

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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NAUTILUS, INC.,  
Petitioner,

v.

ICON HEALTH & FITNESS INC.,  
Patent Owner.

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Case IPR2017-01363  
Patent 9,403,047 B2

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Before GEORGE R. HOSKINS, TIMOTHY J. GOODSON, and  
JAMES A. WORTH, *Administrative Patent Judges*.

GOODSON, *Administrative Patent Judge*.

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

## I. INTRODUCTION

### A. Background

Petitioner filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1–19 of U.S. Patent No. 9,403,047 B2 (Ex. 1001, “the ’047 patent”). Patent Owner filed a Preliminary Response to the Petition. Paper 6 (“Prelim. Resp.”).

We instituted an *inter partes* review on all of the challenged claims and asserted grounds. *See* Paper 7 (“Dec. on Inst.”). After institution, Patent Owner submitted a Patent Owner Response (Paper 17, “PO Resp.”) and Petitioner submitted a Petitioner Reply (Paper 21, “Reply”). A transcript of the oral hearing is included in the record. Paper 32 (“Tr.”). There are no motions pending in this proceeding.

The table below summarizes the instituted grounds as listed in the Order section of our Decision on Institution:

Reference(s)	Basis	Claim(s)
Sleamaker <sup>1</sup>	§ 103	1, 11–13
Sleamaker and Hanoun <sup>2</sup>	§ 103	2–5
Sleamaker and Six-Pak <sup>3</sup>	§ 103	6–10
Sleamaker, Six-Pak, and Hanoun	§ 103	14–19

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<sup>1</sup> U.S. Patent No. 5,354,251, issued Oct. 11, 1994, Ex. 1002.

<sup>2</sup> U.S. Patent Pub. No. US 2007/0232452 A1, published Oct. 4, 2007, Ex. 1003.

<sup>3</sup> *SPT-6 Six-Pack Trainer Owner’s Manual*, Ex. 1004. The parties both refer to this reference as Six-Pak. *See, e.g.*, Pet. 12; PO Resp. 1. That spelling is at odds with the reference itself, but to avoid confusion, we follow the parties’ convention.

Reference(s)	Basis	Claim(s)
Sleamaker and Kleinman <sup>4</sup>	§ 103	13
Sleamaker, Six-Pak, Hanoun, and Kleinman	§ 103	19
Six-Pak and Ehrenfried <sup>5</sup>	§ 103	1, 6–13
Six-Pak, Ehrenfried, and Hanoun	§ 103	2–5, 14–19
Six-Pak, Ehrenfried, and Kleinman	§ 103	13
Six-Pak, Ehrenfried, Hanoun, and Kleinman	§ 103	19

Dec. on Inst. 24–25.

This listing of the grounds differs in certain respects from the summary of grounds chart shown in the Petition. *See* Pet. 15–16. The reason for these differences is that, as we explained in our Decision on Institution, the summary chart in the Petition does not accurately reflect the actual arguments presented in the Petition. *See* Dec. on Inst. 18. For example, Petitioner’s summary chart indicates that the first ground challenges claims 1–5 and 11–13 based on the combination of Sleamaker and Hanoun. *See* Pet. 15. Yet Petitioner’s arguments against claim 1 and its dependent claims 11–13 cite only Sleamaker and do not cite Hanoun. *See id.* at 23–26, 31–33. Thus, the grounds listed in the Order section of the Decision on Institution reflected the challenges presented in the Petition’s actual arguments, not the summary charts or headings. *See* Dec. on Inst. 18. We noted in the Decision on Institution that we were not recasting or reformulating the Petitioner’s challenges, but simply conforming the

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<sup>4</sup> Int’l Pub. No. WO 2008/152627 A2, published Dec. 18, 2008, Ex. 1006.

<sup>5</sup> U.S. Patent No. 5,738,611, issued Apr. 14, 1998, Ex. 1005.

grounds to the arguments actually presented in the Petition. *Id.* at 18–19. Following institution, neither party has expressed any disagreement with the statement of the grounds set forth in the Decision on Institution.

There is only one disputed issue in this proceeding: whether Petitioner has established that Six-Pak qualifies as a prior art printed publication. *See* PO Resp. 1–13; Reply 1–12; Tr. 23:3–5 (Patent Owner agreeing that the sole contested issue is the public availability of Six-Pak). That issue is discussed in Section III.C. below. The remaining aspects of Petitioner’s challenges—i.e., all grounds that do not rely on Six-Pak—are uncontested. *See* PO Resp. 1 (beginning brief by arguing that Petitioner failed to meet its burden regarding Six-Pak’s public availability and therefore “any grounds relying on that reference should be resolved in Patent Owner’s favor”); *id.* at 13 (concluding brief by requesting that “the Board find patentable the claims involved in any grounds using the Six-Pak reference”).<sup>6</sup>

We have authority under 35 U.S.C. § 6. Petitioner bears the burden of proving unpatentability of the challenged claims, and the burden of persuasion never shifts to Patent Owner. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). To prevail, Petitioner must prove unpatentability by a preponderance of the evidence. *See* 35 U.S.C. § 316(e); 37 C.F.R. § 42.1(d). This Final Written Decision is

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<sup>6</sup> The scheduling order in this proceeding reminded Patent Owner that “any arguments for patentability not raised in the [Patent Owner Response] will be deemed waived.” Paper 8, 5; *see also In re NuVasive, Inc.*, 842 F.3d 1376, 1380–81 (Fed. Cir. 2016) (holding that a patentee waived an argument by presenting it only in the preliminary proceeding and not during the trial, despite the Board cautioning the patentee that arguments not briefed in the response would be deemed waived).

issued pursuant to 35 U.S.C. § 318(a) and 37 C.F.R. § 42.73. For the reasons that follow, we determine that Petitioner has shown by a preponderance of the evidence that claims 1–5 and 11–13 of the '047 patent are unpatentable, but has not shown that claims 6–10 and 14–19 are unpatentable. *See* 35 U.S.C. § 316(e).

