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Paper 40
Entered: June 16, 2016

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHIMANO INC.,
Petitioner,

v.

GLOBERIDE, INC.,
Patent Owner.

Case IPR2015-00273
Patent 8,382,022 B2

Before JOSIAH C. COCKS, WILLIAM V. SAINDON, and MITCHELL G. WEATHERLY, *Administrative Patent Judges.*

WEATHERLY, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. Background

Petitioner, Shimano Inc. ("Shimano"), filed a corrected petition (Paper 7, "Pet.") requesting an *inter partes* review of claims 1–12 (the "challenged claims") of U.S. Patent No. 8,382,022 B2 (Ex. 1001, "the '022 patent"). Shimano supported the Petition with a declaration from Scott L. Springer,

PhD (Ex. 1003). Patent Owner, Globeride, Inc. ("Globeride"), timely filed a Preliminary Response. Paper 10 ("Prelim. Resp."). On June 18, 2015, based on the record before us at the time, we instituted an *inter partes* review of claims 1, 2, 6–9, and 12, Paper 14 ("Institution Decision" or "Dec."), on the ground that those claims were unpatentable under 35 U.S.C. § 103 because they were obvious in light of the combination of the following three prior art references: Japanese Patent Publication No. JP2009-131212, ("JP212") (Ex. 1004); Japanese Patent Publication No. JPH11-276042 ("JP042") (Ex. 1007); and Japanese Patent Publication No. JP2002-354974 ("JP974") (Ex. 1005).

After we instituted this review, Globeride filed a Patent Owner Response in opposition to the Petition (Paper 22, "Resp.") that was supported by declarations from Grace King (Ex. 2042), Kimberly Cameron, PhD (Ex. 2043), and Terry Pederson (Ex. 2049). Shimano filed a Reply in support of the Petition (Paper 27, "Reply").

Shimano filed a motion to exclude evidence. Paper 30 ("Pet. Motion"). Globeride filed an opposition to Petitioner's motion to exclude evidence. Paper 34 ("Pet. Mot. Opp."). Shimano filed a reply in support of its motion to exclude evidence. Paper 37 ("Pet. Mot. Reply").

Globeride also filed a motion to exclude evidence. Paper 32 ("PO Motion"). Shimano opposed Patent Owner's motion to exclude evidence. Paper 35 ("PO Mot. Opp."). Globeride filed a reply in support of its motion to exclude evidence. Paper 38 ("PO Mot. Reply").

Globeride did not file a motion to amend any claim of the '022 patent.

We heard oral argument on February 9, 2016. A transcript of the hearing is entered as Paper 39 ("Tr.").

For the reasons expressed below, we conclude that Shimano has demonstrated, by a preponderance of evidence, that claims 1, 2, 6–9, and 12 are unpatentable. We also grant-in-part Shimano's motion to exclude evidence and deny Globeride's motion to exclude evidence.

B. Related Proceedings

The parties identify no related proceedings. Pet. 1; Paper 4, 2.

C. The '022 Patent

The '022 patent is directed to a "spinning reel for fishing." Ex. 1001, 1:5. Prior spinning reels include a seal surrounding a drive shaft and located near the front of the reel body to prevent water from entering and corroding the internal mechanisms of the reel. *Id*. at 1:12–24. The Specification describes the claimed reel as including all the typical elements of a spinning reel such as a reel body, handle, spool, rotor, and pinion. *Id*. at 3:55–4:16. The claimed reel also includes a "magnetic seal device." *Id*. at 9:54 (independent claim 1), 10:40 (independent claim 9). The Specification illustrates magnetic seal device 150 in Figure 5, which is reproduced below with colorized portions to aid in its understanding.

Fig. 5

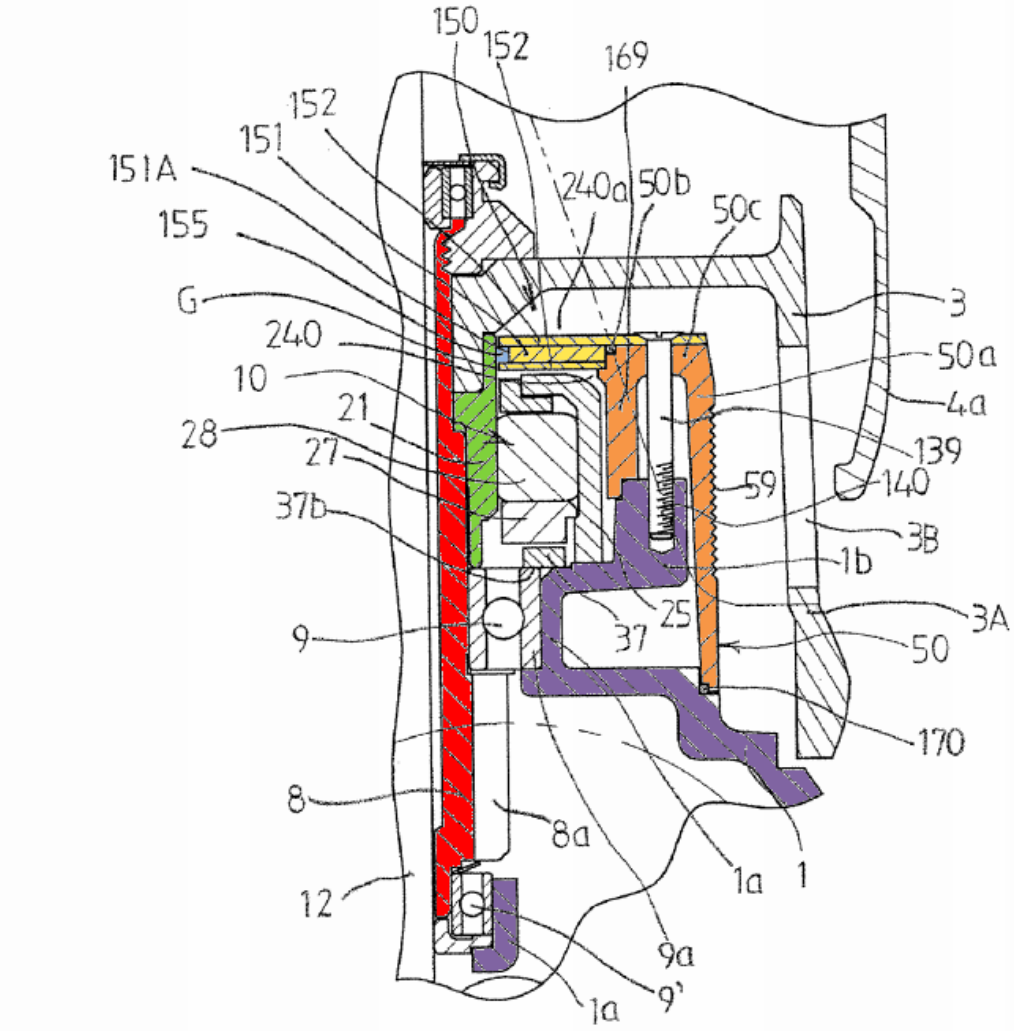


Figure 5 of the ’022 patent is an enlarged sectional view of a portion of a spinning reel with a magnetic seal device located near the distal end of the pinion.

