

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PACIFIC SURF DESIGNS, INC.,
Petitioner,

v.

Owner of U.S. Patent 6,491,589.

Case IPR2016-01674
Patent 6,491,589 B1

Before PHILLIP J. KAUFFMAN, WILLIAM V. SAINDON, and
JASON W. MELVIN, *Administrative Patent Judges*.

MELVIN, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
37 C.F.R. § 42.108

I. INTRODUCTION

Petitioner, Pacific Surf Designs, Inc., filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1, 3, 13, 15–17, 24–27, 29–38, 40–43, 50, and 54–55 of U.S. Patent No. 6,491,589 B1 (Ex. 1001, “the ’589 patent”).¹ No Preliminary Response was filed. Pursuant to 35 U.S.C. § 314 and 37 C.F.R. § 42.4(a), we have jurisdiction to determine whether to institute review.

An *inter partes* review may not be instituted unless “the information presented in the petition . . . and any response . . . shows that there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.” 35 U.S.C. § 314(a). For the reasons set forth below, we conclude that the Petition does not show a reasonable likelihood that Petitioner would prevail in establishing the unpatentability of any challenged claim. We therefore do not institute *inter partes* review.

A. RELATED MATTERS

Petitioner identifies the following pending judicial matter as relating to the ’589 patent: *Flowrider Surf, Ltd. v. Pacific Surf Designs, Inc.*, Case No. 15cv1879 (S.D. Cal.). Pet. 1.

B. REAL PARTIES IN INTEREST

Petitioner identifies no additional real party-in-interest. Pet. 1. Although the patent owner of record appears to be Surf Park PTE. LTD., that entity has not filed a paper in this proceeding. Rather, both Surf Waves, Ltd., and FlowRider Surf, Ltd. filed mandatory notices, claiming to be the

¹ See Certificate of Correction at Ex. 1001, 26–27.

patent owner and “exclusive worldwide licensee,” respectively. Papers 5, 8; *see* Order (Paper 9). Although we noted in our October 31, 2016, Order that “the true patent owner must file the required papers to represent its interest in in this proceeding” (Paper 9), no such paper was filed. Patent Owners are not, however, required to file a Preliminary Response (*see* 37 C.F.R. § 42.107(a)), so we proceed to consider the merits of the Petition.

C. THE ’589 PATENT

The ’589 patent is titled “Mobile Water Ride Having Sluice Slide-Over Cover,” was filed Aug 2, 2000, issued December 10, 2002, and claims priority to a provisional application filed August 2, 1999. Ex. 1001, [54], [22], [45], 1:6–8. The ’589 patent describes two improvements in water rides: nozzles having “slide-over covers for ensuring the safety of riders” (*id.* at [57], 2:10–22); and a transportable design (*id.* at [57], 2:5–9).

The ’589 patent describes that water is introduced to a ride through nozzles, and that the ride surface sloping up away from the nozzles causes riders to move towards the nozzles, thus requiring a horizontal transition surface “to provide an energy-absorbing buffer between the upward sloped ride surface and the lower end of the ride surface.” *Id.* at 1:22–48. To eliminate or minimize that transition surface, the ’589 patent teaches a “slide-over cover” that “enables riders to safely slide over the nozzle without risk of injury or interference with ride operation.” *Id.* at 8:40–47 (reference number omitted); *see id.* 8:39–12:26. Figure 3A is reproduced below:

