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CROWELL & MORING LLP INTELLECTUAL PROPERTY GROUP P.O. BOX 14300 WASHINGTON, DC 20044-4300			SICONOLFI, ROBERT	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte FLORIAN KNOPF

Appeal 2018-007583
Application 14/879,770
Technology Center 3600

Before BENJAMIN D. M. WOOD, BRETT C. MARTIN, and
ANNETTE R. REIMERS, *Administrative Patent Judges*.

WOOD, *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. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ “Appellant” refers to the applicant as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Hasse & Wrede GmbH. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a rotary viscous vibration damper or rotary viscous vibration absorber. Sole independent claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A rotary viscous vibration damper or absorber, comprising:
a hub part fastenable to a crankshaft of an engine;
a vibration damper ring mounted so as to be rotated relative to the hub part;
a shear gap configured between the hub part and the vibration damper ring, the shear gap being filled with a silicone oil;
flange bushings mounted in the shear gap, the flange bushings guiding the vibration damper ring in the hub part, wherein the flange bushings are made of a liquid crystal polymer.

REFERENCES

The prior art relied upon by the Examiner is:

Name	Reference	Date
Herrmann	US 6,993,996 B2	Feb. 7, 2006
Itakura	US 2003/0112735 A1	June 19, 2003

REJECTION

Claims Rejected	35 U.S.C. §	Reference(s)/Basis
1-4	103	Herrmann, Itakura

OPINION

The Examiner relies on Herrmann to teach all of the limitations of claim 1 except for the flange bushings being made of a liquid crystal polymer. Final Act. 2. For this limitation, the Examiner relies on Itakura. *Id.* at 3. The Examiner finds that Itakura teaches “a vibration damper that uses a liquid crystal polymer for the peripheral wall portion 11 and the outer peripheral portion 13a of the lid portion 13.” *Id.* The Examiner determines that it would have been obvious to make Herrmann’s flange bushings of a

liquid crystal polymer “to provide rigidity, mechanical strength, heat resistance, reliability, compatibility with silicone oil, and good vibration damping.” *Id.*

Appellant’s principle argument is that Itakura is not analogous art. “Two criteria have evolved for determining whether prior art is analogous: (1) whether the art is from the [the inventor’s] 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 Clay*, 966 F.2d 656, 658–59 (Fed. Cir. 1992) (internal citations omitted). Appellant asserts that Itakura is not in the same field of endeavor because “[t]he present invention is directed to high speed rotating dampers used to damp oscillations of an engine crankshaft spinning at several thousand rpm, in a high-temperature, high-stress engine compartment,” whereas Itakura’s application is for “stationary, tiny structures on which a CD drive rests in a relatively cool and static chassis (*e.g.*, a chassis mounted inside a computer enclosure).” Appeal Br. 10. The Examiner responds that “Itakura teaches merely the use of thermoplastic resin that includes Liquid Crystal Polymer as a superior vibration dampening structure for mechanical chassis of a reproduction device used in vertical or horizontal position which is within the field of Inventor’s endeavor of damping vibration.” Ans. 3.

Appellant further asserts that Itakura is not reasonably pertinent to the particular problem with which the inventor is involved. According to Appellant, the invention addresses “the problem of an engine crankshaft damper’s *viscous fluid rapidly degrading in a high-temperature environment*,” whereas Itakura addresses “[the] problem of ‘supporting in a

vibration proof manner the mechanical chassis of a [CD drive]’ to prevent ‘external vibration and internal vibration *hav[ing] a significantly bad effect on the reading and writing accuracy* [of the CD drive’s read/write heads].” Appeal Br. 11 (citing Itakura ¶¶ 2, 4) (emphasis and alterations added by Appellant). The Examiner again responds that Itakura teaches using liquid crystal polymer for its vibration-damping properties, i.e., that Itakura lists “known plastic materials that are known for excellent vibration damping characteristics wherein one such type of material is liquid crystal polymer.” Ans. 4.

The Examiner premises the finding that Itakura is analogous art on Itakura teaching that liquid crystal polymers have “excellent vibration damping characteristics.” Ans. 3, 4. Itakura, however, contains no such teaching. Itakura does not teach using a liquid crystal polymer for its vibration damping characteristics, but rather for other characteristics such as rigidity. Itakura ¶ 59. Moreover, as Appellant notes, the subject invention does not rely on the components made of liquid crystal polymer—the flange bushings—to dampen vibrations, but rather to “guide and mount the vibration damper ring” and minimize adverse interactions with the silicone oil at high operating temperatures (the shearing of the silicone oil dampens the shaft rotational vibrations). Spec. ¶¶ 3–7.

Because the premise on which the Examiner finds that Itakura is analogous art is not supported in the record, the Examiner has not established this finding by a preponderance of the evidence. Accordingly, we do not sustain the Examiner’s rejection of claims 1–4 as unpatentable over Herrmann and Itakura.

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Application 14/879,770

CONCLUSION

The Examiner's rejection is reversed.

More specifically,

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed
1-4	103	Herrmann, Itakura		1-4

REVERSED