Magnetic seal device 150 includes magnet 151 (yellow), two magnetic rings 152 (yellow), inner race 21 (green), and magnetic fluid 155 (light blue), which is maintained between magnet 151 (yellow) and inner race 21 (green). *Id*. at 6:37–42. Inner race 21 (green) is a pipe-shaped element that is fixed to pinion 8 (red), which rotates when a user winds the handle of the reel. *Id*. at 6:42–47. Bolt 139 secures magnetic rings 152 (yellow) to

support portion 1a (purple) of reel body 1. *Id*. at 6:61–66. Bolt 139 also secures magnetic seal device 150 to the front portion of cover body 50 (orange). *Id*. at 7:17–23.

Gap G exists between inner race 21 (green) and laterally located magnet 151 (yellow) and magnetic rings 152 (yellow) so that inner race 21 (green) may rotate freely relative to magnet 151 (yellow) and magnetic rings 152 (yellow). *Id*. at 6:67–7:2. Magnet 151 (yellow), magnetic rings 152 (yellow), and inner race 21 (green) maintain magnetic fluid 155 (light blue) within gap G and thus prevents intrusion of water or other contaminants into the interior of reel body 1 without imparting significant additional friction as inner race 21 (green) and pinion 8 (red) rotate relative to magnet 151 (yellow) and magnetic rings 152 (yellow). *Id*. at 8:32–47.

Claims 1 and 9 are the independent claims among the claims under review, and claim 1, which is illustrative, recites:

> 1. A spinning reel for fishing comprising:
>
> a reel body including a front portion;
>
> a handle provided in the reel body;
>
> a spool on which a fishing line is to be wound;
>
> a rotor that includes a cylindrical portion accommodating the front portion of the reel body and a fishing line guide part, the rotor being rotated by the rotational manipulation of the handle to wind the fishing line on the spool, an opening being formed radially through the cylindrical portion of the rotor;
>
> a driving part transmitting the rotation of the handle to the rotor;
>
> a support part provided in the front portion of the reel body and supporting the driving part; and

a magnetic seal device arranged between the driving part and the support part.

Id. at 9:40–55.

II. ANALYSIS

A. Claim Interpretation

"A claim in an unexpired patent that will not expire before a final written decision is issued shall be given its broadest reasonable construction in light of the specification of the patent in which it appears." 37 C.F.R. § 42.100(b); *see also In re Cuozzo Speed Techs., LLC*, 793 F.3d 1268, 1278 (Fed. Cir. 2015) ("We conclude that Congress implicitly approved the broadest reasonable interpretation standard in enacting the AIA."), *cert. granted sub nom. Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 890 (mem.) (2016). When applying that standard, we interpret the claim language as it would be understood by one of ordinary skill in the art in light of the specification. *In re Suitco Surface, Inc.*, 603 F.3d 1255, 1260 (Fed. Cir. 2010). Thus, we give claim terms their ordinary and customary meaning. *See In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007) ("The ordinary and customary meaning 'is the meaning that the term would have to a person of ordinary skill in the art in question.'"). For the purposes of this decision, and on this record, we determine that no claim term needs express interpretation. *See Vivid Techs., Inc. v. Am. Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) (only those terms which are in controversy need to be construed, and only to the extent necessary to resolve the controversy).

B. The Parties' Post-Institution Arguments

In our Institution Decision, we concluded that the argument and evidence adduced by Shimano demonstrated a reasonable likelihood that the

combination of JP212, JP042, and JP974 rendered claims 1, 2, 6–9, and 12 obvious. Dec. 8–9, 15–16. We must now determine whether Shimano has established by a preponderance of the evidence that the specified claims are unpatentable over the cited prior art. 35 U.S.C. § 316(e). In this connection, we previously instructed Globeride that "any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived." Paper 15, 6; *see also* 37 C.F.R. § 42.23(a) ("Any material fact not specifically denied may be considered admitted."). Additionally, the Board's Trial Practice Guide states that the Patent Owner Response "should identify all the involved claims that are believed to be patentable and state the basis for that belief." Office Patent Trial Practice Guide, 77 Fed. Reg. 48,756, 48,766 (Aug. 14, 2012).

In response to Shimano's challenge to the claims, Globeride argues that the combination of JP212, JP042, and JP974 fails to describe "a magnetic seal device arranged between the driving part and the support part," as recited in claims 1 and 6–8, or the "magnetic seal" mounted in a "cover body" as recited in claims 2, 9, and 12. Resp. 32–49. Globeride also argues that Shimano's obviousness challenge to all claims fails because Shimano fails to establish that an ordinary artisan would have been motivated to modify JP212 with teaching of JP042 and/or JP974 to add a magnetic seal in the claimed locations. *Id*. at 13–32. Accordingly, the record now contains unrebutted arguments and evidence presented by Shimano regarding the manner in which the asserted prior art teaches all other elements of the claims against which that prior art is asserted. Based on the preponderance of the evidence before us, we conclude that the prior art identified by Shimano describes all limitations of the reviewed claims

except for those that Globeride identifies above. We address Globeride's arguments made at trial below.

C. Obviousness of Claims 1, 2, 6–9, and 12 in View of JP212, JP042, and JP974

We instituted this review on Shimano's challenge to the patentability of claims 1, 2, 6–9, and 12 on the ground that these claims are obvious in light of the combination of JP212, JP042, and JP974. Dec. 16. The Supreme Court in *KSR International Co. v. Teleflex Inc.*, 550 U.S. 398 (2007), reaffirmed the framework for determining obviousness as set forth in *Graham v. John Deere Co.*, 383 U.S. 1 (1966). The *KSR* Court summarized the four factual inquiries set forth in *Graham* that we apply in determining whether a claim is reasonably likely to be unpatentable as obvious under 35 U.S.C. § 103(a) as follows:

1. determining the scope and contents of the prior art,
2. ascertaining the differences between the prior art and the claims at issue,
3. resolving the level of ordinary skill in the pertinent art, and
4. considering objective evidence present in the application indicating obviousness or nonobviousness.

KSR, 550 U.S. at 406. With these standards in mind, we address Shimano's challenge below.

1. Claims 1 and 6–8

Shimano contends that JP212 describes every element of the spinning reel of independent claim 1 except for the magnetic character of the seal located "between the driving part and the support part." Pet. 17–22. Shimano contends that seal 104 of JP212 is located "between the driving part and the support part" as required in claim 1 but acknowledges that seal

104 is not magnetic. Pet. 21. To address this deficiency, Shimano cites JP042 as describing magnetic seal devices 33a, 53, 124, and 125, with seal 125 also surrounding the spool shaft to prevent water from impinging upon clutch 151 and bearings 116a for pinion 112 of JP042. *Id*. at 15, 21 (citing Ex. 1007 ¶ 55, Fig. 9; Ex. 1003 ¶ 25). Based on the similarity of the functions performed by seal 104 in JP212 and seal 125 in JP042, Shimano argues that a skilled artisan would have found it obvious to replace seal 104 of JP212 with magnetic seal 125 of JP042. Pet. 16–17. Shimano also cites the '819 patent as demonstrating that a skilled artisan would have known at the time of invention about the interchangeability of non-magnetic and magnetic seals. *Id*. at 16 (citing Ex. 1006, 18:55–61).

a) Whether the Combination of JP212 and JP042 Describes All Limitations of Claims 1 and 6–8[1]

Shimano contends that it is undisputed that the combination of JP212 and JP042 describes a magnetic seal "arranged between the driving part and the support part" as required in claims 1 and 6–8. Reply 1–3. We agree. Globeride argues that "JP042 . . . fails to teach a magnetic seal at the location disclosed in the '022 Patent." Resp. 33. The issue, however, is whether the *combination* of JP212 and JP042 describes a magnetic seal in the location *recited* in claims 1 and 6–8. Globeride argues that JP212 fails to teach a magnetic seal in the claimed location, but Globeride fails to address

[1] Shimano does not rely upon JP974 as describing any aspect of claims 1 and 6–8 but instead relies solely upon the teachings of the combination of JP212 and JP042. Pet. 31–35 (claim 1), 37 (claims 6–8). Shimano also asserted that claims 1 and 6–8 were unpatentable as obvious in view of the combination of JP212 and JP042. *Id*. at 15–22. We, therefore, analyze Shimano's challenge to claims 1 and 6–8 as being obvious in view of the combination of JP212 and JP042.

the merits of Shimano's argument, which relies upon JP212's disclosure of an elastomeric seal at the claimed location and JP042's disclosure of the interchangeability of magnetic and elastomeric seals.

Based on the record before us, we are persuaded that the combination of JP212 and JP042 describes an elastomeric seal in the claimed location and the interchangeability of elastomeric and magnetic seals in spinning reels. Both experts agree that JP212 describes seal 104 in the recited location "between the driving part and the support part." Ex. 1003 ¶ 25 at 16–17; Ex. 1015, 104:25–107:19. Both experts also agree that, based on JP042, a skilled artisan would have known that spinning reels could employ magnetic seals in place of elastomeric seals. Ex. 1003 ¶ 25 at 17–18; Ex. 1015, 119:14–22. Not only does JP042 describe the use of magnetic seals in spinning reels, but JP042 also indicates that magnetic seals could be used in locations other than those that it expressly describes. Ex. 1007 ¶ 78. Thus, we find that the combination of JP212 and JP042 describes a seal in the claimed location (JP212's seal 104) and the use of magnetic seals in a variety of locations within a spinning reel (magnetic seals 33a, 53, 124, and 125 of JP042). Accordingly, we determine that the combination of JP212 and JP042 describes all limitations of claims 1 and 6–8.

b) Reason for Combining JP212 and JP042

Shimano argues that JP212's seal 104 (an elastomeric seal) and JP042's seal 125 (a magnetic seal) perform the same function in a spinning reel, namely, preventing water from entering an opening through which a shaft extends to protect the clutch and bearings. Pet. 15 (citing Ex. 1004 Fig. 2; Ex. 1007, Fig. 9, ¶ 55). Based on the similarity in the function of

these two seals, Shimano contends that it would have been obvious to replace JP212's seal 104 with a magnetic seal as taught by JP042. *Id*.

Globeride argues that a skilled artisan would not have been motivated to replace seal 104 in JP212 with a magnetic seal as described by JP042 for four reasons. Resp. 13–32. We address each in turn below and find Globeride's arguments to be unpersuasive.

(1) JP212's Elastomeric Seal 104 Reduces Friction Well Enough

Globeride argues that a skilled artisan would not have been motivated to replace seal 104 in JP212 with a magnetic seal because JP212 states that its seal 104 "does not lower the rotational properties" of the shaft that it surrounds and prevents water from intruding into the reel body. Resp. 17 (citing Ex. 1004 ¶ 49). Globeride also criticizes Dr. Springer for allegedly failing to explain why a skilled artisan would remove seal 104 in favor of a magnetic seal. *Id*. at 18.

Shimano persuasively argues that Globeride's reliance on JP212's description of the performance of seal 104 ignores the well-known use of magnetic seals for reducing friction when compared to seals involving physical contact such as JP212's seal 104. Reply 3–4. Both experts agree that contact between moving parts will result in friction. Ex. 1015, 88:3–90:6; Ex. 2050, 108:10–15. JP042 expressly states that "when causing an elastic-made seal to contact a rotating body that will perform relative rotation, there is the danger that the rotational performance will drop because the friction force between the seal and the rotating body is large." Ex. 1007 ¶ 5. Accordingly, we determine that a skilled artisan would have known that a magnetic seal at the location of JP212's seal 104 would reduce friction when compared to elastomeric seal 104. Globeride's argument that

a skilled artisan would not have been motivated to reduce friction caused by JP212's seal 104 because that friction was sufficiently low is unpersuasive.

(2) Replacing JP212's Seal with a Magnetic Seal Would Prevent JP212 from Achieving Its Intended Purpose

Globeride also argues that a skilled artisan would not have replaced seal JP212's 104 with a magnetic seal because doing so would prevent seal 104 from achieving multiple aspects of its intended purpose. Resp. 19–22 (citing *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)). Globeride identifies the four advantages of JP212's elastomeric seal 104 that would allegedly be eliminated by replacing it with a magnetic seal, including: (1) providing an axially compact design that maintains stability and strength, *id*. at 19 (citing Ex. 1004 ¶ 40), (2) making the reel lightweight by reducing the number of components, *id*. at 20 (citing Ex. 1004 ¶¶ 10–11), (3) sealing the entire front portion of the reel, *id*. (citing Ex. 1004 ¶¶ 49–52), and (4) providing elasticity in the front portion of the reel, *id*. at 21 (citing Ex. 1004, ¶ 46). Globeride's reliance upon unspecified portions of *In re Gordon* and its overemphasis on allegedly thwarted intended purposes of JP212 is unpersuasive. *Gordon* does not preclude any modification of a reference that might diminish some advantages while leading to others. Rather, *Gordon*, stands for the proposition that a case for obviousness is undermined if modifying the prior art would render that prior art "inoperable for its intended purpose." *Gordon*, 733 F.2d at 902.

