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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte SIMS VIBRATION LABORATORY, INC.[1]
Appellant, Patent Owner

Appeal 2013-001458
Reexamination Control 90/009,930
Patent No. US 6,298,842 C1[2]
Technology Center 3900

Before DANIEL S. SONG, JOSIAH C. COCKS and
MICHAEL J. FITZPATRICK, *Administrative Patent Judges*.

SONG, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] Sims Vibration Laboratory, Inc. is the real party in interest (Appeal Brief (hereinafter "App. Br.") 1).

[2] Issued October 9, 2001 and *Ex Parte Reexamination Certificat*e issued March 1, 2005 (hereinafter "'984 patent").

The Patent Owner appeals under 35 U.S.C. §§ 134(b) and 306 from a Final Rejection of claims 39, 44 and 50-55, claims 50-55 having been added during the reexamination (App. Br. 1). (Answer (hereinafter "Ans.") 3). In addition to the Appeal Brief, the Patent Owner also relies on a Rebuttal Brief in support of its arguments for patentability of the rejected claims. We have jurisdiction under 35 U.S.C. §§ 134(b) and 306.

According to the Patent Owner, the '842 patent is the subject of litigation entitled *Bow Jax, Inc. vs. Sims Vibration Laboratory, Inc*., CV-09-047-RMP (E.D. Wash.) (App. Br., Related Proceedings Appendix).

The invention is directed a combination of an archery bow and vibration decay pattern modifying components. Representative independent claim 39 reads as follows (App. Br., Claims Appendix, emphasis added):

> 39. [Original] In combination:
>
> an archery bow which comprises a riser and first and second limbs extending in opposite directions from opposite ends of said riser;
>
> *at least one pair of components for modifying the decay patterns of the vibrations* set up in the bow limbs when an arrow is released; and
>
> a component attachment mechanism *mounting one of the pair of vibration decay pattern modifying components to each of the first and second bow limbs*;
>
> each of the vibration decay pattern modifying components being fabricated substantially in its entirety from a soft, elastomeric polymer material;
>
> the vibration decay pattern modifying components being of similar configuration and construction;
>
> each vibration decay pattern modifying component having a head and an integral stem axially aligned along a longitudinal axis of the component, said head being solely attached to said stem;

> the head of the decay pattern modifying component having orthogonally related, spanwise dimensions which are substantially equal and edge portions protruding beyond the stem of the component; and
>
> the component having a hardness, head and stem configurations, and relative head to stem dimensions so selected and effective that the head and stem of the decay pattern modifying component are capable of 360° vibration decay modifying patterns of movement relative to the longitudinal axis of the component upon release of an arrow from the bow.

Independent claim 44 is similar but recites "a recess in the head of the vibration decay pattern modifying component." Independent claim 50 is also similar to claim 39 but recites that a component attachment mechanism mounts the vibration decay pattern modifying component "to outer portions of each of the first and second bow limbs." Independent claim 55 is similar to claim 50 but further recites a recess in the head.

The Examiner made the following rejections under 35 U.S.C. § 103(a):

1. Claims 39, 44, 50-53 and 55 unpatentable over Sims[3] in view of Yamagishi,[4] Izuta[5] and Hoyt.[6]

2. Claim 54 unpatentable over Sims, Yamagishi, Izuta and Hoyt in view of Walk[7] and Pucillo.[8]

[3] U.S. Patent No. 5,362,046 issued November 8, 1994 to Sims.
[4] U.S. Patent No. 5,314,180 issued May 24, 1994 to Yamagishi et al.
[5] U.S. Patent No. 4,936,283 issued June 26, 1990 to Izuta.
[6] U.S. Patent No. 3,412,725 issued November 26, 1968 to Hoyt, Jr.
[7] U.S. Patent No. 5,720,267 issued February 24, 1998 to Walk.
[8] U.S. Patent No. 5,341,792 issued August 30, 1994 to Pucillo.

3. Claims 39, 50-53 and 55 unpatentable over Lacoste[9] in view of Yamagishi, Izuta and Hoyt.

4. Claim 54 unpatentable over Lacoste, Yamagishi, Izuta and Hoyt in view of Walk and Pucillo.

5. Claims 44 and 55 unpatentable over Lacoste, Yamagishi, Izuta and Hoyt in view of Sims.

We AFFIRM.

ISSUES

The following issues have been raised in the present appeal.

1. Whether the Examiner erred in concluding that the combination of a bow and component for modifying the decay patterns of vibrations recited in the independent claims would have been obvious based on Sims in view of Yamagishi, Izuta and Hoyt.

2. Whether the Examiner erred in concluding that the combination of a bow and component for modifying the decay patterns of vibrations recited in independent claims 39, 44 and 50 would have been obvious based on Lacoste in view of Yamagishi, Izuta and Hoyt.

PRINCIPLES OF LAW

In *KSR*, the Supreme Court emphasized "the need for caution in granting a patent based on the combination of elements found in the prior art," and reaffirmed principles based on its precedent that "[t]he combination

[9] U.S. Patent No. 3,941,380 to Lacoste, issued March 2, 1976.

of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *KSR Int'l Co. v. Teleflex Inc*., 550 U.S. 398, 415-16 (2007). The Court further explained that "[i]f a person of ordinary skill can implement a predictable variation, §103 likely bars its patentability" and the operative question is "whether the improvement is more than the predictable use of prior art elements according to their established functions." *Id.* In this regard, "[a] person of ordinary skill is also a person of ordinary creativity, not an automaton." *Id.* at 421.

ANALYSIS

Only those arguments actually made have been considered in this decision. Arguments that could have been made but not set forth in the briefs have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii); *In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011).

Rejection 1

The Examiner rejects claims 39, 44, 50-53 and 55 as unpatentable over Sims in view of Yamagishi, Izuta and Hoyt (Ans. 2-5). As to independent claims 39 and 44, the Examiner finds that Sims discloses "components for modifying the decay patterns of the vibrations" in baseball bats and other implements such as golf clubs and tennis rackets but fails to specifically disclose their use in bows (Ans. 3-4). Referring to Yamagishi, the Examiner states that "it was known in the art to apply vibration dampeners, such as those used on baseball bats, to other implements such as bows and arrows for archery." (Ans. 4). Indeed, Yamagishi discloses an

impact-absorbing element attached to sports instruments such as baseball bats, and also teaches that it can be used for "bows and arrows for archery, Japanese archery and the like." (Yamagishi, col. 4, ll. 8-17). The Examiner further refers to Hoyt and Izuta to contend that "it is known to attach a pair of vibration dampeners to both of first and second limbs extending from the riser of a bow," and concludes that it would have been obvious to use the vibration dampening devices of Sims on the limbs of the bow (Ans. 4).

As to claims 50-53 and 55 that require the vibration decay pattern modifying component be mounted "to outer portions of each of the first and second bow limbs," the Examiner asserts that in view of Yamagishi's disclosure of measuring the effects of the decay components on dampening vibrations using a microacceleration pick-up 39, those in the art would use "a similar process … to measure and locate the place for optimal dampening in a bow[.]" (Ans. 5). Alternatively, the Examiner states that "[m]inimally, it would have been obvious to try other locations on the bow limbs in order to maximize the dampening effects given these teachings as a matter of design choice." (Ans. 5).

While the Patent Owner argues that the Examiner erred for various reasons, we are not persuaded of error for the reasons discussed *infra*. The Patent Owner contends that Hoyt and Izuta teach away from applying Sims in the manner claimed because these references rely on stabilizers that use "their own mass or weight" in order "to achieve a range of moment of inertia" and to deaden "vibrations that make it to the riser area." (App. Br. 11). Presumably referring to claims 50 and 55, the Patent Owner further argues that such prior art stabilizers are "not placed in the areas where the

most vibration occurs, i.e. at the outer end, due to the nature of stabilizers," and appears to argue that such placement would not work (App. Br. 11, 12). Thus, the Patent Owner asserts that the prior art does not disclose a placement of a pair of components for modifying decay patterns of vibrations on the limbs and/or on the outer portion of the limbs, and the disclosed placement of stabilizers teaches away from such placement (App. Br. 11-12; Reb. Br. 4).