*B. Related Matters*

Petitioner states that the parties are engaged in litigation and in proceedings at the Board that are unrelated to the '047 patent. Pet. 2. Patent Owner does not identify any related district court or Board proceedings. Paper 3, 2.

*C. The '047 Patent*

The '047 patent issued on August 2, 2016, from an application filed on December 24, 2014. Ex. 1001, (45), (22). The patent claims priority to a provisional application filed on December 26, 2013. *Id.* at (60), 1:6–10.

The '047 patent describes a cable exercise machine that includes a sensor tracking the position of a flywheel incorporated into a magnetic resistance mechanism. *Id.* at 5:4–7. An energy tracker receives position information from the sensor and resistance level, and based on those inputs, can determine the amount of calories burned during a pull or over the course of a workout. *Id.* at 5:22–28. The flywheel is arranged to resist movement of four different resistance cables, and to rotate only in a single direction and only when a pull force is exerted by the user, such that the position of the flywheel represents work done as part of the workout. *Id.* at 5:29–32, 54–60.



pull force on one of the cables causes the rotation of flywheel 17. *Id.* at 7:16–20. Flywheel assembly 16 includes arm 62 that contains at least one magnetic unit 63. *Id.* at 7:47–48. “As the arm 62 is rotated to or away from the proximity of the flywheel 17, the magnetic flux through which the flywheel 17 rotates changes, thereby altering the amount of rotational resistance experienced by the flywheel 17.” *Id.* at 7:50–54.

As can be seen in Figure 6, central shaft 19 is rigidly connected to body 74 of flywheel 17. *Id.* at 8:33–34. Bearing subassembly 76 is positioned to transfer a rotational load imparted in a first direction to flywheel 17. *Id.* at 8:34–36. Spool subassembly 18 is connected to at least one of the pull cables. *Id.* at 8:37–39. Flywheel 17 rotates with spool subassembly 18 in the first direction as the user pulls on the pull cables, but as spool subassembly rotates in the second direction imposed by counterweights 20, 22, bearing subassembly 76 is not positioned to transfer the rotational load from spool subassembly 18 to central shaft 19. *Id.* at 8:65–9:5. “Consequently, the flywheel 17 moves in just the first direction.” *Id.* at 9:7–8.

#### *D. Challenged Claims*

As noted above, Petitioner challenges all claims 1–19. Pet. 4. Claims 1, 14, and 19 are independent claims. Claim 1 is reproduced below, with labels [a]–[d] added by Petitioner for ease of reference:

1. A cable exercise machine, comprising:
  - [a] a first pull cable and a second pull cable incorporated into a frame;
  - [b] each of the first pull cable and the second pull cable being linked to at least one resistance mechanism; and

[c] the at least one resistance mechanism comprises a flywheel and a magnetic unit arranged to resist movement of the flywheel;

[d] wherein the flywheel is attached to a central shaft about which the flywheel is arranged to rotate and the central shaft supports multiple cable spools.

Ex. 1001, 12:48–58; *see also* Pet. 23–25 (reflecting labels for claim limitations).

## II. CLAIM CONSTRUCTION

Under the version of our rules applicable to this *inter partes* review,<sup>7</sup> claim terms in an unexpired patent are given their broadest reasonable construction in light of the specification. 37 C.F.R. § 42.100(b) (2016); *Cuozzo Speed Techs. LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016) (upholding the use of the broadest reasonable interpretation standard). In our Decision on Institution, we determined that resolution of the disputed issues at that stage did not require an express interpretation of any claim term. *See* Dec. on Inst. 6 (citing *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)). The parties’ post-institution briefing does not present any claim construction arguments or issues. We maintain our determination that no express claim construction is necessary to resolve the disputed issues.

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<sup>7</sup> The claim construction standard to be employed in *inter partes* reviews has changed for proceedings in which the petition was filed on or after November 13, 2018. *See* Changes to the Claim Construction Standard for Interpreting Claims in Trial Proceedings Before the Patent Trial and Appeal Board, 83 Fed. Reg. 51,340 (Nov. 13, 2018) (to be codified at 37 C.F.R. pt. 42).



### III. OBVIOUSNESS ANALYSIS

#### *A. Legal Standards*

In *Graham v. John Deere Co.*, 383 U.S. 1 (1966), the Supreme Court set out a framework for assessing obviousness under § 103 that requires consideration of four factors: (1) the “level of ordinary skill in the pertinent art,” (2) the “scope and content of the prior art,” (3) the “differences between the prior art and the claims at issue,” and (4) “secondary considerations” of nonobviousness such as “commercial success, long felt but unsolved needs, failure of others, etc.” *Id.* at 17–18; *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 407 (2007). In this case, the parties did not present any evidence relating to secondary considerations. We discuss the first three *Graham* factors below.

#### *B. Level of Ordinary Skill in the Art*

In determining the level of skill in the art, we consider the type of problems encountered in the art, the prior art solutions to those problems, the rapidity with which innovations are made, the sophistication of the technology, and the educational level of active workers in the field. *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986); *Orthopedic Equip. Co., Inc. v. U.S.*, 702 F.2d 1005, 1011 (Fed. Cir. 1983).

In our Decision on Institution, we adopted Petitioner’s proposal that an ordinarily skilled artisan at the time of the invention of the ’047 patent “would have had at least a bachelor’s degree in mechanical engineering or biomechanics and two years’ experience designing exercise equipment, or alternatively, an equivalent level of education and experience in product development and engineering regarding commercial fitness products.” Dec.

on Inst. 7 (quoting Pet. 7). The parties' post-institution briefing does not present any argument relating to the definition of the level of ordinary skill in the art. We maintain the definition of the level of ordinary skill in the art set forth in our Decision on Institution for the reasons stated therein. *See* Dec. on Inst. 7.

*C. Whether Six-Pak Is a Prior Art Printed Publication*

Many of Petitioner's challenges rely on Six-Pak. *See supra* § I.A. A threshold issue for each of these grounds is whether Petitioner has shown that Six-Pak is prior art to the '047 patent. Indeed, as noted above, the sole issue Patent Owner argues in its Patent Owner Response is that Petitioner failed to show that Six-Pak qualifies as a prior art printed publication. *See* PO Resp. 1–13; *see also* Tr. 23:3–9. We address this disputed threshold issue at the outset of our obviousness analysis.

*1. Summary of Six-Pak*

Six-Pak is an owner's manual for the SPT-6 Six-Pack Trainer. Ex. 1004, 1. Six-Pak includes assembly instructions, which provide numerous drawings of the Six-Pack trainer. *Id.* at 2–15. As relevant to the printed publication analysis, Six-Pak includes a notation on the lower right corner of the cover page stating "SPT-6 Rev0 Revision Date 10-7-2008." Ex. 1004, 1.

*2. Factual and Procedural Background Relating to Six-Pak's Status as a Printed Publication*

The following two sentences constitute the entirety of the Petition's argument regarding Six-Pak's status as prior art to the '047 patent: "Six-Pak was published October 7, 2008 and available online thereafter, making it prior art under §§ 102(a) and (b). Authentication and proof of the public

accessibility of Six-Pak through the Wayback Machine appears in the Affidavit of Christopher Butler.” Pet. 12 (citing Ex. 1010).<sup>8</sup>

The Butler affidavit referenced in the Petition conveys information about the Internet Archive and its service, the Wayback Machine. *See* Ex. 1010 ¶¶ 2–3. The Butler affidavit explains that the Wayback Machine allows visitors to search the Internet Archive’s web archives by website address. *Id.* ¶ 3. The archived data that is available in the Wayback Machine is compiled by “crawlers, which surf the Web and automatically store copies of web files, preserving these files as they exist at the point of time of capture.” *Id.* ¶ 4. The Butler affidavit describes how to relate the web address of a page on the Internet Archive to the date on which that page was archived. *Id.* ¶ 5. The Butler affidavit includes Exhibit A, which is a compilation of “printouts of the Internet Archive’s records of the HTML files or PDF files for the URLs and the dates specified in the footer of the printout (HTML) or attached coversheet (PDF).” *Id.* ¶ 6.

Exhibit A to the Butler affidavit includes two web pages. The first is an archived page from the site “tuffstufffitness.com” that appears to list

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<sup>8</sup> Apart from the Butler affidavit, Petitioner has suggested that the Rawls declaration also supports that Six-Pak is prior art. *See* Reply 5 (citing Ex. 1007 ¶ 96); Tr. 12:3–12. In the cited testimony, Mr. Rawls refers to the Butler affidavit as the basis for his understanding that Six-Pak is a printed publication. Ex. 1007 ¶ 96. Mr. Rawls further testifies that Six-Pak “is a printed publication that a skilled artisan would have reasonably relied upon in understanding the design, functionality, and operation of the Six-Pak Trainer.” *Id.* As Petitioner agreed at the hearing, that testimony adds nothing beyond the Butler affidavit on the issue of whether and when Six-Pak became publicly accessible. *See* Tr. 12:13–23. Indeed, Mr. Rawls agreed during his deposition that he made no independent determination as to whether Six-Pak was publicly available, and stated that he had not seen Six-Pak until this case began. Ex. 2002, 54:11–55:11.

assembly manuals for exercise equipment. Among the listed assembly manuals is that of the “SPT-6 Six-Pak Trainer.” The second is another archived page from the “tuffstufffitness.com” site that appears to be identical to Six-Pak relied on in this case. According to the URLs listed in these printouts and Mr. Butler’s explanation of how the URL address reflects the archive date, both of these web pages were archived on December 26, 2010. *Id.* ¶ 5.

In our Decision on Institution, we considered arguments from Patent Owner that Petitioner failed to produce sufficient proof that Six-Pak was publicly accessible in the prior art period. *See* Dec. on Inst. 9–13. We determined, based on the record at that stage of the proceeding, that Petitioner made a sufficient threshold showing that Six-Pak was publicly accessible before the priority date claimed in the ’047 patent. *Id.* at 10. In doing so, we emphasized the preliminary nature of our determination: “Patent Owner’s criticisms of Petitioner’s evidence may have merit, and Patent Owner is free to continue to challenge Petitioner’s showing on this issue during trial. However, at this stage, we need only decide whether Petitioner has shown a reasonable likelihood of prevailing in its challenge.” *Id.* We invited the parties to develop the evidentiary record further on the issue of Six-Pak’s status as a prior art printed publication:

We reiterate that our determination regarding the sufficiency of Petitioner’s evidence is for purposes of this Decision only and does not signify that Petitioner’s evidence would be adequate under the preponderance standard applicable at the Final Written Decision stage with a full record. *See* 35 U.S.C. § 316(e); *see also TriVascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016) (“[T]he Board is not bound by any findings made in its Institution Decision. At that point, the Board is considering the matter preliminarily without the benefit of a full record. The

Board is free to change its view of the merits after further development of the record, and *should do so* if convinced its initial inclinations were wrong.”). The parties may further develop the evidentiary record during the course of trial on the issue of whether and when Six-Pak became publicly accessible. *See Genzyme Therapeutic Prods. Ltd. P’ship v. Biomarin Pharma. Inc.*, 825 F.3d 1360, 1367 (Fed. Cir. 2016) (“The purpose of the trial in an *inter partes* review proceeding is to give the parties an opportunity to build a record by introducing evidence—not simply to weigh evidence of which the Board is already aware.”).

