

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

DYSON TECHNOLOGY LTD. AND DYSON, INC.,
Petitioner,

v.

OMACHRON INTELLECTUAL PROPERTY INC.,
Patent Owner.

IPR2024-00766
Patent 10,568,477 B2

Before MATTHEW S. MEYERS, RYAN H. FLAX, and
BRENT M. DOUGAL, *Administrative Patent Judges*.

DOUGAL, *Administrative Patent Judge*.

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

I. INTRODUCTION

A. *Background and Summary*

Petitioner, Dyson Technology Ltd. and Dyson, Inc., requests institution of an *inter partes* review challenging the patentability of claims 1–20 (the “challenged claims”) of U.S. patent 10,568,477 B2 (Ex. 1001, “the ’477 patent”). Paper 1 (“Petition” or “Pet.”). Patent Owner, Omachron Intellectual Property Inc., argues that Petitioner’s request is deficient and should not be granted. Paper 7 (“Preliminary Response” or “Prelim. Resp.”).

Applying the standard set forth in 35 U.S.C. § 314(a), which requires demonstration of a reasonable likelihood that Petitioner would prevail with respect to at least one challenged claim, we do not institute an *inter partes* review.

B. *Real Parties-in-Interest*

In addition to the named parties, Patent Owner also identifies Omachron Alpha Inc., SharkNinja Operating LLC, and SharkNinja Sales Company as real parties-in-interest. Paper 3, 1. Patent Owner also states that SharkNinja Management LLC may be a real party-in-interest. *Id.*

C. *Related Matters*

SharkNinja Operating LLC v. Dyson, Inc., No. 1:23-cv-11277 (D. Mass.) and *SharkNinja Operating LLC et al v. Dyson, Inc.*, No. 1:23-cv-12372 (D. Mass.), are listed as related district court litigation matters. Pet. 100; Paper 3, 1.

D. *The ’477 Patent*

The ’477 patent is directed to an emptying mechanism for vacuum cleaners that includes a dirt collection region having an openable door, where when an accessory is connected to a dirty air inlet of the vacuum cleaner, the “door lock” on the openable door is inhibited from being

disengaged. Ex. 1001, Abstr., 1:13–16, 1:41–60. This arrangement is illustrated in Figure 33, below.

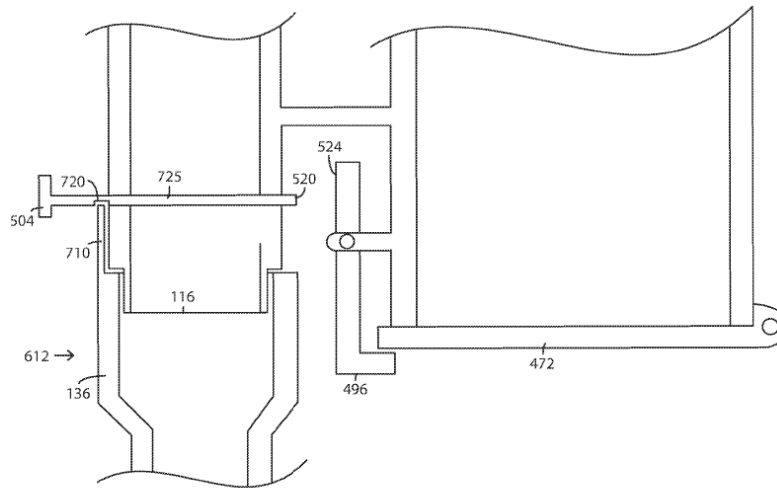


Fig. 33

“FIG. 33 is a schematic cross-sectional view of an openable door and a dirty air inlet of a surface cleaning apparatus . . . , with an accessory connected to the surface cleaning apparatus inhibiting the door from opening.” *Id.* at 16:63–67.

For example, a vacuum can include an accessory (e.g., wand 136 with an engagement portion, flange 710), that when attached to a dirty air inlet of the hand vacuum cleaner, the engagement portion of the accessory (flange 710) is received in notch 720 and inhibits door release actuator 504 from moving towards lock engaging member 496, thereby inhibiting door 472 from being moved to an open position. *Id.* at 37:32–43.

E. Illustrative Claim(s)

Of the challenged claims, claims 1, 13, 14, and 18 are independent. Claim 1, reproduced below, is illustrative:

1. A surface cleaning apparatus comprising:
 - (a) an air flow path from a dirty air inlet to a clean air outlet and including a suction motor;

(b) an air treatment member comprising a dirt collection region having an openable door;

(c) an accessory removably connectable to the dirty air inlet wherein, when the accessory is connected to the dirty air inlet, the openable door is inhibited from opening; and,

(d) an openable door lock comprising a lock engaging member and a door release actuator drivingly connected to the lock engaging member, the lock engaging member moveable between an engaged position in which the lock engaging member secures the openable door in a closed position and a disengaged position in which the openable door is openable wherein the lock engaging member is inhibited from moving to the disengaged position when the accessory is connected to the dirty air inlet.

Ex. 1001, 41:63–42:14.

F. Evidence

Petitioner's grounds of unpatentability rely on the following evidence:

Name	Patent Document	Exhibit
Brown	US 2,477,685 (Dec. 19, 1945)	1007
Vuijk	WO 02/067753 (Sept. 6, 2002)	1008
Howes	US 8,021,453 B2 (Sept. 20, 2011)	1006
Dimbylow	US 2017/0079489 A1 (Mar. 23, 2017)	1005

G. Grounds

Petitioner asserts the following grounds of unpatentability (Pet. 7), supported by the declaration of Robert Giachetti (Ex. 1002):

Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1–20	103	Brown
1–20	103	Brown, Vuijk
1–7, 12, 14–15	103	Dimbylow, Howes

II. ANALYSIS

A. *Legal Standards*

Petitioner bears the burden to demonstrate unpatentability. *Dynamic Drinkware, LLC v. Nat’l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015). At this preliminary stage, we determine whether the information presented in the Petition shows a reasonable likelihood that Petitioner would prevail in establishing that at least one challenged claim would have been obvious over the prior art. *See* 35 U.S.C. § 314(a).

A claim is unpatentable as obvious under 35 U.S.C. § 103(a) 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.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting 35 U.S.C. § 103(a)). We resolve the question of obviousness based on underlying factual determinations, including: (1) the scope and content of the prior art; (2) any differences between the prior art and the claims; (3) the level of skill in the art; and (4) when in evidence, objective indicia of nonobviousness. *See Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966).

We apply these principles to the Petition’s challenges.

B. *Level of Ordinary Skill in the Art*

We review the grounds of unpatentability in view of the understanding of a person of ordinary skill in the art at the time of the invention (“POSA”). *Id.* at 13, 17. Petitioner’s declarant asserts that a person of ordinary skill in the art

would have had a bachelor’s degree in mechanical engineering or a similar field and 2-3 years of experience in machine design,

including machines that include fluid dynamics or fluid paths, such as vacuum cleaners. Additional education could offset less experience and vice versa, and a POSA could have also obtained similar knowledge and experience through other means.

Ex. 1002 ¶ 42; *see also* Pet. 22 (making the same assertion without citation to declarant).

Patent Owner does not contest the level of skill. Prelim. Resp. 2. We are persuaded, on the present record, that Petitioner’s (and its declarant’s) proposed definition of the ordinarily skilled artisan is consistent with the problems and solutions in the ’477 patent and prior art of record. We adopt the above definition of the level of skill for the purposes of this Decision.

C. Claim Construction

In *inter partes* review, we construe claims using the same claim construction standard that would be used to construe the claim in a civil action under 35 U.S.C. § 282(b), including construing the claim language in accordance with its ordinary and customary meaning as would have been understood by one of ordinary skill in the art at the time of invention, and the intrinsic record. 37 C.F.R. § 42.100(b) (2023).

Petitioner asserts that no terms require express construction. Pet. 22–23. Likewise, