

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

SHARKNINJA OPERATING LLC,
SHARKNINJA MANAGEMENT LLC, AND
SHARKNINJA SALES COMPANY,
Petitioner,

v.

BISSELL INC.,
Patent Owner.

IPR2022-01437
Patent 11,185,205 B2

Before WILLIAM V. SAINDON, BENJAMIN D. M. WOOD, and
CARL M. DEFRANCO, *Administrative Patent Judges*.

SAINDON, *Administrative Patent Judge*.

DECISION
Denying Institution of *Inter Partes* Review
35 U.S.C. § 314

I. INTRODUCTION

A. *Background and Summary*

SharkNinja Operating LLC, SharkNinja Management LLC, and SharkNinja Sales Company (“Petitioner”) filed a Petition (Paper 1, “Pet.”) requesting *inter partes* review of claims 1–20 (“the challenged claims”) of U.S. Patent 11,185,205 B2 (Ex. 1001, “the ’205 patent”). BISSELL, Inc. (“Patent Owner”) filed a preliminary response (Paper 6, “Prelim. Resp.”). Patent Owner disclaimed independent claim 19. *Id.* at 10; Ex. 2001.

We have authority to determine whether to institute an *inter partes* review under 35 U.S.C. § 314(b) and 37 C.F.R. § 42.4(a) (2020). The standard for instituting an *inter partes* review is set forth in 35 U.S.C. § 314(a), which provides that an *inter partes* review may not be instituted unless “there is a reasonable likelihood that the petitioner would prevail with respect to at least 1 of the claims challenged in the petition.”

For the reasons provided below, we determine Petitioner has not satisfied the threshold requirement set forth in 35 U.S.C. § 314(a). Because Petitioner has not demonstrated a reasonable likelihood that at least one claim of the ’205 patent is unpatentable, we do not institute an *inter partes* review. 37 C.F.R. § 42.108(b).

B. *Real Parties in Interest*

Petitioner asserts that “real parties-in-interest are Petitioners SharkNinja Operating LLC, SharkNinja Management LLC, and SharkNinja Sales Company . . . , as well as EP Midco LLC and SharkNinja (Hong Kong) Company Limited.” Pet. viii. Petitioner also identifies “JS Global Lifestyle Company Limited as a real party-in-interest in an abundance of caution.” *Id.*

Patent Owner asserts that BISSELL Inc. is the real party in interest, but also identifies BISSELL Homecare, Inc. in “an abundance of caution.” Paper 3 (Patent Owner’s Mandatory Notices).

C. Related Matters

The parties do not identify any other judicial or administrative matters that would affect or be affected by a decision in this proceeding. Pet. viii; Paper 3. Petitioner and Patent Owner are involved in several other instituted proceedings: IPR2022-01175, IPR2022-01176, IPR2022-01177, IPR2022-01194, and IPR2022-01195.

D. Prior Art and Asserted Grounds

Petitioner’s grounds rely on the following prior art references:

Name	Reference	Exhibit(s)
Frohbieter	US 4,458,377, iss. July 10, 1984	1010
Gilbertson	US 5,375,293, iss. Dec. 27, 1994	1015
Francisco	US 7,942,156 B2, iss. May 17, 2011	1016
Park	KR 10-2009-0132658, pub. Dec. 31, 2009	1005
Xia	AU 2016101847 A4, pub. Nov. 24, 2016	1004

Petitioner asserts that claim 1 would have been unpatentable under the following grounds:

Claim(s) Challenged	35 U.S.C. § ¹	Reference(s)/Basis
1–20	103	Xia, Park
10, 11	103	Xia, Park, Gilbertson
10, 11	103	Xia, Park, Francisco
10, 11	103	Xia, Park, Frohbieter

¹ The ’205 patent was filed on April 2, 2021. Ex. 1001, code (22). The patent asserts that it is a continuation of an application filed November 30, 2017. We apply the version of 35 U.S.C. § 103 as amended by the Leahy-Smith America Invents Act, Pub. L. No. 112–29, 125 Stat. 284 (2011).