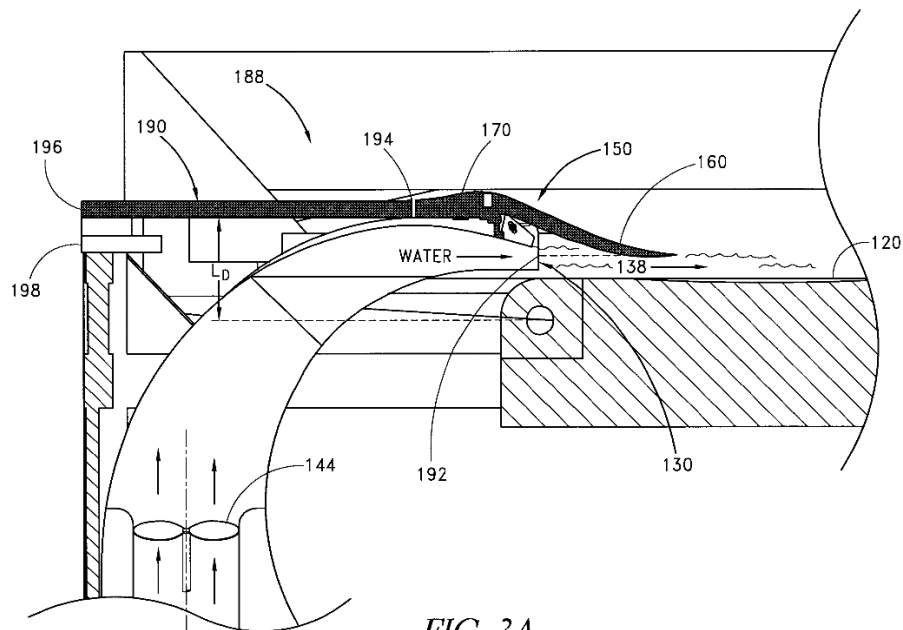


Figure 3A depicts a preferred embodiment of an “injection nozzle assembly” in which water from a pump 144 moves through nozzle 130 to the ride surface 120; the nozzle has a slide-over cover 150, which itself includes a tongue 160 that contacts the water exiting the nozzle. *Id.* at 10:19–50. Biasing or urging the tongue portion down towards the water exiting the nozzle “reduces or minimizes the possibility of a rider catching a finger underneath the pad 150 (or tongue 160) and sluice gate [i.e., nozzle] 130.” *Id.* at 10:38–50.

The '589 patent also describes an aspect of water rides such that the rides may be transported more easily. *Id.* at 12:27–16:40. To that end, the '589 patent discloses using a set of transportable modules that “can be quickly assembled on-site without the need for a time-consuming long, drawn out construction process.” *Id.* at 12:44–50. Figure 4A is reproduced below:

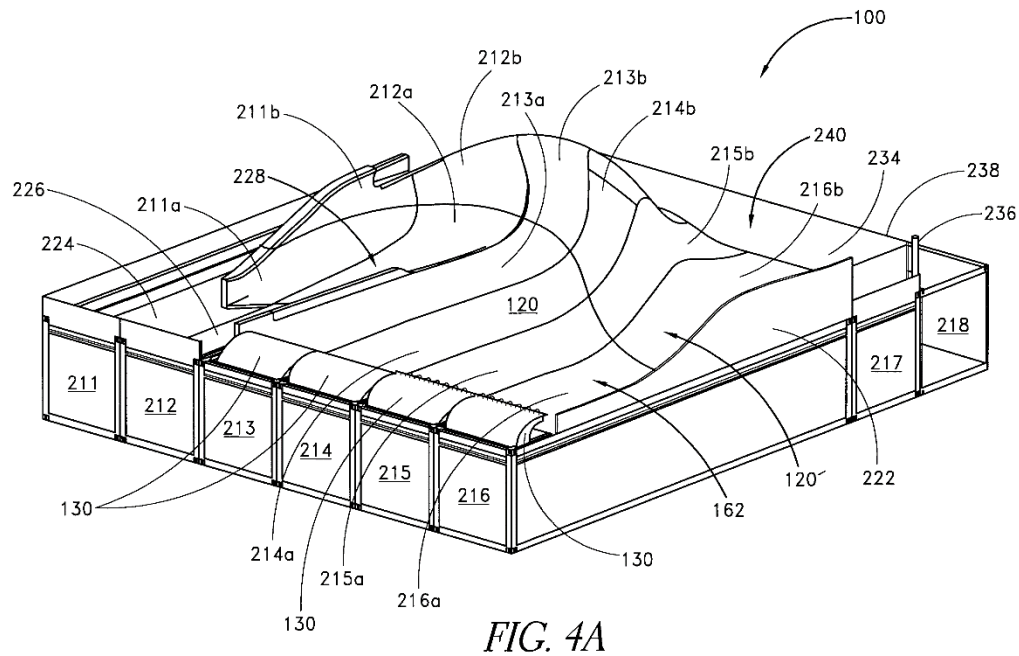


Figure 4A depicts a water ride attraction 100 formed from “a plurality of shippable modules, units or containers 211, 212, 213, 214, 215, 216, 217, and 218.” *Id.* at 12:62–65. Four of the modules depicted in Figure 4A contain a circulation pump “in fluid communication with a respective flow forming nozzle 130.” *Id.* at 13:25–28. Various portions of the ride surface are associated with certain modules such that the connected modules form an overall ride surface. *See id.* at Fig. 4A, 13:39–14:9.

D. CHALLENGED CLAIMS

Petitioner challenges 1, 3, 13, 15–17, 24–27, 29–38, 40–43, 50, and 54–55 of the '589 patent. Pet. 1. Claims 1, 17, 24, 31, 37, 38, 42, and 50 are independent. Ex. 1001, 16:53–20:31. Claims 1 and 31 (reproduced below) are illustrative:

1. A nozzle assembly for a water ride attraction, comprising:
a nozzle having an outlet aperture adapted to emit a jet of water onto a ride surface; and

a nozzle cover comprising a padded material substantially covering said nozzle and including a flexible tongue which is biased downward against the flow of the water to prevent injury to riders riding over said nozzle.

Id. at 16:53–60.

31. A mobile water ride attraction, comprising:

a plurality of nozzle assemblies with each nozzle assembly comprising:

a nozzle having an aperture and being adapted to inject a jet of water;

a nozzle cover comprising a flexible padded material to protect riders from possible injurious contact with said nozzle; and

a plurality of transportable modules and associated components which when assembled form a ride surface which is contoured to form a predetermined or preselected wave structure and/or flow pattern.

Id. at 18:3–14.

E. ASSERTED PRIOR ART AND PROPOSED GROUNDS OF UNPATENTABILITY

Petitioner relies on the following references:

Exhibit	Reference
1003	U.S. Pat. No. 3,598,402, iss. Aug. 10, 1971 (“Frenzl”)
1004	U.S. Pat. No. 5,213,547, iss. May 25, 1993 (“Lochtefeld 547”)
1005	U.S. Pat. No. 5,738,590, iss. Apr. 14, 1998 (“Lochtefeld 590”)
1006	U.S. Pat. No. 6,019,547, iss. Feb. 1, 2000 (“Hill”)

Petitioner asserts the following grounds of unpatentability under 35 U.S.C. § 103(a):²

Reference(s)	Challenged Claims
Frenzl	1, 3, 13, 16, 17, 24–27, 29, 37, 38, 40, 42, 43
Frenzl and Lochtefeld 547	16, 31–36, 50, 54, 55
Frenzl, Lochtefeld 547, and Lochtefeld 590	1, 3, 13, 16, 17, 24–27, 29, 31–38, 40, 42, 43, 50, 54, 55
Hill	1, 3, 13, 15–17, 24–27, 29, 30, 37, 38, 40–43
Hill and Lochtefeld 547	16, 31, 32, 34–36, 50, 54, 55
Hill, Lochtefeld 547, and Lochtefeld 590	1, 3, 13, 15–17, 24–27, 29–32, 34–38, 40–43, 50, 54, 55

F. LEGAL PRINCIPLES

An invention is not patentable “if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.” 35 U.S.C. § 103(a). The question of obviousness is resolved on the basis of underlying factual determinations including: (1) the scope and content of the prior art; (2) any differences between the claimed subject matter and the prior art; (3) the level of skill in the art; and, (4) where in evidence, so-called secondary considerations, including commercial success, long-felt but

² The Leahy-Smith America Invents Act (“AIA”) included revisions to 35 U.S.C. § 100 *et seq.* effective on March 16, 2013. Because the ’016 Patent issued from an application filed before March 16, 2013, we apply the pre-AIA versions of the statutory bases for unpatentability.

unsolved needs, and failure of others. *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966). When evaluating a combination of teachings, we must also “determine whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (citing *In re Kahn*, 441, F.3d 977, 988 (Fed. Cir. 2006)). Whether a combination of elements produces a predictable result weighs in the ultimate determination of obviousness. *KSR*, 550 U.S. at 416–17. We analyze Petitioner’s proposed grounds, which are based on obviousness, in accordance with the above-stated principles.

II. DISCUSSION

A. CLAIM CONSTRUCTION

Before the Board, claims in an unexpired patent are interpreted according to their broadest-reasonable construction in light of the specification of the patent in which they appear. 37 C.F.R. § 42.100(b); *Cuozzo Speed Techs., LLC v. Lee*, 136 S. Ct. 2131, 2144–46 (2016). Under that standard, we generally give a claim term its “ordinary and customary meaning,” which is “the meaning that the term would have to a person of ordinary skill in the art in question” at the time of the invention. *In re Translogic Tech., Inc.*, 504 F.3d 1249, 1257 (Fed. Cir. 2007). The specification may impose a specialized meaning, departing from the ordinary and customary meaning, by defining a term with reasonable clarity, deliberateness, and precision. *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994). Further, a party may prove “the existence of a ‘clear and unmistakable’ disclaimer” that narrowed a term’s definition in the prosecution history of a challenged patent. *TriVascular, Inc. v. Samuels*,

812 F.3d 1056, 1063–64 (Fed. Cir. 2016) (quoting *Elbex Video, Ltd. v. Sensormatic Elecs. Corp.*, 508 F.3d 1366, 1371 (Fed. Cir. 2007)).