We are not persuaded that Globeride has established that replacing seal 104 with a magnetic seal would render the reel of JP212 inoperable because Globeride merely recites improvements touted by JP212 itself relating to seal 104, rather than how replacing that seal with a magnetic seal would render the modified reel inoperable. By contrast, Shimano has

demonstrated persuasively based on testimony from both experts and disclosure in JP042 that a skilled artisan would have known that replacing seal 104 with a magnetic seal would have resulted in a reel having a simple design, a hermetically sealed interior that prevented contamination, a low degree of rotational friction, smooth rotary motion with maximum transmission of torque, and long-lived high reliability. Reply 4 (citing Ex. 1015, 94:12–95:7; Ex. 2050, 109:11–16; Ex. 1007 ¶ 79).

(3) JP212 Allegedly Cannot Be Modified to Replace Seal 104 with a Magnetic Seal

Globeride argues that Shimano has failed to demonstrate how a skilled artisan would have been able to modify JP212 by replacing seal 104 with a magnetic seal and that doing so would be so complicated that it could not have been obvious. Resp. 22–32. We are not persuaded by Globeride's argument. "The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference . . . . Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (citations omitted). Here, the prior art conveys that a skilled artisan would have known how to implement a magnetic seal in a spinning reel. That the implementation of a magnetic seal into a particular fishing reel, e.g., that of JP212, may have involved some level of complexity does not compel a conclusion of non-obviousness. Moreover, both experts agree that magnetic seals that were available to a skilled artisan were of the same general size and shape as elastomeric seals of the same timeframe. Ex. 1015, 22:13–25; Ex. 2050, 117:23–118:6. Shimano persuades us that the collective teachings of JP212 and JP042 would have provided a reason for a skilled artisan to substitute a magnetic

seal for JP212's seal 104 and that making such a substation would have been within the ordinary level of skill.

(4) Conclusion

Based on the evidence of record, we are persuaded that a skilled artisan would have been provided a reason for to combine the teachings of JP212 and JP042 and modify JP212 by replacing seal 104 with a magnetic seal.

2. Claims 2, 9, and 12

Independent claim 9[2] recites the rotor in less detail than claim 1, *compare* Ex. 1001, 10:33–35 (claim 9) *with id*. at 9:44–49 (claim 1), but additionally requires that the reel include "a cap-shaped cover body" and that the magnetic seal device is "mounted in the cover body," *id*. at 10:30–40. Claim 2, which depends from claim 1, similarly recites a "cap-shaped cover body" having a "front portion" into which the "magnetic seal device is mounted." Ex. 1001, 9:56–60. The '022 patent describes the claimed cover body as protecting the clutch within the reel body. Ex. 1001, 4:58–60; Ex. 1003 ¶ 26 at 30–37.

Shimano's analysis of independent claim 9 is substantially the same as its analysis of claim 1, *compare* Pet. 37–41 *with id*. at 17–22, except that Shimano further identifies retaining component 33 of JP974 as constituting the claimed cover body, *id*. at 32–33 (citing Ex. 1005, Abstract); *see also* Ex. 1005 ¶¶ 13, 18–21. Shimano argues that it would have been obvious to

[2] Claim 9 recites "a cylindrical magnetic body" and later recites "the magnetic ring" without antecedent basis. Ex. 1001, 10:40–44. Dr. Springer testifies that he reads "the magnetic ring" in claim 9 as if it were written as "the magnetic body." Ex. 1003 ¶ 26, p. 37. For purposes of our Decision, we also read "the magnetic ring" as "the magnetic body."

incorporate retaining component 33 of JP974 into the reel of JP212 because both JP212 and JP974 are "concerned with protecting the clutch and bearings." Pet. 33. Shimano similarly relies upon JP974 as describing the cover body of claim 2. *Id*. at 35–36.

a) Whether the Combination of JP212, JP042, and JP974 Describes All Limitations of Claims 2, 9, and 12

Globeride argues that the combination of JP212, JP042, and JP974 fails to describe the cap-shaped cover body of claims 2, 9, and 12 because retaining component 33 is not a cover body. More specifically, Globeride cites Dr. Cameron's testimony that retaining component 33 "is not simply a cover for the reel body but rather is the support structure for a bearing of the pinion shaft." Resp. 30 (citing Ex. 2043 ¶ 68). Shimano responds that Dr. Cameron's testimony on this point is irrelevant because the "cover body" of claims 2, 9, and 12 reads on the retaining component 33. Reply 14.

Shimano's argument is persuasive for two reasons. First, Dr. Cameron's testimony, on its face, fails to establish that retaining component 33 is not a cover body. Her statement that retaining component 33 "is not simply a cover body" reveals that she believes component 33 to be a cover body, but also something else, the "support structure for a bearing." Second, claims 2, 9, and 12 merely require that the cover body be cap shaped and have a surrounding wall mounted in the front portion of the reel body. Retaining component 33 of JP974 meets all these limitations. Accordingly, we determine that the combination of JP212, JP042, and JP974 describes all limitations of claims 2, 9, and 12.

b) Reason for Combining JP212 and JP974

Shimano relies upon similarities in the purposes of seal 104 and wall part 98 in JP212 with seal 40 and retaining component 33 of JP974 as the

reason for a skilled artisan to incorporate retaining component 33 from JP974 into the front portion of the reel body of JP212. Pet. 32–33. Shimano contends that both sets of structures "protect the clutch and bearings" within the reel body. *Id*. (citing Ex. 1003 ¶ 26 at 30–37). Dr. Springer testifies that because JP212 and JP974

> are both concerned with protecting the clutch and bearings (which is the same purpose of the cap-shaped cover body in the '022 patent), it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the cap-shaped cover body of the JP974 publication on the spinning reel of the JP212 publication.

Ex. 1003 ¶ 26 at 31–32 (claim 2), 35–36 (claim 9). Shimano also points out that JP974's seal 40 is mounted in the front portion of retaining component 33. Pet. 35 (citing Ex. 1005 ¶ 21, Fig. 6; Ex. 1003 ¶ 26 at 30–32).

Globeride responds by arguing that a skilled artisan would not have been motivated to add JP974's component 33 to the reel of JP212 or to place a magnetic seal in component 33 because doing so "would add weight to the reel and . . . add more structures to the reel." Resp. 31 (citing Ex. 2043 ¶ 68). Globeride criticizes Dr. Springer's suggestion that a skilled artisan would have known that weight could be minimized by selecting plastic for the cover body. *Id*. at 31–32 (citing Ex. 2050, 180:5–181:12). Globeride contends that a skilled artisan would have known that component 33 screws onto a metal part. *Id*. at 31 (citing Ex. 2043 ¶ 69). Globeride argues that a skilled artisan would have known that it would be "ill advised to use a plastic fitting in conjunction with a metal one." *Id*. (citing Ex. 2043 ¶ 69). Globeride relies upon Dr. Cameron's declaration testimony for both points. *Id*. However, on cross examination, Dr. Cameron admitted that JP974 does not disclose that the part onto which component 33 is screwed is made of

metal but that she concluded it was metal based solely on her experience. Ex. 1015, 125:20–127:9. She also admitted that the part onto which component 33 is mounted could be made of hard resin. *Id*. at 127:10–12.

We determine that both JP212 and JP974 teach an elastomeric seal (104 in JP212 and 40 in JP974) in the claimed location with JP974 suggesting that its seal 40 is mounted in the front portion of a cover body. Figure 4 from JP212, reproduced below left, and Figure 6 from JP974, reproduced below right, illustrate the location of JP212's seal 104 and JP974's seal 40 (both of which are highlighted blue) respectively.

【 図４ 】

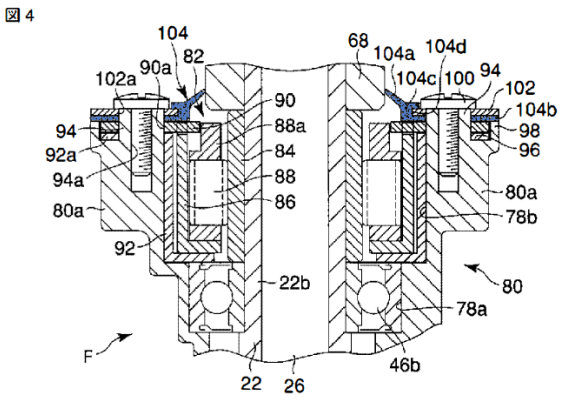
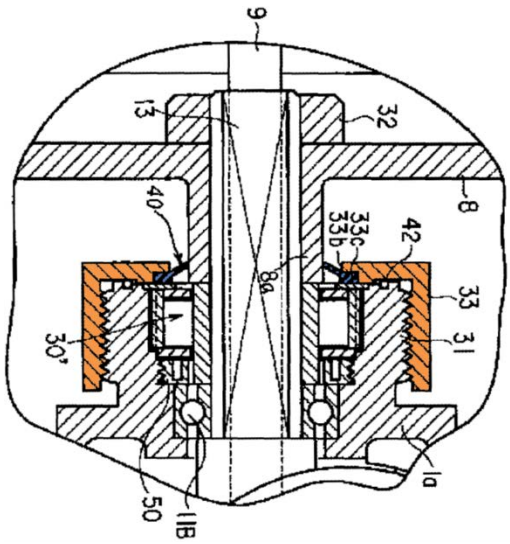


Figure 4 of JP212 illustrates components of a spinning reel inside the rotor.



【 図６ 】

Figure 6 of JP974 illustrates components of a spinning reel inside the rotor.

These figures illustrate that both JP212 and JP974 describe a seal (seal 104 in JP212 and seal 40 in JP974) against the driving part that is located inside the space defined by the rotor. JP974 further describes retaining component 33 (highlighted in orange), which Shimano identifies as constituting the claimed cover body.

We find that the evidence of record establishes that a skilled artisan would have known how to incorporate the components of JP974 and JP042 into JP212. We also determine that Shimano has demonstrated persuasively that JP042 and JP974 expressly suggested reasons that a skilled artisan would have modified JP212 to arrive at the device of claims 2, 9, and 12.

3. Objective Evidence of Non-Obviousness

Globeride proffers argument and evidence that secondary considerations demand a finding of non-obviousness. Resp. 49–60. Globeride contends that evidence of praise of others, the long-felt but unresolved need for the invention, and Shimano's actions demonstrate the non-obviousness of all claims at issue. *Id*. at 50–60. Globeride relies on five articles that were published in print (Exs. 2044 and 2047) or on the internet (Exs. 2045, 2046, and 2048) in support of its argument. *Id*. (citing Exs. 2044–48).[3]

a) Nexus

The factual inquiries for obviousness include secondary considerations based on evaluation and crediting of objective evidence. *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966). However, to accord

[3] Globeride also attempts to add evidentiary weight to each of Exhibits 2044–48 by having Dr. Cameron parrot the use of these exhibits in the Patent Owner Response and conclude that Exhibits 2044–48 are objective evidence that demonstrates non-obviousness of the claimed invention. Ex. 2043 ¶¶ 70–74. Dr. Cameron testified that she had never designed any components for a fishing reel or disassembled a spinning reel before her involvement in this proceeding. Ex. 1015, 16:17–17:22. This testimony demonstrates that she had no personal knowledge of the state of the industry at the time Exhibits 2044–48 were created. On balance, we consider her testimony at ¶¶ 70–74 of her declaration to be of essentially no additional probative value beyond the articles themselves.

substantial weight to objective evidence requires the finding of a nexus between the evidence and the merits of the claimed invention. *In re GPAC Inc.*, 57 F.3d 1573, 1580 (Fed. Cir. 1995). "Nexus" is a legally and factually sufficient connection between the objective evidence and the claimed invention, such that the objective evidence should be considered in determining nonobviousness. *Demaco Corp. v. F. Von Langsdorff Licensing Ltd.*, 851 F.2d 1387, 1392 (Fed. Cir. 1988). The burden of showing that there is a nexus lies with the patent owner. *Id.*; *see In re Paulsen*, 30 F.3d 1475, 1482 (Fed. Cir. 1994).

Shimano argues that Exhibits 2044–48 fail to establish that the reels being described "have all of the features of the spinning reels *claimed* in the '022 patent" because they merely contain "bare reference[s] to the use of a magnetic fluid or seal" in a spinning reel. Reply 15. Based upon our review of Exhibits 2044–48, we conclude that none of Exhibits 2044–48 alone establishes a nexus between the evidence and the claimed invention. None of these Exhibits describes the reel in sufficient detail to know whether the magnetic seal described in the exhibit is in the claimed location.