Claim(s) Challenged	35 U.S.C. § ¹	Reference(s)/Basis
10, 11	103	Xia, Park, Gilbertson, Frohbieter
10, 11	103	Xia, Park, Francisco, Frohbieter

Petitioner also relies on the testimony of Gareth E. L. Jones, who is an engineer familiar with design and development of upright vacuum cleaners. Ex. 1003 ¶¶ 6–7.

E. Overview of the '205 Patent

The '205 patent describes a surface cleaning apparatus having a recovery system for removing the spent cleaning fluid and debris from the surface. Ex. 1001, code (57). The recovery system has a strainer to strain large debris and hair out of the recovery tank prior to emptying. *Id.* Figure 1 of the '205 patent is reproduced below.

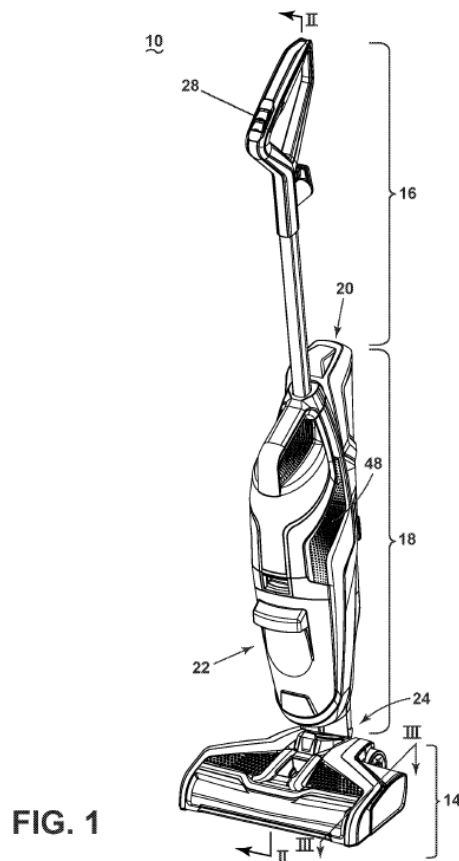


Figure 1 of the '205 patent shows a perspective view of a surface cleaning apparatus. *Id.* at 2:48–49. It is an upright multi-surface wet vacuum cleaner having cleaning head or base 14 coupled to upright body or handle assembly (shown in Figure 1 as handle 16 plus frame 18). *Id.* at 2:59–64. Recovery tank 22 is located in the upright body and stores used cleaning fluid until it is removed and dumped. *Id.* at 3:7–21.

Inside recovery tank 22 is removable strainer 96. *Id.* at 7:21–23, Fig. 4. The pathway of the dirty water is such that it passes through strainer 96 before settling at the bottom of recovery tank 22, allowing for separation of large debris and water. *Id.* at 9:40–64. According to the '205 patent, typical recovery tanks did not have a strainer, such that disposing of the debris down the drain with the liquid could lead to a clogged drain. *Id.* at 9:65–10:34.

F. Challenged Claims

Claims 1–20 are challenged, but claim 19 has been disclaimed. Claim 1 is reproduced below.

1. A surface cleaning apparatus, comprising:
 - a housing including an upright handle assembly and a cleaning head mounted to the upright handle assembly and adapted for movement across a surface to be cleaned; and
 - a recovery system, comprising:
 - a suction source;
 - a suction nozzle provided within the cleaning head, the suction nozzle in fluid communication with the suction source; and
 - a recovery tank assembly including a recovery tank container having an open top and a bottom wall and a hollow standpipe extending from the bottom wall and strainer assembly

removably mounted within the recovery tank container and having a portion operably coupled to the hollow standpipe.