*Id.* at 13.

Despite this invitation, there has been no further development of the evidentiary record on this issue. For reasons Petitioner declined to explain at the hearing, Petitioner did not present any further evidence on the public accessibility of Six-Pak after the Decision on Institution. *See* Tr. 20:24–21:9. Aside from conducting a cross-examination of Mr. Rawls that produced a few lines of testimony relevant to the public accessibility of Six-Pak as discussed above, Patent Owner also did not present any evidence on this issue. Thus, the evidence available after trial on the issue of whether Six-Pak qualifies as a printed publication is effectively the same as in the preliminary phase of this proceeding. The parties’ post-institution briefs have been devoted to presenting legal arguments regarding the sufficiency or insufficiency of the evidentiary showing Petitioner initially presented with its Petition.

Specifically, Patent Owner argues that the Butler affidavit and the attached website printouts do not show that Six-Pak was publicly accessible because they do not establish that persons interested and ordinarily skilled in this subject matter exercising reasonable diligence could have located the document in the prior art period. *See* PO Resp. 7–9. According to Patent

Owner, Petitioner’s evidence only establishes “that at a single time, a single entity (the Wayback Machine) accessed the PDF through a non-targeted, brute-force process of ‘crawlers . . . surf[ing] the Web and automatically stor[ing] copies of web files.’” *Id.* at 9 (quoting Ex. 1010 ¶ 4). Patent Owner discusses Federal Circuit cases and Board decisions that it relies on to support its argument that Petitioner’s showing is insufficient. *Id.* at 10–12. Patent Owner also asserts that Petitioner provided no evidence that anyone in the interested public actually accessed Six-Pak, that the website hosting Six-Pak was indexed or was a prominent forum for discussing exercise machines, or that a skilled artisan would have been able to locate or access Six-Pak. *Id.* at 12.

In its Reply, Petitioner responds that the TuffStuff webpage attached to the Butler affidavit provided a listing of products, including the Six-Pack trainer, and allowed persons viewing that page to download Six-Pak. Reply 2. The webpage “shows an easily navigable site of a fitness company with a home page link, a page for products, a link to a downloadable copy of the Six-Pack manual, and a 2010 copyright date. The manual contains a ‘rev date’ of 2008, which further supports that the document was available before 2012.” *Id.* at 3–4. Petitioner cites several Federal Circuit and Board decisions that it argues support its position, and argues that Patent Owner’s cases are distinguishable. *Id.* at 5–10.

*3. Legal Standards Governing Whether a Reference Qualifies as a Printed Publication*

“In an IPR, the petitioner bears the burden of establishing by a preponderance of the evidence that a particular document is a printed publication.” *Nobel Biocare Servs. AG v. Intradent USA, Inc.*, 903 F.3d 1365, 1375 (Fed. Cir. 2018) (citing *Medtronic, Inc. v. Barry*, 891 F.3d 1368,

1380 (Fed. Cir. 2018)). “A reference will be considered publicly accessible if it was disseminated or otherwise made available to the extent that persons interested and ordinarily skilled in the subject matter or art exercising reasonable diligence can locate it.” *Medtronic*, 891 F.3d at 1380 (internal quotation marks and citations omitted). The Federal Circuit has interpreted the printed publication provision “broadly, finding that even relatively obscure documents qualify as prior art so long as the relevant public has a means of accessing them.” *GoPro, Inc. v. Contour IP Holding LLC*, \_\_ F.3d \_\_, 2018 WL 5660650, at \*2 (Fed. Cir. Nov. 1, 2018) (citing *Jazz Pharm., Inc. v. Amneal Pharm., LLC*, 895 F.3d 1347, 1354–60 (Fed. Cir. 2018)).

*4. Analysis of Whether Petitioner Established that Six-Pak Qualifies as a Prior Art Printed Publication*

In our view, whether Petitioner has established that Six-Pak is a printed publication is a close question. Although Petitioner relies entirely on two archived webpages and an affidavit providing basic background information on the Wayback Machine, we acknowledge that there is some evidence of public accessibility within that limited showing. First, there is the “SPT-6Rev0 Revision Date 10-7-2008” notation on the cover of Six-Pak. Ex. 1004, 1. The Federal Circuit has explained that “the contents of a document can be relevant to the question of whether the document was publicly accessible.” *C.R. Bard, Inc. v. Angiodynamics, Inc.*, \_\_ Fed. App’x \_\_, 2018 WL 4677441, at \*4 (Fed. Cir. Sept. 28, 2018) (nonprecedential). In *Nobel Biocare*, the court held that the “March 2003” date listed on a reference’s cover was not dispositive of the date of public accessibility, but that it was relevant evidence supporting the Board’s finding that the reference was publicly accessible at a conference that took place in March 2003. *Nobel Biocare*, 903 F.3d at 1376. Here, the notation on the cover of

Six-Pak tends to show that the document was revised in October 2008, which is before the '047 patent's claimed priority date in December 2013. Ex. 1004, 1; Ex. 1001, (60). This notation does not indicate whether or when the document was published, but it is one piece of evidence to consider in the public accessibility analysis.

Second, the presence of Six-Pak on an archived version of TuffStuff's website indicates that the reference was available for capture by the Wayback Machine's "crawlers" in December 2010. Ex. 1010 ¶¶ 4–5, Ex. A. We note Patent Owner's argument that when it entered the URL shown in the footer of the first webpage attached to the Butler affidavit into an internet browser, it received an error message. PO Resp. 7–8. However, as we explained in the Decision on Institution, it appears that the URL in the footer is incomplete because there was insufficient space in the footer. *See* Dec. on Inst. 11 n.6. We were able to navigate to the webpage at issue using the Wayback Machine, and we listed the complete URL address in our Decision on Institution. *Id.* We find that Petitioner has shown that both of the webpages in Exhibit A to the Butler affidavit were archived by the Wayback Machine in December 2010.

Third, the archived TuffStuff website on which Six-Pak was available appears to be a commercial website providing information about TuffStuff's products. Ex. 1010, Ex. A.

However, even with these considerations in mind, we still find Petitioner's evidence to be deficient. What we find lacking is evidence that persons interested in exercise equipment knew of the TuffStuff website or would have been able to locate it through reasonable diligence. Even assuming that the two archived webpages captured by the Wayback Machine



show that Six-Pak was available for anyone to view or download from the TuffStuff website,<sup>9</sup> “[p]ublic accessibility’ requires more than technical accessibility.” *Acceleration Bay, LLC v. Activision Blizzard Inc.*, \_\_\_ F.3d \_\_\_, 2018 WL 5795976, at \*5 (Fed. Cir. Nov. 6, 2018) (affirming Board’s determination that a reference uploaded to a university website in the prior art period was not a printed publication when it was not meaningfully indexed to allow an ordinarily skilled person to locate the reference using the website’s search function). Petitioner has presented no evidence, in the Butler affidavit or elsewhere in the record, that the TuffStuff website could have been located through a reasonably diligent internet search.

There is also no evidence in the record that persons interested in exercise machines knew of either the Six-Pack trainer or TuffStuff as a source of exercise equipment, such that they would have had reason to search the internet for information about TuffStuff or Six-Pak. *See C.R. Bard*, 2018 WL 4677441, at \*4 (vacating Board’s determination that a product manual was a printed publication based on dates on the reference and a declaration stating that the manual was distributed and that users could request copies, because it was “unclear whether, even if a member of the relevant public could have requested it, there is any evidence that they would have had a reason to do so”).

We find *Blue Calypso, LLC v. Groupon, Inc.*, 815 F.3d 1331 (Fed. Cir. 2016) to be particularly instructive. There, the Federal Circuit upheld

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<sup>9</sup> Petitioner argues that the Butler affidavit shows that the TuffStuff website and Six-Pak were available to anyone on the internet (*see* Reply 5; Tr. 17:18–18:10), but the affidavit itself only states that the pages were captured by the Wayback Machine’s crawlers. Ex. 1010 ¶ 4. The affidavit does not state that the crawlers capture only webpages that are publicly available. *Id.*

the Board's determination that a petitioner failed to carry its burden to show that an interested party exercising reasonable diligence would have located the reference, which was a report available on a graduate student's personal webpage. *Id.* at 1349. As in this case, there was no evidence indicating that the reference was viewed or downloaded, and no evidence that an ordinarily skilled artisan would know of the website on which the reference was located. *Id.* at 1349–1350. In another commonality with this case, the *Blue Calypso* record was “devoid of any evidence that a query of a search engine before the critical date, using any combination of search words, would have led to [the reference in question] appearing in the search results.” *Id.* at 1350.

The facts here parallel those of *Blue Calypso*, except for the nature of the website on which the reference was stored: TuffStuff's website is commercial, while *Blue Calypso* concerned the personal website of a graduate student. Common experience suggests that the commercial website of an exercise equipment supplier would be more readily locatable than the personal website of a graduate student. Nevertheless, Petitioner has provided no evidence that persons interested in exercise equipment knew of the TuffStuff website or were familiar with TuffStuff as a source of exercise equipment. Indeed, what little evidence is available in the record on this issue tends to show that skilled artisans were not aware of TuffStuff or its Six-Pack trainer. When Mr. Rawls, Petitioner's declarant, was asked at his deposition to name commercial fitness equipment companies, he listed several, but TuffStuff was not among them. *See* Ex. 2002, 83:15–25. Mr. Rawls also testified that he has never seen the Six-Pack trainer in

person, and that the first time he saw Six-Pak was in connection with this case. *Id.* at 87:24–88:4, 55:9–11.

The evidentiary deficiency regarding the public accessibility of Six-Pak could have been shored up in myriad ways. Petitioner could have provided evidence that TuffStuff was known among those interested in exercise equipment as an exercise equipment supplier, that Six-Pak or TuffStuff’s website was locatable through keyword searching on the internet during the prior art period, that TuffStuff’s website received traffic from interested persons in the art during the prior art period, that Six-Pak was actually viewed or downloaded from TuffStuff’s site during the prior art period by interested persons in the art, or that Six-Pak was distributed in some other way during the prior art period, such as accompanying sales of the Six-Pack trainer. The absence of such evidence is made more conspicuous by the procedural history of this case, in which Six-Pak’s status as a printed publication was one of the few contested issues in the preliminary phase and the Decision on Institution invited additional development of the evidentiary record on this issue. *See supra* § III.C.2.

We have considered the cases Petitioner cites, but we find that they do not militate in favor of a determination that Six-Pak is a printed publication on the facts presented here. The case Petitioner relies on most heavily is *Voter Verified, Inc. v. Premier Election Solutions, Inc.*, 698 F.3d 1374, 1380 (Fed. Cir. 2012). There, the Federal Circuit affirmed a district court’s determination that an article posted on a public website called Risks Digest was publicly available because persons skilled in the relevant field knew of the Risks Digest site and an interested researcher would have found the article using that site’s search functions and reasonable diligence. *Id.* at

1380–81. A critical distinction from this case is that in *Voter Verified*, “the uncontested evidence indicate[d] that a person of ordinary skill interested in electronic voting would have been independently aware of the Risks Digest as a prominent forum for discussing such technologies.” *Id.* at 1381. Here, in contrast, there is no evidence that skilled artisans or persons interested in exercise equipment were aware of the TuffStuff website.

The Board decisions Petitioner cites are inapposite because they addressed references for which public accessibility was undisputed (*Samsung Elecs. Co. Ltd. v. Rosetta-Wireless Corp.*, Case IPR2016-00622, slip op. at 64 (PTAB Aug. 21, 2017) (Paper 48); *Mitsubishi Cable Indus., Ltd. v. Goto Denshi Co., Ltd.*, Case IPR2015-01108, slip op. at 5–6 (PTAB Oct. 25, 2016) (Paper 20)) or there was additional evidence beyond an archived website to support public accessibility (*Advanced Micro Devices, Inc. v. LG Elecs. Inc.*, Case IPR2015-01409, slip op. at 13–14 (PTAB Dec. 27, 2016) (Paper 28)). In *Johns Manville Corp. v. Knauf Insulation, Inc.*, Case IPR2016-00130, slip op. at 20–21 (PTAB May 8, 2017) (Paper 35), the Wayback Machine evidence was discussed in the context of a motion to exclude for lack of authentication. Here, authenticity of the archived webpages is not disputed. *See* Tr. 23:11–15. The Board’s institution decisions that Petitioner cites (*see* Reply 6 n.1) do not move us because, as the Decision on Institution in this case explains, evidence that is sufficient to show a reasonable likelihood of prevailing for institution purposes is not necessarily sufficient to satisfy the Petitioner’s ultimate burden to show unpatentability by a preponderance of the evidence after trial. *See* Dec. on Inst. 13.

### 5. Conclusion

For the reasons given above, we determine that Petitioner has not established that Six-Pak qualifies as a prior art printed publication. This determination disposes of all of Petitioner's grounds that rely at least in part on Six-Pak.

#### *D. Summary of the Remaining Prior Art References*

##### *1. Sleamaker*

Sleamaker is titled "Multifunction Exercise Machine with Ergometric Input-Responsive Resistance." Ex. 1002, [54]. Figures 1 and 7 are reproduced below:

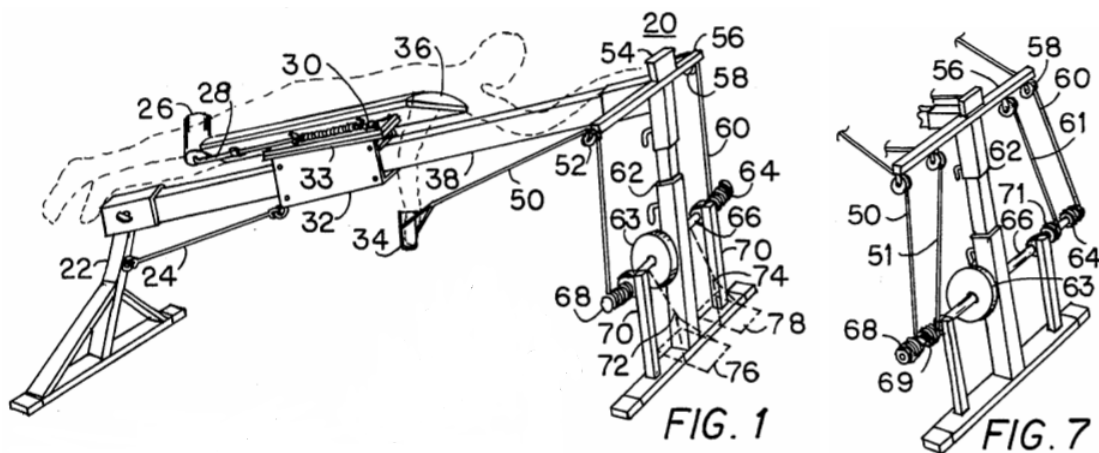


Figure 1 is a perspective view of multifunction exercise machine 20 with front stanchion post 62, rear stanchion assembly with post 22, and monorail 38 secured between the stanchions. *Id.* at 3:23–27, 5:4–11. Figure 7 is a partial perspective view showing the front stanchion of an alternate embodiment. *Id.* at 3:46–49.

As can be seen in Figure 1, attached to front stanchion cross bar 56 are pulleys 52 and 58, which receive pull cables 50 and 60. *Id.* at 5:20–21. The cables have means for attaching handles 34 at a first end, and “are secured, at a second end, to an ergometric variable input-responsive

resistance assembly employing a flywheel 63 connected to a rotating shaft 66 propelled by the pull cables 50 and 60 attached to the rotating shaft by spring-loaded retracting one-way clutch drivers 68 and 64 respectively.” *Id.* at 5:24–29. Monitor 54, mounted in the middle of front stanchion cross bar 56, “records the level of activity based upon electronic signals from standard sensors which measure the number of turns and the speed of turning of the rotating shaft or the flywheel, which information is translated electronically by standard electronic circuitry into speed and distance and energy output levels.” *Id.* at 5:46–53.