Nevertheless, Globeride proffers the declaration of Terry Pederson, who testifies in support of Globeride's effort to establish nexus between the proffered evidence and the claimed invention. Resp. 50–60 (citing Ex. 2049). Mr. Pederson testifies that each of Exhibits 2044–48 refers to commercial products made by Globeride, either by model name or by using variations of Globeride's MAGSEALED trademark that are "covered by the claims of the '022 patent." Ex. 2049 ¶¶ 3–7. Rather than address this aspect

of Mr. Pederson's testimony, Shimano moved to exclude his declaration.[4] Reply 15. Because Shimano did not depose Mr. Pederson, his testimony is undisputed and therefore establishes that the articles submitted as Exhibits 2044–48 refer to Globeride products that included the claimed invention. Accordingly, we determine that Globeride has established nexus between Exhibits 2044–48 and the claimed spinning reel.

b) Sufficiency of the Evidence of Secondary Considerations

The Federal Circuit recently held that "weak secondary considerations generally do not overcome a strong prima facie case of obviousness. . . . This is particularly true when an invention involves nothing more than 'the predictable use of prior art elements according to their established functions.'" *Apple Inc. v. Samsung Elecs. Co.*, 816 F.3d 788, 804 (Fed. Cir. 2016) (citations omitted). Shimano's showing of obviousness relies upon the straightforward substitution of a magnetic seal (from JP042) and a cover body (from JP974), both of which are used according to their established functions, into JP212.

(1) Praise by Others

Globeride contends that Exhibits 2045–48 reflect praise of the claimed invention by others. Resp. 50–52. We discuss each in turn and determine that none of the articles, alone or in combination, constitutes sufficient evidence of praise by others of the claimed invention to outweigh Shimano's strong showing of obviousness.

Exhibit 2045 is an online review of a Globeride spinning reel having a magnetic seal that was posted on October 13, 2012, by an organization

[4] For the reasons expressed in part in part III.A.2 below, we deny Shimano's motion to exclude Mr. Pederson's declaration.

called J&H Tackle, a fishing and tackle sporting goods store in New York. Ex. 2045, 1–3. The reviewer, Joshua Fuld, states that a reel with the claimed magnetic seal "is the smoothest spinning reel I have ever felt." *Id*. at 1. However, Mr. Fuld also stated that "16 ball bearings, coupled with the magnetic seal make this reel an absolute dream." *Id*. Accordingly, it is unclear how much of Mr. Fuld's praise is directed to the claimed magnetic seal rather than the unclaimed "16 ball bearings." We determine that, because Mr. Fuld's praise is not limited to the claimed magnetic seal, its probative value in establishing praise of others is diminished.

Exhibit 2046 is an online article posted November 26, 2014, and authored by Joe Sills, the Digital Editor for Fishing Tackle Retailer, which is "an online and print resource providing business information to the fishing retail and sport fishing industry." Ex. 2046, 3. Mr. Sills reports to the fishing retail industry that Globeride's magnetic seal technology is being brought "down to lower line reels" to "make it more cost affordable for the general public." *Id*. at 1. The article states that:

> [T]he engineers at Daiwa have been on a mission to stop the gear-stripping malice of the sea.
>
> Now, they've done just that. And they've done it in a way that no other reel manufacturer on the planet has been able to replicate-by using a sealing system designed using space age technology.
>
> The system is called Magsealed. It's incredibly cool stuff, and it's the best reel protection you've never heard of.

Ex. 2046, 1. The article also contains quotes from Globeride's marketing manager in the United States, Curt Arakawa, who claims that the "oil helps rotation and makes it a smoother reel with less maintenance." *Id*. We determine that Exhibit 2046 does not reflect an independent analysis of the

performance of Globeride's reels. Rather, the article is akin to a press release announcing a new product introduction and containing statements written by advertising and marketing personnel. We consider the article to be of little probative value in establishing praise of others.

Exhibit 2047 is an article in the December 2014 issue of *TackleTrade World* magazine. Ex. 2047. The article purports to reveal how Globeride "came up with" its "Mag Sealed Technology." *Id*. at 1. The article includes quotes from an assistant manager with Globeride, Moto Obayashi, in which Mr. Obayashi explains why Globeride included the magnetic seal into its newest spinning reels. *Id*. at 1–2. The article also explains that "[w]ith Mag Sealed on board, smooth rotor efficiency has improved beyond comparison," *id*. at 3, and that "Mag Sealed Technology — has turned the market on its head," *id*. at2. Based on our review, and just as with Exhibit 2046, the TackleTrade World article reads like a news feature that includes Globeride's own marketing claims rather than an independent analysis of the performance of Globeride's reels. Accordingly, we find the article to be of little probative value in establishing praise of others.

Globeride only briefly mentions Exhibit 2048, which is an online article posted by *On The Water* on February 12, 2015. Ex. 2048. The authenticity of the article is established by the declaration of Joe Pechie, an employee in advertising sales and marketing, who describes *On The Water* as an organization "dedicated to covering fishing and boating news in the Northeast of the United States." *Id*. at 6. The article reports that Globeride has incorporated its "Magseal" technology into the entire range of its spinning reels. *Id*. at 1–2. The article describes the technology as "an incredibly cool technology that replaces the standard rubber seals in an

average reel with a special, magnetic-oil seal." *Id*. at 1. The article also contains quotes from Mr. Arakawa, who claims that the "oil helps rotation and makes it a smoother reel with less maintenance." *Id*. at 2. Just as with Exhibits 2046 and 2047, we determine that Exhibit 2048 does not reflect an independent analysis of the performance of Globeride's reels and is, therefore, of little probative value in establishing praise of others.

(2) Long-felt Need

Globeride contends that Exhibit 2044 demonstrates that the '022 patent solved a long-felt but unmet need for a spinning reel that still rotates smoothly despite exposure to harsh conditions. Resp. 54. Exhibit 2044 is a copy of an article in the March 2011 issue of a Japanese fishing magazine called *Lure magazine Salt* with a translation of portions of the article provided by Globeride. Ex. 2044. The unidentified author describes the state of spinning reel technology before the introduction of the CERTATE 2500 and CERTATE 3000, both of which included a magnetic seal behind the rotor as follows:

> Each model change enhanced the durability in bodies and parts by increasing the strength of bodies, gears, shafts, etc. However, bearings could not be freed of rust or salt grains. The seawater entering the reel through a gap evaporates and leaves salt grains which cause the reel to produce a rumbling sound as if sand grains are left in the reel.
>
> Newly used reels soon lose smoothness in rotation and start rumbling due to rust or salt grains in bearings. "The only one spinning reel that can maintain its comfortable initial performance is 'SALTIGA,'" I have been saying and writing so for these ten years.
>
> However, "CERTATE 2500" which I have been using for almost one year since the spring in 2010 still maintains its smooth rotation, and "CERTATE 3000" which I have been using

> since last summer still rotates smoothly without producing an unusual sound in spite of harsh use in fishing of blackfin sea bass on shore.
>
> This seems to be a matter of course but actually is so essential, and has troubled many saltwater lure fishermen including me.

