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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte IAN MILLARD

Appeal 2024-002880
Application 16/852,175
Technology Center 1700

Before JEFFREY T. SMITH, BEVERLY A. FRANKLIN, and
JEFFREY R. SNAY, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner’s decision to reject claims 1, 4–6, 21–23, and 25–32. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ “Appellant” refers to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Ubiquitous Energy, Inc. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The claims are directed to methods and systems for insulated glass units with electrical connection to internal solar panels. Claim 1, reproduced below, illustrates the claimed subject matter:

1. An insulated glass unit (IGU) including:
 - a first glass lite;
 - a transparent solar cell formed on the first glass lite, wherein the transparent solar cell includes one or more busbars;
 - a spacer frame joined to the first glass lite and including a corner key integrated electrical connection unit;
 - an electrical conductor passing through the corner key integrated electrical connection unit, wherein:
 - the electrical conductor includes a molded cable and an electrical connector joined at a bonding location enclosed within the corner key integrated electrical connection unit; and
 - the electrical conductor is electrically connected to one of the one or more busbars; and
 - a second glass lite joined to the spacer frame.

REFERENCES

The Examiner relies on the following references to reject the claims:

Name	Reference	Date
Chubb	US 2011/0248014 A1	Oct. 13, 2011
Brown	US 2014/0349497 A1	Nov. 27, 2014
Hammond	US 2017/0317305 A1	Nov. 2, 2017
Rozbicki	US 2018/0301578 A1	Oct. 18, 2018
Plummer	US 2018/0337630 A1	Nov. 22, 2018
McNeil	US 2020/0301234 A1	Sept. 24, 2020
Nagao	JP 2006165172 A	June 22, 2006

REJECTIONS

The Examiner maintains the following rejections:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis
25	112	Written Description
25	112	Indefiniteness
1, 26–31	103	Hammond, Chubb, Brown
4	103	Hammond, Chubb, Brown, McNeil,
5	103	Hammond, Chubb, Brown, McNeil, Plummer, and Rozbicki
6, 21, 32	103	Hammond, Chubb, Brown, Nagao
22	103	Hammond, Chubb, Brown, Nagao, McNeil,
23	103	Hammond, Chubb, Brown, Nagao, McNeil, Plummer, and Rozbicki

OPINION

Rejections under 35 USC § 112 (a) and (b)

The Examiner finally rejected claim 25 under 35 USC § 112 (a) and (b) as lacking written descriptive support in the Specification and as indefinite. (Final Act. 2–4.) Appellant does not identify these rejections as being appealed and presents no argument for their reversal. Accordingly, we summarily affirm the rejections. *See Hyatt v. Dudas*, 551 F.3d 1307, 1314 (Fed. Cir. 2008) (explaining that summary affirmance without consideration of the substantive merits is appropriate where an appellant fails to contest a ground of rejection).

Rejections under 35 U.S.C. § 103

We review the appealed rejections for error based upon the issues Appellant identifies, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential), (*cited with approval in In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the examiner’s rejections.”). Upon review of the evidence and each of the respective positions set forth in the record, we find that the preponderance of evidence supports the Examiner’s position that the claims are obvious under 35 U.S.C. § 103 over the cited references.

After weighing of the respective positions Appellant presents in the Appeal Brief and the Examiner provides in the Final Office Action and the Answer, we affirm the Examiner’s rejections of claims 1, 4–6, 21–23, and 25–32 under 35 U.S.C. § 103 essentially for the reasons the Examiner presents. We add the following for emphasis.

Appellant argues Hammond, Chubb, and Brown do not disclose or suggest “an electrical conductor passing through the corner key integrated electrical connection unit, wherein: the electrical conductor includes a molded cable and an electrical connector ***joined at a bonding location enclosed within the corner key integrated electrical connection unit***,” as recited in claim 1. (Appeal Br. 15.)

Appellant argues Chubb fails to teach the electrical conductor includes a molded cable and an electrical connector or joined at a bonding location enclosed within the corner key integrated electrical connection unit as required by the claimed invention. (Appeal Br. 14–15.) Appellant argues Chubb teaches “the electrical connector 41 and wire lead 44 that are

detachably coupled to each other, whereas the molded cable and the electrical connector of the pending Application are **permanently bonded** with each other at a bonding location. (Appeal Br. 13.)

Appellant's arguments are not persuasive of reversible error. As noted by the Examiner, the Specification does not require the bond to be permanent. (Ans. 3.) The Specification states "the molded cables and the electrical connectors are electrically bonded, for example, using a solder bond." (Spec. ¶ 20.) The claim also does not require the molded cable and electrical connector to be permanently bonded, the claim only requires joining the molded cable and an electrical connector at a bonding location. Chubb discloses the wire lead and the electrical connector are in electrical contact with one another (Chubb ¶ 60.) The Examiner finds Chubb discloses crimp electrical connectors for connecting the wire lead. (Ans. 4, Chubb ¶ 15.)

Appellant further argues that Chubb is non-analogous art because the insulating glass unit of Chubb is employed for use in refrigerated cabinets including heating film and different from the field of insulated glass units including solar panels. (Appeal Br. 16.)

A reference qualifies as prior art for an obviousness determination when it is analogous to the claimed invention. *Innovation Toys, LLC. v. MGA Ent., Inc.*, 637 F.3d 1314, 1321 (Fed. Cir. 2011). "Two separate tests define the scope of analogous art: (1) whether the art is from the same field of endeavor, regardless of the problem addressed, and (2) if the reference is not within the field of the inventor's endeavor, whether the reference still is reasonably pertinent to the particular problem with which the inventor is involved." *In re Bigio*, 381 F.3d 1320, 1325 (Fed. Cir. 2004). The "field of

endeavor” test asks if the structure and function of the prior art is such that it would be considered by a person of ordinary skill in the art because of similarity to the structure and function of the claimed invention as disclosed in the application. *Id.* at 1325–26. “A reference is reasonably pertinent if, . . . it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem.” *In re Clay*, 966 F.2d 656, 659 (Fed. Cir. 1992). “If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection.” *Id.* Whether a prior art reference is “analogous” is a question of fact. *Id.* at 658.

Chubb describes a corner key assembly of an insulating glass unit. (Chubb, Abstract and ¶ 2). Chubb is analogous art because the reference is from the same field of endeavor related to insulated glass units, where the electrical connections utilize a corner key assembly that allows the use of highly automated manufacturing equipment for making IG units (Chubb ¶¶ 24, 25.) The use of a corner key allows the attachment of wire leads after the essentially complete assembly of the insulating glass unit without having wire leads interfering with the assembly or transport process. Thus, Chubb constitutes analogous art that falls within the scope and content of the prior art for purposes of the Examiner's obviousness analysis.

Appellant's arguments addressing Brown and Nagao are not persuasive. Appellant's arguments do not address the reasons the Examiner cited these references. (Appeal Br. 16–17.) Accordingly, Appellant has not persuasively identified error in the Examiner's position. *See In re Lovin*, 652 F.3d 1349, 1357 (Fed. Cir. 2011).

Regarding the separate rejections of claims 4, 5, 6, 21–23, and 32 under 35 U.S.C. § 103, we affirm these rejections advanced by the Examiner. Appellant has only presented arguments as to independent claim 1 and dependent claims 26–31 (discussed above) and have not otherwise presented separate arguments on the merits for claims 4, 5, 6, 21–23, and 32. In this regard, Appellant does not assert non-obviousness based on the additional limitations set forth in claims 4, 5, 6, 21–23, and 32 and therefore has failed to establish the obviousness of the additional features recited in these separately rejected claims. Because we do not find Appellant’s arguments persuasive as to independent claim 1, it follows that these arguments are unpersuasive as to claims 4, 5, 6, 21–23, and 32.

CONCLUSION

The Examiner’s rejections are **AFFIRMED**.

DECISION SUMMARY

The following table summarizes our decision:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
25	112	Written Description	25	
25	112	Indefiniteness	25	
1, 26–31	103	Hammond, Chubb, Brown	1, 26–31	
4	103	Hammond, Chubb, Brown, McNeil	4	
5	103	Hammond, Chubb, Brown, McNeil, Plummer, Rozbicki	5	
6, 21, 32	103	Hammond, Chubb, Brown, Nagao	6, 21, 32	
22	103	Hammond, Chubb, Brown, Nagao, McNeil	22	
23	103	Hammond, Chubb, Brown, Nagao, McNeil, Plummer, Rozbicki	23	
Overall Outcome			1, 4–6, 21– 23, 25–32	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED