



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
14/644,855	03/11/2015	Toshio Tetsuka	SIC-11-018-2	6602
29863	7590	01/17/2020	EXAMINER	
DELAND LAW OFFICE			STORMER, RUSSELL D	
P.O. BOX 69			ART UNIT	PAPER NUMBER
KLAMATH RIVER, CA 96050-0069			3993	
			NOTIFICATION DATE	DELIVERY MODE
			01/17/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

bdeland1992@gmail.com
jdeland@sisqtel.net

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte TOSHIO TETSUKA

Appeal 2019-006235
Reissue Application 14/644,855
Patent 8,833,182
Technology Center 3900

BEFORE ALLEN R. MACDONALD, ERIC B. CHEN, and
JENNIFER L. McKEOWN, *Administrative Patent Judges*.

McKEOWN, *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, 3, 5, 6, 8–20, 22–25, 28–32 and 34–42 in the application for reissue of U.S. Patent 8,833,182. The Examiner indicated that claims 26, 27, and 33 are allowable. We have jurisdiction under 35 U.S.C. § 6(b).

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

We AFFIRM-IN-PART.

CLAIMED SUBJECT MATTER

The claims are directed to “bicycles and, more particularly, to various features of a bicycle input force processing apparatus.” Spec., col. 1, ll. 6–8.

Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A bicycle crank arm apparatus comprising:
 - a crank arm having a crank axle mounting portion and a pedal mounting portion; [and]
 - a circuit-mounting structure disposed between the crank axle mounting portion and the pedal mounting portion, wherein the circuit-mounting structure is configured to detachably mount a measurement board having a sensor mounted thereon for measuring an input force applied to the measurement board by the crank arm;
 - an electrical connector disposed at the circuit-mounting structure, wherein the electrical connector is configured to detachably connect to another electrical connector; and
 - electrical wiring attached to the electrical connector;
 - wherein the electrical connector is mounted to the crank arm so that the electrical connector remains at the crank arm when the measurement board is absent from the crank arm.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Videon	US 3,780,817	Dec. 25, 1973
Phillips	US 7,806,006 B2	Oct. 5, 2010
Longman	WO 2011/063468 A1	June 3, 2011

OBJECTIONS/REJECTIONS

The Examiner objected to the drawings under 37 C.F.R. 1.83(a) as failing to show the subject matter as claimed. Final Act. 2.

The Examiner objected to the Specification under 37 C.F.R. 1.75(d)(1) for lack of proper antecedent basis for the claimed subject matter. Final Act. 2–3.

The Examiner rejected claims 3, 5, 6, 14, 15, 22, 36, and 38 under 35 U.S.C. 112(a) as failing to provide sufficient written description support. Appeal Br. 3–7.

The Examiner rejected claims 1, 3, 5, 6, 8, 10–20, 22–25, 28–32, and 34–42 under 35 U.S.C. § 103 as unpatentable over Phillips, Videon, and Longman. Final Act. 7–15.

The Examiner rejected claim 9 under 35 U.S.C. § 103 as unpatentable over Phillips, Videon, Longman, and Meyer. Final Act. 7–15.

ANALYSIS

THE WRITTEN DESCRIPTION REJECTION AND THE OBJECTIONS²

Claims 3, 5, 6, 14, 15, 22, 36, and 38

Based on the record before us, we are persuaded that the Examiner erred in rejecting claims 3, 5, 6, 14, 15, 22, 36, and 38 for lack written description support and in objecting to the Drawings and Specification.

In order to satisfy the written description requirement, “the [original] specification must describe an invention understandable to [a] skilled artisan

² We note objections, generally, are petitionable matters. However, the objections to the Drawings and Specification here turn on the same issue as the written description rejection. *Compare* Final Act. 2–3 *with* Appeal Br. 9–11. Namely, the Examiner objections and written description rejection

Appeal 2019-006235
Reissue Application 14/644,855
Patent 8,833,182

and show that the inventor actually invented the invention claimed.” *Ariad Pharms., Inc. v. Eli Lilly & Co.*, 598 F.3d 1336, 1351 (Fed. Cir. 2010) (en banc). “[T]he test for sufficiency is whether the disclosure of the application relied upon reasonably conveys to those skilled in the art that the inventor had possession of the claimed subject matter as of the filing date.” *Id.* (citations omitted). “[T]he written description requirement is satisfied by the patentee’s disclosure of ‘such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention.’” *Enzo Biochem, Inc. v. Gen-Probe Inc.*, 323 F.3d 956, 969 (Fed. Cir. 2002) (quoting *Lockwood v. Am. Airlines, Inc.*, 107 F.3d 1565, 1572 (Fed. Cir. 1997)).

The underlying crux of the dispute here is the Examiner’s interpretation of the claimed “circuit-mounting structure...configured to detachably mount a measurement board.” The Examiner interprets this limitation under 25 U.S.C. 112, sixth paragraph (pre-AIA) and identifies the corresponding structure as projection with threaded openings for attaching the measurement board. *See* Final Act. 4–7. In particular, the Examiner defines the corresponding structure for the circuit mounting structure as

depend on the Examiner’s interpretation of the circuit mounting structure limitation. Accordingly, our analysis and decision with respect to the written description rejection will also address the disputed objections. *See, e.g., Ex Parte Edward J. Domanico*, 2009-014289, 2011 WL 4484144 (BPAI Sept. 21, 2011) (deciding an objection to the Specification for lack of antecedent basis along with a written description rejection because the objection turned on the same issue and noting that the MPEP sets forth that a new matter objection is appealable when the issue is the basis for both an objection and a rejection).

A projection or protuberance extending from a surface of the crank arm, comprising a circuit-mounting opening containing further circuit-mounting structures in the form of threads, and may further include a threaded fastener which can extend (through openings in the measurement board and) into the corresponding opening in the circuit-mounting structure. An alternative structure for this would be threaded nuts welded or bonded to the crank arm as described in the specification.

Final Act. 6–7.

Notably, the Examiner’s interpretation excludes *openings* in the crank arm without a projection, such as openings 82c and 82e identified in Figure 3 below.