II. ANALYSIS

A. *Legal Standards Used in the Merits Analysis*

“In an IPR, the petitioner has the burden from the onset to show with particularity why the patent it challenges is unpatentable.” *Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1363 (Fed. Cir. 2016) (citing 35 U.S.C. § 312(a)(3) (requiring *inter partes* review petitions to identify “with particularity . . . the evidence that supports the grounds for the challenge to each claim”)); *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015) (discussing the burden of proof in *inter partes* review).

A claim is unpatentable under 35 U.S.C. § 103 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 . . . to a person having ordinary skill in the art to which said subject matter pertains.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007). 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) when in evidence, objective evidence of nonobviousness, i.e., secondary considerations. *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17–18 (1966).

B. Level of Ordinary Skill in the Art

Petitioner asserts that a person of ordinary skill in the art:

would have had a Bachelor’s degree in Mechanical Engineering (or an equivalent discipline) or equivalent work experience, and at least one year’s worth of experience in research, design and/or development related to vacuum cleaners . . . (or other comparable industrial design). Additional education could substitute for experience, and vice versa.

Pet. 19 (citing Ex. 1003 ¶ 20).

Patent Owner states that a person of ordinary skill in the art:

would have a bachelor’s degree in mechanical engineering or similar discipline and at least one year of experience designing vacuum cleaners (or comparable industrial design). Additional education could substitute for experience, and vice versa.

Prelim. Resp. 10 (no evidence cited).

For purposes of this Decision, we perceive no meaningful distinction between the two positions. We apply Petitioner’s level of skill because it is the losing party, although we do not believe adopting Patent Owner’s level of skill would affect the outcome.

C. Claim Construction

The parties do not dispute any claim terms at this time (Pet. 7, Prelim. Resp. 10), nor are any constructions required for us to make this Decision. Accordingly, we do not construe any claim terms. *Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’”)(quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

D. Asserted Obviousness over Xia and Park

Each of the six grounds asserted by Petitioner rely, on some level, on a combination of Xia and Park. Pet. 4. In relevant part, independent claims 1 and 15 recite an upright vacuum cleaner where there is a strainer in the recovery tank (i.e., dirty water tank). Petitioner asserts that Xia describes all of the limitations of claims 1 and 15, except for the strainer. Pet. 19–43, 67–68. Xia depicts an upright vacuum cleaner nearly identical to the one shown and described in the '205 patent, except for the strainer. *See id.* at 20–22 (noting, “Xia’s disclosure and figures are explicitly incorporated by reference into the specification of the ’205 patent”); *compare* Ex. 1001, Figs. 1–3 with Ex. 1005, Figs. 1, 2, 10. Patent Owner does not challenge that assertion. Prelim. Resp. 11–19; *but see id.* at 20, n.1 (noting that it is only making arguments it believes are sufficient to deny institution and reserves the right to make further arguments in the event of institution). Accordingly, we turn our attention to the strainer, which Petitioner asserts may be found in Park. Pet. 25–26, 35–43.

Whereas Xia is an upright vacuum cleaner, Park is a canister vacuum, which uses a separate suction hose and a roll-behind vacuum unit. Ex. 1005, Fig. 1 (depicting a suction hose connected to a separate canister unit) (reproduced below); Ex. 1003 ¶ 40. In addition, whereas Xia is a wet vacuum cleaner, Park is a water-filter vacuum cleaner, which is a type of vacuum that bubbles the dirty air through water to capture dirt and debris from the air. Ex. 1005, code (57) (Abstract), ¶ 54; Ex. 1003 ¶¶ 41–47 (discussing some different vacuum types). The dirty water goes through a cylindrical tube inside the canister, then hits the top of the device and falls back down, allowing the water to recirculate and be used again. *Id.* Figure

1 of Park shows these structures, and is reproduced with additional coloration below.

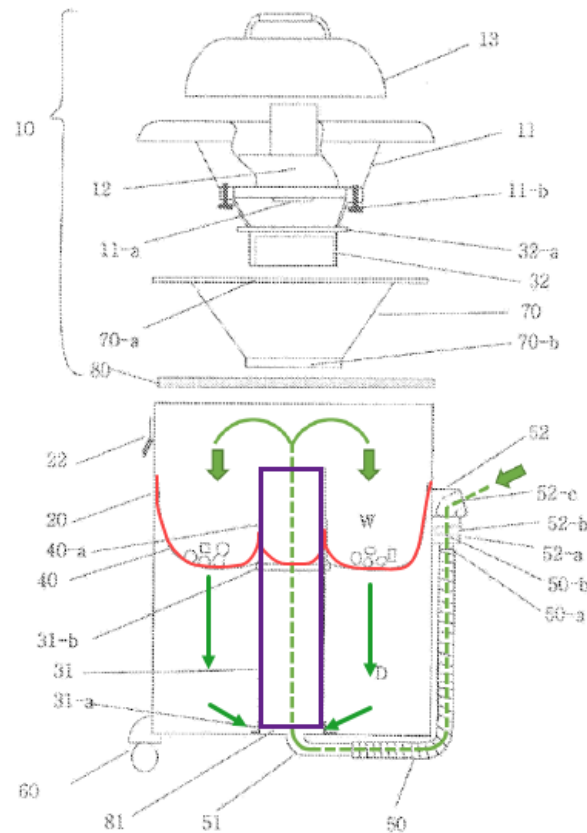


Figure 1 of Park depicts cleaner lower body 20 having cylindrical tube 31 (purple) and hose 50. Ex. 1005 ¶ 54. The path of the water and air is shown in green. In operation, another hose is attached to hose 50 to ingest dirt. *Id.* The dirty air travels into hose 50 and cylindrical tube 31, which is filled with water. *Id.* The dirty air bubbles through the water, then the air/water mixture collides with a structure at the top of the device. *Id.* The dirty water falls back down into the cannister (green arrows), whereas the air continues up through vacuum motor/fan 12 and back out into the room. *Id.* at 54. The dirty water recirculates back into hose 50 and cylindrical tube 31 by means of return water passage 81 formed by leg-feet 31-a at the bottom of cylindrical tube 31. *Id.* ¶ 50; *see also* Pet. 36 (depicting the suction path

just described). When it comes time to drain the cannister, hose 50 is disconnected from the side wall and set on the ground, allowing the water to drain out from cannister body 20, through hose 50, and onto the ground. *Id.* ¶ 55. Thus, dirty water cycles through leg-feet 31-a two times: (1) during vacuuming operation, in order allow water recirculation into cylinder 31 and hose 50, and (2) during draining, to let the water flow out from the cannister through the hose.

Petitioner points out that Park has strainer basket 40 “so that all residue or garbage among captured/separated dirt is collected.” Ex. 1005 ¶ 55; Pet. 38–41. Petitioner asserts that it would have been obvious to incorporate this strainer basket into the recovery tank of Xia “to prevent garbage and residue from being mixed into the dirty water collected in the recovery tank [of Xia].” Pet. 41. Petitioner points out that Park also teaches that its strainer allows “the dirty water [to] be thrown away easily since discharged dirty water does not contain the residue; and the residue may be simply discarded separately.” *Id.* at 25–26 (quoting Ex. 1005 ¶ 55).²

Patent Owner argues that Petitioner has not established a reason to modify Xia’s recovery tank to include a strainer basket like in Park. Prelim. Resp. 13–16. Patent Owner points out that Park uses the strainer basket in order to keep dirt in the recirculating water from clogging up the recirculation path; something not at issue in Xia. *Id.* at 15 (citing Ex. 1005 ¶ 55).

² We note here that Petitioner is relying on Park not just to supply the missing limitation of a strainer, but also to supply the rationale for taking that strainer and putting it in Xia.

We agree with Patent Owner. We find nothing in Park that would indicate its strainer would be useful on devices that do not have water recirculation. In both the recirculation and draining scenarios where Park touts the benefit of the strainer, the benefit is tied to the fact that Park is a water-filter vacuum that relies on movement of dirty water through a relatively small path at the bottom of the cylindrical tube (i.e., holes 31-a). Ex. 1005 ¶ 55 (stating, “[t]he water passage (81) is not blocked by residue since dirty water does not contain the residue”). If the water had large enough particles, the path would clog and prevent recirculation or draining (as the case may be). Xia has no analogous structures facing these problems because it works differently—Xia has no need to clean dirty water to prepare it for re-use or drainage. Accordingly, Petitioner’s position that Park teaches or suggests to a person of ordinary skill in the art to install a strainer in Xia does not have support in Park.

We acknowledge Petitioner’s assertion that installing Park’s strainer on Xia’s recovery tank would achieve the goal of separating large residue and allowing it to be discarded separately from the water. Pet. 26. We also acknowledge that there is no requirement that the teachings of a reference be applied literally or only according to its stated problem or primary purpose. *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. 398, 420 (2007) (holding that it is error to “assum[e] that a person of ordinary skill attempting to solve a problem will be led only to those elements of prior art designed to solve the same problem”). But the obviousness analysis is more than simply showing that each limitation is found in the prior art. *Id.* at 418 (“a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art”). Petitioner must

also show “whether there was an apparent reason to combine the known elements in the fashion claimed by the patent at issue.” *Id.* (citing *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). This requirement stands even if the claimed invention seems simple. *In re Oetiker*, 977 F.2d 1443, 1447 (Fed. Cir. 1992) (“Simplicity is not inimical to patentability.”); *see also In re Sporck*, 301 F.2d 686, 689–90 (CCPA 1962) (discussing early jurisprudence on the pitfalls of hindsight analysis, especially for relatively simple inventions).

Critical to the present case is that Petitioner has not explained why it would have been obvious to modify Xia by borrowing features that are meant to solve problems unique to water-filter vacuum cleaners. Petitioner asserts, and we agree, that the result of adding a strainer is that it would strain out particles. But we must ask—what drives a person of ordinary skill in the art, looking at the upright wet vacuum of Xia, to consider Park’s strainer in the first place? *See Kahn*, 441 F.3d at 988. Park does not tell us, because the drive to add a strainer in Park is specifically to overcome a problem unique to the mode of operation in Park. In addition, Petitioner points to no general teaching in Park, nor offers any other evidence, suggesting to add strainers to recovery tanks. *KSR*, 550 U.S. at 420 (“any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed”). In sum, Petitioner does not provide us with other evidence showing that a person of ordinary skill in the art would recognize that Park’s structure was more generally applicable to non-recirculating

vacuum systems.³ Thus, Petitioner's justification for its proposed modification falls short.

III. CONCLUSION

As explained above, we find that Petitioner has not established a reason with rational underpinnings that explains why a person of ordinary skill in the art would have considered it obvious to modify Xia's upright vacuum cleaner to include the strainer used in Park's water filter recirculation system. Each of the grounds relies on this combination of features, and thus contains the same deficiency. Accordingly, we do not institute *inter partes* review on any challenged claims on any asserted grounds.

IV. ORDER

In consideration of the foregoing, it is hereby ORDERED that an *inter partes* review of claims 1–18 and 20 of the '205 patent is denied.

³ For completeness, we note that Petitioner cites to its expert, Mr. Jones, but he relies on Park just the same. Ex. 1003 ¶¶ 66–67. Mr. Jones also discusses filters used in other recirculating water systems (dishwashers, pools) but does not provide an explanation of why a person of ordinary skill in the art would look to add a recirculation filter to devices that do not use recirculation. See *id.* ¶ 68 (citing Exs. 1016, 1018).

IPR2022-01437
Patent 11,185,205 B2

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