided not to include any argument regarding the dependent claims and erred by identifying them being the subject of appeal. Once again, the majority is attempting to read Appellant's mind. This is a road we should not begin to go down.

Third, I cannot join the majority's conclusion that we are *required* to reverse the unpresented grounds of rejection. We are not required to hunt through the record on appeal seeking facts that support an appellant's position, *cf. Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340, 1351 (Fed. Cir. 2000) (refusing to search record to discover evidence in support of appellant's arguments). Neither are we required to infer an appellant's intended arguments from an inadequate brief. "Judges are not like pigs, hunting for truffles buried in the briefs." *U.S. v. Dunkel*, 927 F.2d 955, 956 (7th Cir. 1991). It is Appellant's responsibility to provide the Board with argument, facts, and reasoning sufficient to justify reversing the Examiner. *Cf. OSRAM Sylvania, Inc. v. Am. Induction Techs., Inc.*, 701 F.3d 698, 707

(Fed. Cir. 2012). The requirement that appellant provide sufficient reasoning applies with equal force to issues of law and issues of fact. *See Nazomi Commc'ns, Inc. v. Arm Holdings, PLC*, 403 F.3d 1364, 1371 (Fed. Cir. 2005). Where, as here, an appellant fails to present any argument with respect to a particular ground of rejection, we are not required to—and we should not, as a prudential matter—conduct such an analysis in the first instance. In this case, the majority's guess as to what Appellant intended to argue regarding the unpresented grounds of rejection very likely is correct. Other cases will not be so easy.

In view of Appellant's manifest failure to present and to argue for reversal of Examiner's grounds of rejection of the dependent claims, I would hold that Appellant had waived any arguments for reversal of the dependent claims. *See Hyatt*, 551 F.3d at 1314 (holding that the Board may find waiver when an appellant fails to contest a ground of rejection). Accordingly, I would summarily affirm the Examiner's rejections of claims 2-7, 17, and 19-24.