The embodiment shown in Figure 7 includes “an additional pair of pull cables 51 and 61 winding around spring-loaded returning one-way drivers 69 and 71 on the rotating shaft 66.” *Id.* at 6:57–60.

## 2. *Hanoun*

Hanoun discloses a computerized spinning exercise system that includes a sensing system to count rotations of a flywheel and a computer that processes the count of rotations and a selected resistance setting to generate user performance data. Ex. 1003, (54), (57). Rotations of the flywheel can be counted “by using an optical position sensor to measure changes in the rotation of the flywheel” or “by using a magnet applied to the flywheel and a Hall-effect sensor applied to a stationary element.” *Id.* ¶ 64.

## 3. *Kleinman*

Kleinman relates to an exercise machine that allows a user to perform a plurality of exercises. Ex. 1006, 1:7–9. The portion of Kleinman’s disclosure that is of primary relevance to Petitioner’s challenges here is its description of a counterweight to rewind a cable around a reel after the user releases the cable. *See id.* at 12:23–25, Fig. 10.

*E. Sleamaker-Led Obviousness Grounds*

*1. Claims 1 and 11–13*

We find persuasive Petitioner’s contentions that Sleamaker teaches each of the limitations of claim 1. *See* Pet. 23–26. Specifically, we find that Sleamaker teaches limitation [a] because Sleamaker’s pair of pull cables 50 and 60 correspond to the claimed first and second pull cables, and Sleamaker’s front stanchion cross bar 56, stanchion post 62, and side supports 70 correspond to the claimed frame. Ex. 1002, 5:20–21, Fig. 1; *see also* Pet. 23. We find that Sleamaker teaches limitation [b] because Sleamaker describes that pull cables 50 and 60 are secured to a resistance mechanism — namely, “an ergometric variable input-responsive resistance assembly employing a flywheel 63 connected to a rotating shaft 66.” Ex. 1002, 5:20–27; Pet. 24. We find that Sleamaker teaches limitation [c] because Sleamaker’s ergometric variable input-responsive resistance assembly includes flywheel 63, and Sleamaker discloses that flywheel assemblies can include “a magnetic (eddy current) three wheeled interconnected system used as the ergometric input-responsive resistance means on the rotating shaft.” Ex. 1002, 7:50–63; Pet. 24–25. Finally, we find that Sleamaker teaches limitation [d] because Sleamaker’s flywheel 63 is attached to rotating shaft 66, which corresponds to the claimed central shaft, and the claimed multiple spools are shown where pull cables 51 and 61 are wound around shaft 66. Ex. 1002, 5:24–29, 6:57–60, Fig. 7; Pet. 25–26.

Claim 11 depends from claim 1 and adds that “the multiple cable spools are attached to at least one of the first pull cable, the second pull cable, a third pull cable, and a fo[u]rth pull cable.” Ex. 1001, 13:25–28. We

find persuasive Petitioner's contention that Sleamaker's Figure 7 discloses the claimed arrangement, insofar as cables 50, 51, 60, 61 are attached to the multiple spools wrapped around shaft 66. Ex. 1002, Fig. 7; *see also* Pet. 31.

Claim 12 depends from claim 1 and additionally recites that “the flywheel is arranged to rotate in just a single direction while at least one of the multiple spools are arranged to rotate in the single direction and an opposite direction.” Ex. 1001, 13:29–32. We find that Sleamaker teaches this limitation because it discloses that flywheel 63 on rotating shaft 66 is “propelled by the pull cables 50 and 60 attached to the rotating shaft by spring-loaded retracting one-way clutch drivers 68 and 64 respectively.” Ex. 1002, 5:27–29; *see also* Pet. 32. We credit Mr. Rawls's testimony that an ordinarily skilled artisan would understand that “spools on the same central shaft as the flywheel would rotate in the same single direction as the flywheel when the cables are pulled and then rotate in the opposite direction to rewind the cables while the flywheel continues to rotate in the single direction.” Ex. 1007 ¶ 153. As Mr. Rawls persuasively explains, “[t]hat is the purpose of having ‘one-way clutch drivers’ inside of the spools.” *Id.*

Claim 13 depends from claim 12 and adds that “the multiple spools are linked to at least one counterweight.” Ex. 1001, 13:33–34. We find that Sleamaker discloses that return springs in the clutch drivers cause pull cables 50 and 60 to rewind. Ex. 1001, 6:7–11; *see also* Pet. 32–33. We credit the testimony of Mr. Rawls, which is supported by citation to documentary evidence, that a counterweight attached to a spool was a known alternative to a spring-loaded clutch driver. Ex. 1007 ¶ 154. We further credit Mr. Rawls's testimony that a counterweight and a spring clutch are among a finite number of options for rewinding cable spool, and



that using a counterweight in place of a spring clutch would provide predictable results. *Id.* ¶ 157. Thus, we find persuasive Petitioner’s contention that claim 13 would have been obvious to a person of ordinary skill in the art in view of Sleamaker. *See* Pet. 32–33.

In a backup position, Petitioner argues that claim 13 would have been obvious based on Sleamaker and Kleinman. *See* Pet. 69–70. Specifically, Petitioner argues that to the extent a reference is needed that expressly discloses a counterweight, Kleinman fills that gap. *See id.* We find persuasive Petitioner’s contention that Kleinman teaches a counterweight to rewind cable while a flywheel rotates in only a first direction. *See* Ex. 1006, 12; Pet. 69–70. We further find that Petitioner has presented adequate reasoning for combining Sleamaker and Kleinman, insofar as Petitioner contends that “[i]ncorporating this feature of Kleinman would be one of a finite number of ways to cause cable [to] rewind, and would be an example of using a known element in a known way to reach an entirely predictable result.” *Id.* at 70 (citing Ex. 1007 ¶ 255).