Ex. 2044.

Although we deny Shimano's motion to exclude Exhibit 2044, we consider the weight of this evidence to be diminished for two reasons. First, the article is only partially translated, which deprives us and Shimano from understanding the context presented in the untranslated portion of the article. Second, Globeride did not provide a declaration from the author or any other person to demonstrate that the entire article was reproduced. Nevertheless, considering the entirety of the translated portion of the article, it is apparent that the author believed that the "problem" of degraded "initial performance" caused by intrusion of seawater into the reel body had been solved by a reel that did not have a magnetic seal, the SALTIGA model that he had been writing about for ten years prior. Ex. 2044, 3. One partially translated article from an unidentified author who touts Globeride's magnetic seal but also recognizes that another product without the magnetic seal apparently performed as well and reveals little about whether a need existed to replace any particular seal in a spinning reel with a magnetic seal.

(3) Shimano's Alleged Failure to Place a Magnetic Seal in the Claimed Location

Globeride argues that Shimano's failure to add a magnetic seal to the claimed location despite its knowledge of magnetic seals in spinning reels as taught by JP042 demonstrates the non-obviousness of the claimed invention. Resp. 55 (citing *Leo Pharm. Prods., Ltd. v Rea*, 726 F.3d 1346, 1356-1357,

1359 (Fed. Cir. 2013) (commenting that long delay in combining known prior art features weighs against argument that invention was obvious to try)). We are not persuaded by Globeride's argument. It is true that the prior art indicated that use of magnetic seals in spinning reels was well known by early 1998, *see* Ex. 1007 (filing date of March 26, 1998) or mid-2001, *see* Ex. 1006 (claiming priority to application filed May 18, 2001), which was 9–12 years before the priority application leading to the '022 patent was filed. Nevertheless, Globeride points out that the novel aspect of its claimed invention was the placement of a magnetic seal in the specified location in the front portion of the reel body. The prior art that Shimano relies upon as teaching the use of a seal at this location dates to the end of 2007. *See* Ex. 1003 (filing date of November 30, 2007). Moreover, the mere presence of a Shimano prior art reference that describes magnetic seals does not demonstrate that Shimano, or any other entity was trying to make the claimed reel but failed. Absent a showing of long-felt need or the failure of others, the mere passage of time without the claimed invention is not evidence of nonobviousness. *Iron Grip Barbell Co. v. USA Sports, Inc.*, 392 F.3d 1317, 1325 (Fed. Cir. 2004).

4. Conclusion

Based on our review of the entire record before us and for the reasons expressed above, we conclude by a preponderance of evidence that claims 1 and 6–8 are unpatentable under 35 U.S.C. § 103 as obvious in view of the combination of JP212 and JP042 and that claims 2, 9, and 12 are unpatentable under 35 U.S.C. § 103 as obvious in view of the combination of JP212, JP042, and JP974.

III. MOTIONS TO EXCLUDE

For the reasons expressed below, we grant-in-part Shimano's motion to exclude evidence and deny Globeride's motion to exclude evidence.

A. Shimano's Motion to Exclude

Shimano moves to exclude all or part of Exhibits 2001–23 and 2043–49. Pet. Motion 1–5. For the reasons that follow, we grant Shimano's motion to exclude Exhibits 2002–23, but deny the motion to exclude Exhibits 2001 and 2043–49.

1. Exhibits 2002–2023

Globeride proffered Exhibits 2002–2023 as evidence in support of its argument in the Preliminary Response that secondary considerations mandated a conclusion that the claimed inventions were not obvious. Prelim. Resp. 35 (citing Exs. 2002–2023). Exhibits 2002–2013 and 2016–2023 are articles apparently downloaded from the internet that purportedly comment upon Globeride products that Globeride alleges to be covered by the claims. Exs. 2002–2013 and 2016–2023. Exhibits 2014 and 2015 are marketing materials by Globeride describing commercial products that Globeride alleges to be covered by the claims. Exs. 2014, 15.

Shimano contends that Exhibits 2002–2023 are inadmissible because: (1) the exhibits are hearsay that should be excluded under Fed. R. Evid. 802; (2) the exhibits are irrelevant under Fed. R. Evid. 401 because Globeride failed to establish nexus between the statements and the claimed invention; and (3) Globeride fails to authenticate the exhibits as required under Fed. R. Evid. 901. Pet. Motion 1–2.

Globeride opposes Shimano's motion on the grounds that Shimano's objections to Exhibits 2002–2023 were filed untimely in violation of Rule

42.64(b)(1) because the letters in which Shimano raised the objections were not filed until Shimano filed its motion, which was long after the time period set forth in Rule 42.64(b)(1). Pet. Mot. Opp. 1–2. However, Shimano's letters were sent to Globeride within the time period for objecting. Pet. Mot. Reply 5. We exercise our discretion under Rule 42.5(c)(3) and, in the interests of justice, excuse Shimano's late action in filing its objections. Accordingly, Globeride's argument is unpersuasive.

Globeride also opposes Shimano's motion on the grounds that Shimano failed to set forth objections to the admissibility of evidence with sufficient particularity to allow Globeride an opportunity for correction under Rule 42.64(b)(1). Although Shimano's objections are noted at a high level by merely citing Federal Rules of Evidence that were allegedly violated, we are not persuaded in these circumstances that Shimano's objections failed to provide sufficient opportunity for correction. The hearsay and authentication problems associated with Exhibits 2002–2023 are glaring. Globeride provided no evidence to establish that any of Exhibits 2002–2023 were authentic. Globeride also failed to explain how any exception to the rule against admitting hearsay applied to any of Exhibits 2002–2023 or why any of Exhibits 2002–2023 contained statements that were not hearsay. We conclude that Fed. R. Evid. 802 and 901 both justify excluding Exhibits 2002–2023 from evidence.

We also note that Globeride conceded that it does not rely in its Patent Owner Response on any of Exhibits 2002–2023. Tr. 49:9–50:9. Furthermore, Globeride has not attempted to overcome our initial determination that it failed to establish a nexus between the information in Exhibits 2002–2023 and the claimed invention. Dec. 16. Therefore,

Globeride has failed to establish how Exhibits 2002–2023 are relevant at trial in this proceeding. Under Fed. R. Evid. 402, irrelevant evidence is not admissible. For all these reasons, we grant Shimano's motion to exclude Exhibits 2002–2023 from the record at trial.

2. Exhibit 2049

Shimano moves to exclude the declaration of Terry Pederson, Exhibit 2049, on the grounds that it is hearsay under Fed. R. Evid. 802 and offered as expert testimony by a witness without sufficient training under Fed. R. Evid. 702 to opine on whether the commercial products described in Exhibits 2044–2048 are covered by the claims at issue. Pet. Motion 3. Shimano's hearsay objection is overruled. Globeride properly proffered Mr. Pederson's declaration as direct testimony in accordance with Rule 42.53(a), which rendered Fed. R. Evid. 802 inapplicable to his declaration. *See* 37 C.F.R. § 42.62(a) (noting that Federal Rules of Evidence apply in proceedings before the Board except as otherwise provided in the Board's Rules); *see also* 37 C.F.R. § 42.53(a) ("Uncompelled direct testimony must be submitted in the form of an affidavit."); *see also* 37 C.F.R. § 42.2 ("*Affidavit* means affidavit or declaration under § 1.68 of this chapter.")

Shimano's objection under Fed. R. Evid. 703 is also overruled. Mr. Pederson is Vice President of Sales for a subsidiary of Globeride who has worked with the company for over 30 years and is personally knowledgeable about Globeride's commercial products. Ex. 2049 ¶ 2. In his capacity as a Globeride executive in charge of sales, we find that Mr. Pederson has sufficient personal knowledge to testify on whether the products identified by name in Exhibits 2044–2048 included the features recited in the claims at issue. We accept Mr. Pederson's testimony as being based upon his

personal knowledge rather than as opinion testimony under Fed. R. Evid. 702 and 703. Accordingly, we deny Shimano's motion to exclude Exhibit 2049.

3. Exhibits 2044–2048

Shimano objects to Exhibits 2044–2048 on the grounds that they are: (1) not authenticated as required under Fed. R. Evid. 901; (2) hearsay that should be excluded under Fed. R. Evid. 802; (3) irrelevant under Fed. R. Evid. 401 because Globeride failed to establish nexus between Exhibits 2044–2048 and the claimed invention; and (4) inadmissible under Fed. R. Evid. 703, which sets standards for expert opinions. Pet. Motion 2–3. We address each objection in turn below and find that none warrants excluding Exhibits 2044–2048 from evidence.

First, we find that Globeride authenticated Exhibits 2045, 2046, and 2048 with declarations of the authors of the articles, which overcomes the objection under Fed. R. Evid. 901. We find that Exhibits 2044 and 2047 are articles in self-authenticating periodicals under Fed. R. Evid. 902(6).

Second, we find that Shimano's hearsay objections to Exhibits 2044–2048 are unavailing either because Shimano could have deposed the witnesses offered to verify the truth of the matter asserted (Exhibits 2045, 2046, and 2048)[5] or because the documents meet the standards set forth under Fed. R. Evid. 807 (Exhibits 2044 and 2047).

[5] Rule 42.53(a) requires parties to submit direct testimony in the form of declarations. Globeride has attached direct testimony to each of these exhibits and, in each declaration, a person attests to the accuracy of the statements made in the article. We, therefore, treat Exhibits 2045, 2046, and 2048 as if the statements were testimony. The proper course for Shimano to

Third, as explained in part II.C.3.a) above, we find that the declaration of Mr. Terry Pederson establishes nexus between the information in Exhibits 2044–2048 and the claimed invention. Accordingly, Exhibits 2044–2048 are relevant under Fed. R. Evid. 401 on the issue of whether secondary considerations preclude a finding of obviousness of claims 1, 2, 6–9, and 12.

Fourth, we find that Exhibits 2044–2048 are admissible as opinion testimony by lay witnesses under Fed. R. Evid. 701. Accordingly, the requirements of Fed. R. Evid. 703 do not apply to Exhibits 2044–2048.

For these reasons, we deny Shimano's motion to exclude Exhibits 2044–2048 from evidence.

4. Exhibits 2001 and 2043

We have reviewed Shimano's motion to exclude Globeride's Exhibit 2001 and portions of Exhibit 2043 from evidence, Globeride's opposition to the motion, and Shimano's reply in support of the motion. Based on our review, we deny Shimano's motion as it relates to Exhibits 2001 and 2043 in all respects for one or both of the following reasons: (1) the motion is moot because it seeks to exclude evidence not considered or relied upon in rendering this Decision or (2) the motion addresses issues more appropriate to determining the weight ascribed to the evidence rather than the admissibility of evidence. In rendering this Decision, we determine and ascribe the appropriate weight to all proffered evidence and, when appropriate, comment upon the weight ascribed.

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have addressed this evidence would have been to depose the witnesses who testified about the statements.

B. Globeride's Motion to Exclude

We have reviewed Globeride's motion to exclude Shimano's Exhibits 1011, 1013, and 1014 from evidence, Shimano's opposition to the motion, and Globeride's reply in support of the motion. Based on our review, we deny Globeride's motion in all respects for one or both of the following reasons: (1) the motion is moot because it seeks to exclude evidence not considered or relied upon in rendering this Decision or (2) the motion addresses issues more appropriate to determining the weight ascribed to the evidence rather than the admissibility of evidence. In rendering this Decision, we determine and ascribe the appropriate weight to all proffered evidence and, when appropriate, comment upon the weight ascribed.

IV. CONCLUSION

For the reasons expressed above, we determine that Shimano has shown by a preponderance of the evidence that claims 1 and 6–8 of the '022 patent are unpatentable under 35 U.S.C. § 103 as obvious in view of the combination of JP212 and JP042 and that claims 2, 9, and 12 are unpatentable under 35 U.S.C. § 103 as obvious in view of the combination of JP212, JP042, and JP974.

V. ORDER

For the reasons given, it is:

ORDERED that claims 1, 2, 6–9, and 12 are held *unpatentable*;

FURTHER ORDERED that Shimano's motion to exclude is *granted-in-part* with respect to Exhibits 2002–2023 and *denied-in-part* in all other respects;

FURTHER ORDERED that Globeride's motion to exclude evidence is *denied*; and

FURTHER ORDERED that, because this is a Final Written Decision pursuant to 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.

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