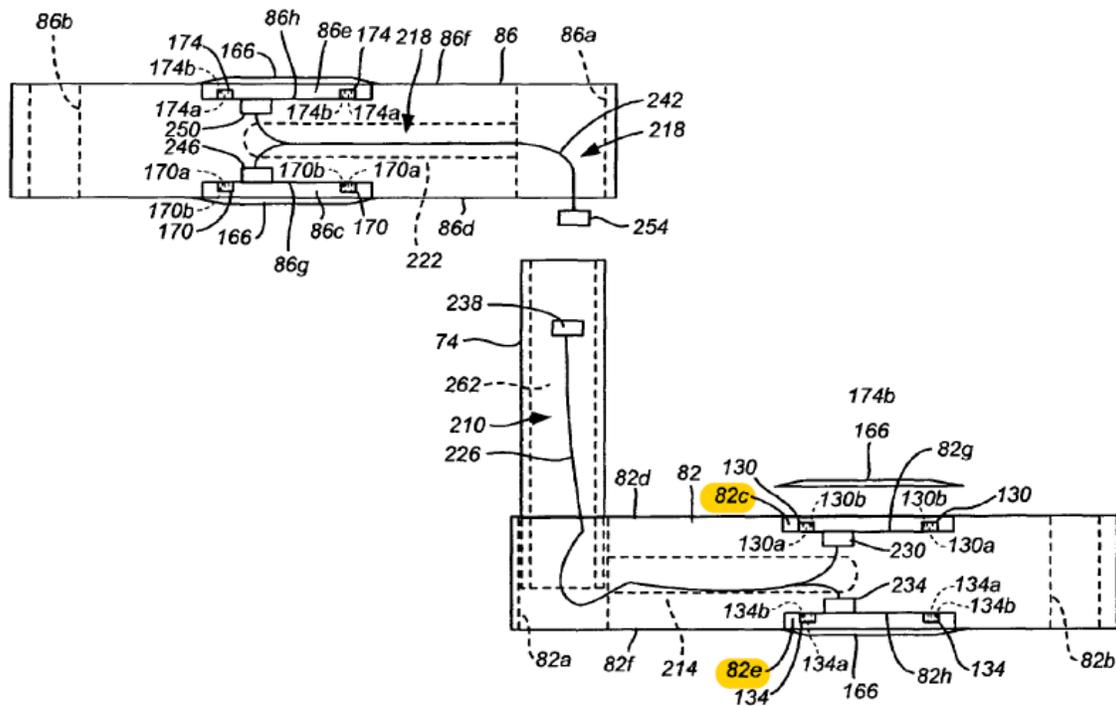


FIG. 3

Figure 3 including highlighted openings (82c and 82e) in the crank arm
Under this interpretation, the Examiner determines the Specification lacks sufficient written description support for a circuit mounting opening of the

Appeal 2019-006235
Reissue Application 14/644,855
Patent 8,833,182

circuit mounting structure with the further limitations for the opening: a cover mounting to the opening (claim 3), an electrical connector within the opening (claims 5, 6, and 22), measurement board mounted the within the opening (claim 14), and the opening having a floor (claims 15, 36, and 38). *See* Final Act. 2–3 (discussing the claim limitations in the context of the objection to the Specification).

Appellant, on the other hand, argues the Examiner erred by construing the limitation under 35 U.S.C. 112, sixth paragraph (pre-AIA). Appeal Br. 5–6; Reply Br. 4. Appellant, in particular, asserts that the Examiner ignores the recited “measurement board.” Appeal Br. 5. According to Appellant, a skilled artisan would understand “measurement board” in conjunction with “circuit” to be an electronic circuit board and there is a well-known class of structures for mounting electronic circuit boards. Appeal Br. 5–6. Appellant maintains that the claimed limitation, thus, recites sufficiently definite structure and should not be interpreted as a means plus function limitation. *Id.*

We disagree. As the Examiner explains, “structure” of the claimed circuit mounting structure is a generic placeholder and this generic placeholder “is modified by the functional language ‘configured to detachably mount,’ and not by any specific structure.” Ans. 5. Appellant’s blanket assertion that there is a well-known class of structures to perform the recited mounting (Appeal Br. 5–6; Reply Br. 4) is unpersuasive. Appellant fails to identify the alleged class of structures nor does Appellant provide any evidence to support this argument. *See, e.g., Diebold Nixdorf, Inc. v. International Trade Commission*, 899 F.3d 1291 (Fed. Cir. 2018)

(considering that there was no evidence presented that the disputed term “was reasonably well understood by persons of ordinary skill in the art to refer to a structure or class of structures” in finding that the term should be construed under 35 U.S.C. 112, sixth paragraph (pre-AIA)).

Moreover, the Specification describes that a measurement board may comprise a substrate and the substrate “may be a printed circuit board *or a semiconductor, metal or other conductive or nonconductive rigid or flexible sheet.*” Spec. col. 3, ll. 51–53 (emphasis added). Appellant’s assertion then that the claimed measurement board is limited to only a printed circuit board is unsupported. As such, we are not persuaded that the Examiner erred in construing the recited circuit mounting structure as a means plus function limitation.

Nevertheless, we agree the Examiner erred in identifying the corresponding structure disclosed in the Specification. While the Specification describes, “first and second circuit-mounting structures 130 and 134 are structured as cylindrical pillars or some other forms of projections or protuberances,” (col. 3, ll. 37–39), the Specification additionally includes alternative circuit mounting structures. Notably, as pointed out by Appellant, the Specification describes the circuit mounting structure may include threaded openings in the crank arm. *See, e.g.*, Spec. col. 5, ll. 51–57; col. 7, ll. 20–25; *see also* Appeal Br. 7; Reply Br. 4–5. As such, we are persuaded that the Examiner erred in unduly narrowing the corresponding structure of the circuit mounting structure to projections with threaded openings and determine that the circuit mounting structure may include circuit-mounting openings in the crank arm.

Appeal 2019-006235
Reissue Application 14/644,855
Patent 8,833,182

Accordingly, based on the record before us, we reverse the written description rejection of claims 3, 5, 6, 14, 15, 22, 36, and 38. For the same reasons, the objections to the Drawings and Specification are also reversed.

THE 35 U.S.C. § 103 REJECTION BASED ON PHILIPS, VIDEON, AND LONGMAN
Claims 1, 3, 5, 6, 10–20, 22–25, 28–32, and 34–42

Based on the record before us, we are not persuaded that the Examiner erred in concluding that claims 1, 3, 5, 6, 10–20, 22–25, 28–32, and 34–42 are unpatentable over Philips, Videon, and Longman.

Appellant argues that the cited combination of Phillips, Videon, and Longman does not teach or suggest, “wherein the electrical connector is mounted to the crank arm so that the electrical connector remains at the crank arm when the measurement board is absent from the crank arm,” as recited in claim 1. Appeal Br. 12–13; *see also* claim 10 (reciting similarly limitations). Appellant acknowledges that Longman teaches detachable electrical connectors, but maintains that “when [Longman’s] module is removed from the crank arm, the socket or connector is carried along with it. No connector remains at the crank arm when the device or module is absent from the crank arm.” Appeal Br. 16. According to Appellant,

the claims require an electrical connector to remain at the crank arm when the *measurement board* is removed from the crank arm. Thus, when Longman's rechargeable battery-operated measurement board is removed from the crank arm, the charging socket will be removed with it, and no electrical connector, socket or otherwise, will remain at the crank arm.

Appeal Br. 16–17.

We find this argument unpersuasive. The Examiner merely relies on Longman as teaching detachable connectors. *See, e.g.*, Final Act. 9 (finding that Longman’s “apparatus may include electrical wiring and electrical connectors configured to detachably connect to other electrical connectors.”). As the Examiner explains, Longman’s “‘contact points or connectors,’ a ‘plug in’ external power supply, a ‘DC jack,’ and an ‘electrical socket arranged to receive a jack plug,’” are “all [] detachable electrical connectors.” Ans. 14; *see also* Ans. 16 (finding that “by using sockets, plugs, and jacks, Longman teaches that one electrical connector can remain at the crank arm when a second electrical connector is removed.”); Longman, p. 18–19 (discussing that charging means may be remote and connected to the device). The Examiner then combines Longman’s detachable connectors with Phillips and Videon to satisfy the claimed invention.

As the Examiner points out, Appellant solely challenges the Examiner’s reliance on Longman, without considering the *combination* as set forth by the Examiner. Ans. 17; *see, e.g.*, Appeal Br. 12–17 (discussing only the cited portions of Longman without addressing the teachings of Phillips and Videon); Reply Br. 5–7 (same). One cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. *See In re Keller*, 642 F.2d 413, 426 (CCPA 1981); *In re Merck & Co., Inc.*, 800 F.2d 1091, 1097 (Fed. Cir. 1986). As such, we are not persuaded of error in the Examiner’s rejection of independent claims 1 and 10.

Appellant additionally argues the Examiner erred in relying on design choice to support the determination of obviousness for dependent claims 35–38. *See* Appeal Br. 17–18; Reply Br. 8. For example, Appellant argues that rigidly mounting (claims 35 and 37) and disposing the electrical connector on the bottom floor of the circuit mounting opening (claims 36 and 38) provides certain benefits and the Examiner fails “to provide any reason why one of ordinary skill in the art would” rigidly mount or dispose the electrical connector on the bottom floor. Reply Br. 8.