## 2. *Claims 2–5*

Petitioner contends that claims 2–5 would have been obvious over Sleamaker in view of Hanoun. Pet. 26–31. Petitioner argues that a skilled artisan would have been motivated to combine Sleamaker with Hanoun as proposed in its challenges to these claims because by 2013, it was known that exercise machines should track user performance and the market demanded such features. *Id.* at 19 (citing Ex. 1007 ¶¶ 44–50, 117–118). Sleamaker discloses electronics to track user performance (*see* Ex. 1002, 5:46–55), but according to Petitioner, “because the direction of its invention was not focused on the details of such electronics, a POSITA would have

looked to Hanoun for a complimentary and more comprehensive system to measure performance in a flywheel-based exercise system.” Pet. 19 (citing Ex. 1007 ¶¶ 117–118). We find that Petitioner’s stated reasoning for combining Sleamaker and Hanoun is supported by rational underpinnings.

Claim 2 depends from claim 1 and recites that the machine “further compris[es] a sensor arranged to collect information about a position of the flywheel.” Ex. 1001, 12:59–61. We find that Sleamaker discloses that monitor 54 records activity level based on signals from sensors that measure the number of turns of the flywheel. Ex. 1002, 5:46–55. We find that Hanoun discloses “an optical position sensor to measure changes in the rotation of the flywheel.” Ex. 1003 ¶ 64. Thus, we find persuasive Petitioner’s contention that claim 2 would have been obvious based on the cited combination. *See* Pet. 26–27.

Claim 3 depends from claim 2 and adds that the machine “further compris[es] a counter in communication with the sensor and arranged to track a number of rotations of the flywheel.” Ex. 1001, 12:62–64. As noted above in connection with claim 2, we find that Sleamaker teaches that monitor 54 records activity level based on sensors that measure the number of turns of the flywheel. Ex. 1002, 5:46–55. We further find that Hanoun teaches a sensing system that counts rotations of the flywheel. Ex. 1003 ¶ 67. Thus, we find persuasive Petitioner’s contention that claim 3 would have been obvious based on the cited combination. *See* Pet. 27–28.

Claim 4 depends from claim 3 and further recites that “the counter is arranged to provide the number as an input to an energy tracker.” Ex. 1001, 12:65–67. We find that Hanoun teaches the subject matter of this claim insofar as it describes that “the energy exerted by the person may be

determined from the resistance setting and the count of rotations.” Ex. 1003 ¶ 66, Fig. 8; *see also* Pet. 29–30. Claim 5 depends from claim 4 and recites that “the energy tracker is arranged to receive as an input a level of magnetic resistance exerted on the flywheel with the magnetic unit.” Ex. 1001, 13:1–4. We find that Hanoun teaches the subject matter of this claim because it describes determining the amount of energy exerted from the resistance setting, and further describes that the resistance setting can be sensed or assumed based on user-selected settings. Ex. 1003 ¶¶ 65–66; *see also* Ex. 1007 ¶ 150. Thus, we are persuaded by Petitioner’s arguments that claims 4 and 5 would have been obvious based on Sleamaker and Hanoun. *See* Pet. 29–31.

### *3. Claims 6–10 and 14–19*

Petitioner contends that claims 6–10 would have been obvious over Sleamaker in view of Six-Pak. Pet. 33–40. Petitioner further contends that claims 14–19 would have been obvious over Sleamaker in view of Six-Pak and Hanoun. *Id.* at 41–47. These challenges fail because they rely on Six-Pak, and as discussed in Section III.C. above, Petitioner has not carried its burden to show that Six-Pak is a prior art printed publication.

### *4. Conclusions Regarding Sleamaker-Led Obviousness Grounds*

We determine that Petitioner has proven by a preponderance of the evidence that claims 1 and 11–13 would have been obvious based on Sleamaker, that claim 13 would have been obvious based on Sleamaker and Kleinman, and that claims 2–5 would have been obvious based on Sleamaker and Hanoun. We further determine that Petitioner has not shown by a preponderance of the evidence that claims 6–10 would have been

obvious based on Sleamaker and Six-Pak, nor that claims 14–19 would have been obvious based on Sleamaker, Six-Pak, and Hanoun.

*F. Six-Pak Led Obviousness Grounds*

Each of Petitioner’s remaining grounds relies on Six-Pak in combination with other secondary references. *See* Pet. 47–70. Because Petitioner has not established that Six-Pak qualifies as a prior art printed publication (*see supra* § III.C), we determine that Petitioner has not shown that the challenged claims are unpatentable on these asserted grounds. In particular, Petitioner has not shown that Six-Pak and Ehrenfried render obvious any of claims 1 and 6–13; that Six-Pak, Ehrenfried, and Hanoun render obvious any of claims 2–5 and 14–19; that Six-Pak, Ehrenfried, and Kleinman render obvious claim 13; or that Six-Pak, Ehrenfried, Hanoun, and Kleinman render obvious claim 19.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that Petitioner has shown that claims 1–5 and 11–13 of U.S. Patent No. 9,403,047 B2 are unpatentable;

FURTHER ORDERED that Petitioner has not shown that any of claims 6–10 and 14–19 of U.S. Patent No. 9,403,047 B2 is unpatentable; and

FURTHER ORDERED that parties to the proceeding seeking judicial review of this Final Decision must comply with the notice and service requirements of 37 C.F.R. § 90.2.

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Patent 9,403,047 B2

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