Petitioner proposes constructions for the following terms:

Term(s)	Appearing in claims
“nozzle” / “sluice” / “sluice gate”	17, 24, 37
“biased downward” / “urged downward” / “biasing . . . downwards”	1, 17, 37, 38, 42
“tongue”	1, 26, 37, 38
“removable connected” / “removably affix[ed]”	3, 17, 42
“a plurality of transportable modules and associated components” / “transportable [propulsion/ride surface] modules”	31–33, 50–53
“contoured”	16, 17, 24, 31, 36, 42
“to prevent injury to riders riding over said nozzle” / “to prevent riders from possibly colliding with or riding over said sluice and/or interfering with the ride operation” / “to protect riders from possible injurious contact with said nozzle” / “to seal off said sluice gate outlet from possible injurious contact with a rider”/ “to shield the outlet aperture from contact with riders riding over said nozzle”	1, 24, 31, 37, 38

We address two of those terms below, along with one additional term that impacts our analysis. Having considered the evidence presented, for all other terms we conclude that no express claim construction is necessary for our determination of whether to institute review of the challenged claims. *See Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir.

1999) (“[O]nly those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy.”).

1. “*nozzle*” / “*sluice*” / “*sluice gate*”

All claims of the ’589 patent recite “nozzle,” “sluice,” or “sluice gate.” See Ex. 1001, 16:53–20:31. Petitioner asserts that “nozzle,” “sluice,” or “sluice gate” means “component for injecting water.” Pet. 17–18 (relying on assertions made in the related district-court litigation, citing Ex. 1011, 11). We conclude that Petitioner’s construction is consistent with the specification and adopt it for purposes of this decision. See Ex. 1001, 1:39–41.

2. “*biased downward*” / “*urged downward*” / “*biasing . . . downwards*”

Independent claims 1, 17, 37, 38, and 42 recite that the claimed flexible tongue is: “biased downward against the flow of the water” (claim 1), “urged downward against the flow of water” (claims 17 and 42), “biased downward toward the jet of water” (claim 38), or the step of “biasing said tongue downwards to squeeze said tongue against the flow of water.” *Id.* at 16:53–60, 17:29–37, 18:26–38, 18:39–47, 18:55–64. Petitioner asserts that “biased downward” and “urged downward” should be construed as “to cause to be oriented downward by any force, such as gravity.” Pet. 18 (relying on assertions made in the related district-court litigation, citing Ex. 1012, 4). We conclude that Petitioner’s construction is consistent with the specification and adopt it for purposes of this decision. See Ex. 1001, 10:38–50.

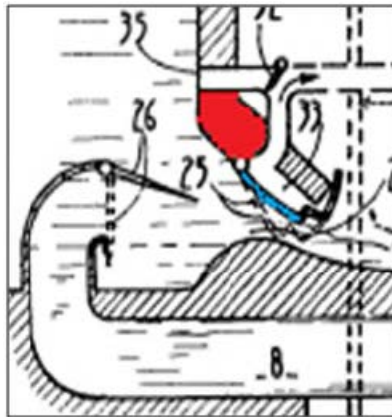
3. “inject”

Independent claims 24 and 31 recite “a sluice sized and configured to inject a flow of water onto said ride surface” and “a nozzle having an aperture and being adapted to inject a jet of water,” respectively. *Id.* at 17:50–57, 18:3–14. For purposes of this decision, we adopt a plain and ordinary meaning of “inject” as “introduce.” *See Inject*, Merriam-Webster.com, <https://www.merriam-webster.com/dictionary/inject>, (last visited February 14, 2017); Ex. 3001.

B. OBVIOUSNESS BASED ON FRENZL

Petitioner presents three grounds based on Frenzl: obviousness over Frenzl alone (Pet. 22–35); obviousness over Frenzl combined with Lochtefeld 547 (*id.* at 36–43); and obviousness over Frenzl combined with Lochtefeld 547 and Lochtefeld 590 (*id.* at 43–45). Among the grounds based on Frenzl, Petitioner challenges claims 1, 3, 13, 16, 17, 24–27, 29, 31–38, 40, 42, 43, 50, 54, and 55.

Having reviewed Petitioner’s contentions and supporting evidence, we are not persuaded Petitioner has demonstrated a reasonable likelihood of prevailing on grounds based on Frenzl. Each claim of the ’589 patent recites a nozzle cover in one form or another, e.g., “nozzle cover” (claims 1, 31, 38, and 42), “cover for a water ride sluice gate” (claim 17), “cover which covers and extends over the top surface of said sluice” (claim 24), “covering said sluice gate with a padded material” (claim 37), “padded cover [that] extends over at least one of the nozzles” (claim 50). Petitioner asserts that Frenzl “discloses a nozzle cover (shaded in red by Petitioner)” and provides an annotated portion of Frenzl’s Figure 7, which is reproduced below:



The annotated portion of Figure 7 depicts what Frenzl describes as a “discharge nozzle 2” and “pivoting flap 25” along with the surrounding structures, where Petitioner has shaded the pivoting flap blue and shaded a portion of the surrounding structure red. Pet. 24; Ex. 1003, 4:74–5:20. We do not agree that the portion shaded red by Petitioner reasonably discloses a “cover” to Frenzl’s nozzle. At best, it depicts part of the structure comprising the nozzle. Stated otherwise, the portion Petitioner relies on as disclosing a nozzle cannot be both a nozzle and a cover for that same nozzle, and Petitioner fails to explain how various parts of the structure fulfill each requirement.

Because each challenged claim recites a nozzle cover but Petitioner has not adequately identified disclosure of the claimed structure in Frenzl, we conclude that the Petition does not show a reasonable likelihood that Petitioner would prevail for any claim challenged based on Frenzl alone or in combination with Lochtefeld 547. Petitioner does not assert that Lochtefeld 547 teaches the claimed nozzle cover. See Pet. 36–45. We address Petitioner’s contentions regarding Lochtefeld 590 (*see id.* at 44–45) below. In light of the foregoing, we do not institute review based on Frenzl alone or in combination with Lochtefeld 547.

C. OBVIOUSNESS BASED ON HILL

Petitioner presents three grounds based on Hill: obviousness over Hill alone (*id.* at 45–57); obviousness over Hill combined with Lochtefeld 547 (*id.* at 58–64); and obviousness over Hill combined with Lochtefeld 547 and Lochtefeld 590 (*id.* at 64–66). Among the grounds based on Hill, Petitioner challenges claims 1, 3, 13, 15, 16, 17, 24–27, 29–32, 34–38, 40–43, 50, 54, and 55.

Petitioner asserts that Hill discloses two different nozzles: one shown in Figure 3 and the other shown in Figure 8c. *Id.* at 46–47. We separately address Petitioner’s arguments regarding these two embodiments.

1. *The Figure 3 “nozzle” does not include both a nozzle and a nozzle cover*

Hill’s Figure 3 is reproduced below:

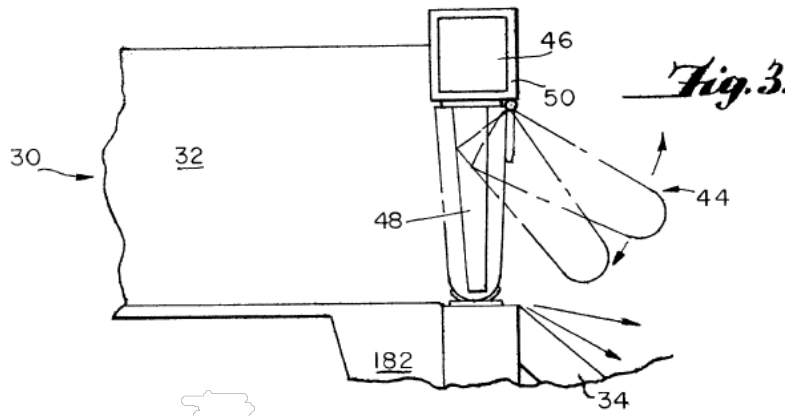


Figure 3 depicts a “variable penstock 44 . . . installed upon the uppermost rim 46 of the water tower 30” including a flap 48 “hingeably connected to an upper support 50 such as a steel tube or the like.” Ex. 1006, 6:22–31.

Petitioner asserts that “in FIG. 3, a flow of water is emitted from a tower onto a flume to the ride surface.” Pet. 46 (citing Ex. 1006, 6:22–31). Thus, according to Petitioner, Hill’s Figure 3 discloses: a nozzle in “the opening

created by flap (48)”; a nozzle cover in “upper support 50”; and a flexible tongue in “flap 48.” *Id.* at 46, 47.

As discussed above, we adopt Petitioner’s proposed construction of “nozzle” for purposes of this decision, requiring “a component for injecting water.” *See supra* at 10, section A.1. We conclude that Petitioner fails to show Hill’s Figure 3 discloses the claimed elements because an opening is not a component; stated otherwise, the claimed “component for injecting water” requires a physical component, not just an opening left by the absence of other components. The specification supports this reading, by distinguishing between “an outlet aperture” and the “nozzle.” Ex. 1001 2:24–25 (“The nozzle assembly comprises a nozzle having an outlet aperture adapted to emit a jet of water onto a ride surface.”). In Petitioner’s mapping, “upper support 50” creates the aperture, but Petitioner relies on the upper support as the claimed cover. The upper support, as claimed, cannot be both a nozzle and a cover for that nozzle, and Petitioner fails to explain how different parts of the upper support would function as the multitude of claimed elements.

Accordingly, we conclude that Petitioner has not shown it is reasonably likely to succeed with any challenge asserting that Hill’s Figure 3 discloses a both a nozzle and a nozzle cover (all independent claims). We therefore do not institute review on any ground relying on Hill’s Figure 3.

2. *The Figure 8c “nozzle”*

Petitioner also asserts that Hill’s Figure 8c discloses a nozzle. Pet. 46–47. Hill’s Figure 8c is reproduced below:

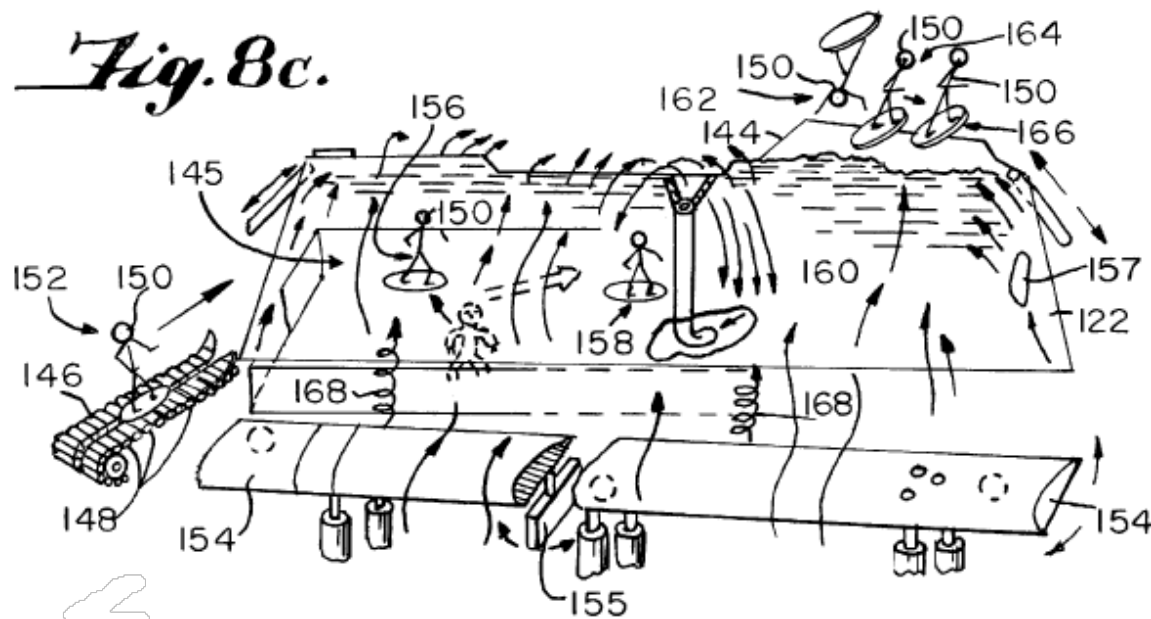


Figure 8c depicts “one or more aerofoils 154” as one component to create a “simulated natural standing wave 145.” Ex. 1006, 16:33–36. It also depicts that “an adjustable rudder 155 may be provided under the aerofoil 154 to further shape the flow of water.” *Id.* at 17:48–50.

a. The Figure 8c “nozzle” does not inject water

As discussed above, claims 24 and 31 require that the nozzle or sluice be adapted to “inject” water, which we construe to require the nozzle introduce water to the ride. *See supra* at 11, section A.3. We conclude that Petitioner fails to show that Hill discloses the “inject” limitations of claims 24 and 31. For both claims, Petitioner relies on its contentions regarding Hill’s teachings provided for claim 1. Pet. 53, 60. But Petitioner asserts only that some of the water already on the ride surface passes under Hill’s aerofoil. *Id.* at 47. The “inject” limitations require that water be introduced to the ride through the nozzle, not merely that some water already on the ride surface pass through the nozzle. *See supra* at 11, section A.3. Because

Petitioner has not shown that that water is introduced to the ride from under Hill's aerofoil, we find that Hill does not teach the "inject" limitations.

Accordingly, we conclude that Petitioner is not likely to succeed with its challenges to claims 24 or 31 based on Hill's Figure 8c. We therefore do not institute review of those claims on any ground relying on Hill's Figure 8c.

b. The Figure 8c "nozzle" does not disclose a nozzle cover tongue that is "biased/urged downward"

Independent claims 1, 17, 37, 38, and 42 require the nozzle cover include a tongue that is "biased downward" (claim 1, 37, 38, 42) or "urged downward" (claim 17). Petitioner asserts that the nozzle disclosed in Hill's Figure 8c includes such a tongue because the "aerofoil (154) comprises both a cover and a flexible tongue at its downstream end extending over the water flow from the nozzle." Pet. 48. Petitioner identifies the trailing edge of Hill's aerofoil as the claimed tongue and asserts that "Hill's cover and tongue configuration are biased downward because it is brought downward by a gravitational force according to Patent Owner's interpretation." *Id.* at 48–49. We accept Petitioner's proposed construction that gravity may act as a biasing force. *See id.* at 18; *supra* at 10, section A.2. But without evidence that gravity causes movement in the trailing edge of the aerofoil, or even movement of the aerofoil as a whole, such that the tongue is "oriented downward" (*see supra* at 10, section A.2), Petitioner has not shown that gravity causes a bias in the aerofoil. Indeed, gravity acts on all objects, so the mere presence of gravity cannot show that this limitation is met.

Petitioner asserts that Hill's cover and tongue are biased downward also because they are "attached to 'adjustable rudder 155' to raise and lower the aerofoil (154)." *Id.* at 48–49 (citing Ex. 1006, 17:48–52; Ex. 1002

¶ 112). We do not agree with this additional assertion because Hill states that the rudder is provided “to further shape the flow of water” (Ex. 1006, 17:48–52) and depicts the rudder as a flow-altering surface separate from the aerofoil (*id.* at Fig. 8c), not that it may “raise and lower the aerofoil” as Petitioner asserts. If anything, it appears from the Hill’s Figure 8c that the rudder directs water laterally relative to the flow field. Thus, we do not agree with Petitioner that the rudder biases or urges the aerofoil downwards.

Because we do not agree that Petitioner has identified a tongue that is “biased downward,” we conclude that Petitioner has not shown a reasonable likelihood of succeeding with its challenges to claims 1, 17, 37, 38, or 42 based on Hill’s Figure 8c. We therefore do not institute review of those claims on any ground relying on Hill’s Figure 8c.

D. OBVIOUSNESS INCLUDING LOCHTEFELD 547

Petitioner presents four grounds that include Lochtefeld 547: obviousness over Frenzl combined with Lochtefeld 547 (Pet. 36–43); obviousness over Frenzl combined with Lochtefeld 547 and Lochtefeld 590 (*id.* at 43–45); obviousness over Hill combined with Lochtefeld 547 (*id.* at 58–64); and obviousness over Hill combined with Lochtefeld 547 and Lochtefeld 590 (*id.* at 64–66). Among the grounds based on Hill, Petitioner challenges claims 1, 3, 13, 15, 16, 17, 24–27, 29–32, 34–38, 40–43, 50, 54, and 55. Because Petitioner does not rely on Lochtefeld 547 in a way that could remedy the defects we discuss above with Petitioner’s contentions regarding claims 1, 3, 13, 15, 16, 17, 24–27, 29, 30, 37, 38, and 40–43, we do not separately address those claims here. Rather, we address Petitioner’s contentions for independent claims 31 and 50 (and thus for the claims that depend from those independent claims).

Claim 31 requires “a plurality of nozzle assemblies with each nozzle assembly comprising: a nozzle . . . [and] a nozzle cover.” Ex. 1001, 18:3–14. It further requires “a plurality of transportable modules and associated components which when assembled form a ride surface which is contoured to form a predetermined or preselected wave structure and/or flow pattern.” *Id.* Claim 50 requires “a plurality of transportable propulsion modules” where each includes “a circulation pump” and “a flow forming nozzle,” and where the modules “are configured to be connected to one another to form a water propulsion system.” *Id.* at 19:14–33. It further requires “a plurality of transportable ride surface modules . . . configured to be connected to one another to form a ride surface.” *Id.*

Petitioner asserts that a variety of teachings in the prior art disclosed the limitations of claims 31 and 50. For example, Petitioner asserts that Lochtefeld discloses a plurality of nozzle assemblies, that Hill and Lochtefeld 547 each discloses the claimed nozzle, and that Hill discloses or renders obvious the nozzle cover. Pet. 59–60, 61–63. Petitioner further asserts that Hill in view of Lochtefeld 547 discloses the claimed “plurality of transportable modules” that “form a ride surface.” *Id.* at 60, 62–63.

Petitioner argues that “a person of ordinary skill would have been motivated to implement the ‘modular’ approach taught by Lochtefeld 547 to Hill to facilitate” Hill’s transportability. *Id.* at 58. Petitioner asserts that using Lochtefeld 547’s transportable modules would “improve transportability” of Hill’s ride in the way those modules operated in Lochtefeld 547. *Id.* But Petitioner has relied on Hill and Lochtefeld 547 in a more particular manner, drawing elements from each as explained above. As described above, Petitioner does not rely on Lochtefeld 547 simply for its

teaching of a “modular approach.” Thus, without providing some rationale why a person of skill would have looked to each of the teachings from Lochtefeld 547 and Hill, Petitioner has failed to articulate the proposed ground of unpatentability with sufficient particularity. See 35 U.S.C. § 312(a)(3), 37 C.F.R. § 42.104(b). We conclude that the Petition does not show a reasonable likelihood that Petitioner would prevail for any claim challenged in a ground including Lochtefeld 547. We therefore do not institute review of those claims on any ground relying on Lochtefeld 547.

E. OBVIOUSNESS INCLUDING LOCHTEFELD 590

Petitioner presents two grounds that include Lochtefeld 590: obviousness over Frenzl combined with Lochtefeld 590 (Pet. 43–45), and obviousness over Hill combined with Lochtefeld 590 (*id.* at 64–66). Petitioner argues that “Lochtefeld 590 discloses ‘a unique nozzle outlet area which is at or slightly below the elevation of the water surface in the pool, so that riders may skim over the nozzle area and onto the riding surface directly from the pool area.’” *Id.* at 44–45 (emphasis omitted) (quoting Ex. 1005, [57]). Petitioner also argues that Lochtefeld 590’s “FIG. 8 shows ‘angled nozzle 82 outlet’ that contains a cover and aperture through which it injects a flow of water.” *Id.* at 45 (quoting Ex. 1005, 13:37–38). According to Petitioner, a person of skill “would be motivated to apply Lochtefeld 590’s nozzle assembly (with nozzle cover and aperture) to Frenzl’s nozzle assembly.” *Id.* at 43–44; *accord id.* at 44 (“A person of skill would therefore be motivated to further improve safety by additionally incorporating Lochtefeld 590’s nozzle assembly”), 65 (same, applied to Hill and Lochtefeld 590).

We do not agree with Petitioner's assertions regarding Lochtefeld 590. Lochtefeld 590 discloses that the nozzle is "at or slightly below the elevation of the water surface" and thus does not protrude from the water. Ex. 1005, [57]; *accord id.* at 10:15–17 ("As can be seen in FIG. 2a, the nozzle outlet area 30 is substantially level or beneath the water level of the pool area 21. This allows riders to skim over the nozzle and to be propelled up the incline from the pool area."). Although Petitioner cites Lochtefeld 590's Figure 8 as showing "'angled nozzle 82 outlet' that contains a cover" (Pet. 45, 66), we do not agree that the figure supports such a finding. Petitioner has identified no disclosure in Lochtefeld 590 that teaches the claimed nozzle cover. Accordingly, we conclude that the Petition does not show a reasonable likelihood that Petitioner would prevail for any claim challenged in a ground including Lochtefeld 590. We therefore do not institute review on any ground relying on Lochtefeld 590.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented in the Petition does not establish a reasonable likelihood that Petitioner would prevail in showing claims 1, 3, 13, 15–17, 24–27, 29–38, 40–43, 50, or 54–55 unpatentable.

IV. ORDER

Accordingly, it is:

ORDERED that the Petition for *inter partes* review of the '589 patent is denied.

Case IPR2016-01674
Patent 6,491,589 B1

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