However, the Patent Owner's arguments are not persuasive because Examiner's rejection is not based on utilizing the stabilizers disclosed in Hoyt or Izuta, but rather, is based on using the vibration damping device disclosed in Sims which is substantially the same as that disclosed in the '842 patent (*compare, e.g.*, Figs. 2, 3, 20, 21 of the '842 patent *with* Figs. 1-3 of Sims). In addition, we agree with the Examiner (Ans. 12) that the Patent Owner is arguing against the references individually whereas the rejection is based on a combination of references, the proffered argument failing to take into account what the collective teachings of Sims, Yamagishi, Izuta and Hoyt would have suggested to one of ordinary skill in the art. *See In re Keller*, 642 F.2d 413, 425 (CCPA 1981). Moreover, mere description of an implementation in the prior art that differs from the claimed invention, without more, does not show that the prior art is "teaching away" from the invention claimed. *In re Fulton,* 391 F.3d 1195, 1201 (Fed. Cir. 2004).

Whereas the Patent Owner argues that there are no explicit teachings in Yamagishi regarding testing to find an optimal location and that it merely teaches taking measurements "to determine if there was a reduction in the coefficient of vibration" (Reb. Br. 3), this argument is foreclosed by *KSR*, in

which the Supreme Court rejected the rigid requirement of a teaching, suggestion or motivation. *KSR*, 550 U.S. at 418-19 ("the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim" and "obviousness analysis cannot be confined … by overemphasis on the importance of published articles and the explicit content of issued patents."); *see also In re Kahn*, 441 F.3d at 987-88.

The Patent Owner also misses the crux of the Examiner's rejection. In seeking to utilize the vibration damping device disclosed in Sims on a bow as suggested by Yamagishi, the question confronting the person of ordinary skill in the art is where the vibration damping device should be placed on the bow. Whereas the Patent Owner argues that the prior art does not disclose "the placement of a pair of decay pattern modification devices on the first and second limbs of an archery bow, or on the outer portions of the first and second limbs of an archery bow," (Reb. Br. 4), Izuta and Hoyt disclose one stabilizer above the riser portion and one below the riser portion, the stabilizers reducing vibration. As to specific placement on the limbs as recited in claims 39 and 44, or on the outer portions of the limbs as specified in claims 50 and 55, we agree with the Examiner that "it would have been obvious to try other locations on the bow limbs in order to maximize the dampening effects given these teachings as a matter of design choice." (Ans. 5).

It would have been apparent to one of ordinary skill in the art that the vibration damping device of Sims can be positioned in any appropriate location on the bow as long as it does not impede the various function of the bow while also absorbing vibration to the extent desired by the user. The

efficacy of vibration absorption can be verified by using the bow with the vibration damping device mounted thereon, and/or utilizing a microacceleration pick-up in a manner described in Yamagishi. In this regard, given that the vibration damping device of Sims are "[s]mall, effective [and] lightweight" (Sims, Abstract), there would be little or no concern with respect to their "mass or weight" which may influence any decision to mount such devices on the bow limbs or outer portions of the bow limbs.

Indeed, while we need not rely on the specific teaching in Izuta that "it has been proposed to attach a stabilizer to each limb of an archery bow," and that such attachment enables "the vibration of the bow … to be absorbed" (Izuta, col. 1, ll. 26-34), such disclosure demonstrates that one of ordinary skill in the art would have considered such placement on the limbs when mounting the vibration damping device of Sims, whether such devices be used as a substitute for the stabilizers, or used in conjunction with the stabilizers to further reduce vibration.

The Patent Owner also argues that the prior art fails to disclose the recess recited in claims 44 and 55 (App. Br. 15). However, we agree with the Examiner that Figure 3 of Sims clearly shows an embodiment where the component for modifying the decay patterns of vibrations includes a recess which allows mounting of the same (Ans. 4-5; *see* Sims, Fig. 3).

The claimed invention is merely a predictable variation which utilizes the prior art vibration damping devices of Sims according to their established function. With respect to placement of vibration damping devices, we agree with the Examiner that "it would have been obvious to try

other locations on the bow limbs in order to maximize the dampening effects given these teachings as a matter of design choice." (Ans. 5). "A person of ordinary skill is also a person of ordinary creativity, not an automaton." *KSR*, 550 U.S. at 421. Thus, we are not persuaded that the Examiner erred and sustain the rejection of claims 39, 44, 50-53 and 55 as unpatentable over Sims in view of Yamagishi, Izuta and Hoyt.

Rejection 2

The Examiner rejected claim 54 as unpatentable over Sims, Yamagishi, Izuta and Hoyt in view of Walk and Pucillo (Ans. 5-6). The Patent Owner relies on the arguments submitted with respect to independent claim 50 from which claim 54 depends (App. Br. 13). Thus, this rejection of claim 54 is sustained for the same reasons discussed *supra* relative to Rejection 1.

Rejection 3

The Examiner rejected claims 39, 50-53 and 55 as unpatentable over Lacoste in view of Yamagishi, Izuta and Hoyt, the Examiner relying on Lacoste for disclosing "a component for modifying the decay patterns of vibrations." (Ans. 6-8). Whereas Lacoste discloses such a device for a bat and similar implements, the Examiner relies on Yamagishi, Izuta and Hoyt in the same manner as set forth with respect to Rejection 1 (Ans. 8-10).

The Patent Owner summarily asserts that "Lacoste '380, like Hoyt and Izuta, is merely another example of an older paradigm stabilizer like product and the same arguments set forth above apply to Lacoste." (App. Br. 14).

However, we observe that Lacoste also discloses in Figure 31 (and Fig. 30), a damping member in the form of a plug 36 having a head and a stem made of an elastomeric, energy-absorbing material (Lacoste, Abstract, col. 8, ll. 16-19, Figs. 30 and 31) which is similar in construction and shape to the device disclosed in the specification of the '842 patent. It is this damping member of Lacoste shown in Figure 31 that was specifically relied upon by the Examiner in the rejection (Ans. 7).

The Patent Owner also asserts that the claimed invention would not be obvious because mounting of stabilizers on the outer portions of the limbs would not work (App. Br. 14). However, we find such argument unpersuasive for reasons similar to those discussed *supra* with respect to Rejection 1. Whereas the Patent Owner also argues that Lacoste, Izuta and Hoyt "failed to recognize the nature of how vibrations were better dampened, and further failed to understand how the location of a pair at the outer portions or outer ends of the bow could have such significantly better results," we are not provided with persuasive evidence that the dampening performance at the outer portions recited in claim 50 was unexpected. A party asserting unexpected results as evidence of nonobviousness has the burden of proving that the results are unexpected. *In re Geisler*, 116 F.3d 1465, 1469-70 (Fed. Cir. 1997). Attorney argument is no substitute for such evidence. *Enzo Biochem, Inc. v. Gen-Probe, Inc.*, 424 F.3d 1276, 1284 (Fed. Cir. 2005); *In re Schulze*, 346 F.2d 600, 602 (CCPA 1965).

Thus, in view of the above, we sustain the rejection of claims 39 and 50-53 as unpatentable over Lacoste in view of Yamagishi, Izuta and Hoyt. However, as to claim 55, we observe that the Examiner has not set forth an

adequate finding as to where the limitation "a recess in the head of the vibration decay pattern modifying component …" is disclosed. Thus, this rejection is not sustained with respect to claim 55.

Rejection 4

The Examiner rejected claim 54 as unpatentable over Lacoste, Yamagishi, Izuta and Hoyt in view of Walk and Pucillo (Ans. 10). The Patent Owner relies on the arguments submitted with respect to independent claim 50 from which claim 54 depends (App. Br. 15). Thus, this rejection of claim 54 is sustained for the same reasons discussed *supra* relative to Rejection 3.

Rejection 5

The Examiner rejected claims 44 and 55 as unpatentable over Lacoste, Yamagishi, Izuta and Hoyt in view of Sims, the Examiner relying on the embodiment shown in Figure 3 of Sims for disclosing "a recess in the head of the vibration decay pattern modifying component" (Ans. 10-11). The Patent Owner asserts that the recess limitation is not disclosed in the prior art (App. Br. 15). We find no basis for the Patent Owner's assertion and agree with the Examiner that Figure 3 of Sims clearly shows an embodiment where the component for modifying the decay patterns of vibrations includes a recess which allows mounting of the same (Sims, Fig. 3). Thus, we sustain the Examiner's rejection of claims 44 and 55 as unpatentable over Lacoste, Yamagishi, Izuta and Hoyt in view of Sims.

CONCLUSION

We affirm Rejections 1-5, except for Rejection 3 with respect to claim 55. Thus, claims 39, 44 and 50-55 remain rejected.

Requests for extensions of time in this ex parte reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

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