We find these arguments unpersuasive. As the Examiner points out, a skilled artisan would have understood the limited choices at the time of the invention, namely rigid or non-rigid mounting and placement within a limited space. Ans. 17–18. The Examiner additionally notes that Appellant has not shown any criticality with respect to these limitations. We agree with the Examiner that selecting one of the limited choices would have been obvious to a skilled artisan at the time of the invention as a design choice. *See, e.g., ACCO Brands Cor. V. Felllows, Inc.*, 813 F.3d 1361 (Fed. Cir. 2016) (noting that there are only two possible arrangement for sensor and finding that each arrangement is obvious as a design choice); *Ex parte Spangler*, 2019 WL 1130499 (PTAB 2019) (informative) (concluding that design choice supported obviousness when Appellant failed to show the claimed limitation was critical); *In re Kuhle*, 526 F.2d 553, 555 (CCPA 1975) (holding that the particular placement of a contact in a conductivity measuring device solves no stated problem and is an obvious matter of design choice within the skill in the art). As such, we are not persuaded that the Examiner erred in rejecting claims 35–38 as obvious.

Accordingly, based on the record before us, we affirm the Examiner's rejection of claims 1, 3, 5, 6, 10–20, 22–25, 28–32, and 34–42 as unpatentable over Philips, Videon, and Longman.

Claim 8

Dependent claim 8 recites that the electrical wiring, which is attached to the electrical connector in claim 1, is disposed within the crank arm. The Examiner relies on Longman for this limitation. *See* Final Act. 10 (finding that “the electrical connector may be disposed within the crank arm as taught by Longman.”). The Examiner, however, does not sufficiently explain how Longman at least suggests disposing electrical wiring, which is connected to the electrical connector, within the crank arm. While the Examiner points to Longman's “self-contained inductive charging coil,” (Ans. 17 (citing Longman, p. 18)), it is unclear how this supports an electrical wiring connected to the electrical connector and disposed *within the crank arm*. Without further explanation, we are left to speculate as to how Longman (in combination with Philips and Videon) describes this limitation. Consequently, we are constrained by the record to find that the Examiner erred in concluding Longman, combined with Philips and Videon, teach the limitations of claim 8.

Accordingly, based on the record before us, we reverse the rejection of claim 8 as unpatentable over as unpatentable over Philips, Videon, and Longman.

THE 35 U.S.C. § 103 REJECTION BASED ON
PHILIPS, VIDEON, LONGMAN, AND MEYER

Claim 9

Appeal 2019-006235
 Reissue Application 14/644,855
 Patent 8,833,182

Based on the record before us, we are not persuaded that the Examiner erred in concluding that claim 9 is unpatentable over Philips, Videon, Longman, and Meyer. Appellant does not separately argue the patentability of claim 9 and, instead, relies on the arguments presented for claim 1. *See* Appeal Br. 18; Reply Br. 9. For the reasons discussed above, we find these arguments unpersuasive. Accordingly, based on the record before us, we affirm the rejection of claim 9 as unpatentable over Philips, Videon, Longman, and Meyer.

CONCLUSION

The Examiner’s rejection under 35 U.S.C., first paragraph (pre-AIA) of claims 3, 5, 6, 14, 15, 22, 36, and 38 and the Examiner’s objections to the Drawings and Specification are reversed.

The Examiner’s rejections under 35 U.S.C. § 103 of claims 1, 3, 5, 6, 9–20, 22–25, 28–32 and 34–42 is affirmed, but the Examiner’s rejection under 35 U.S.C. 103 of claim 8 is reversed.

DECISION SUMMARY

In summary:

Claims Rejected	35 U.S.C. §/ 37 C.F.R.	Reference(s)/ Basis	Affirmed	Reversed
Drawings/ Specification	Objection - 37 C.F.R. 1.75(d)(1)			Drawings/ Specification
3, 5, 6, 14, 15, 22, 36, and 38	112, first (pre-AIA)			3, 5, 6, 14, 15, 22, 36, and 38
1, 3, 5, 6, 8, 10–20, 22–	103	Philips, Videon, and Longman	1, 3, 5, 6, 10–20, 22–	8

Appeal 2019-006235
Reissue Application 14/644,855
Patent 8,833,182

25, 28–32 and 34–42			25, 28–32 and 34–42	
9	103	Philips, Videon, Longman, and Meyer	9	
Overall Outcome			1, 3, 5, 6, 9–20, 22– 25, 28–32 and 34–42	8

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-IN-PART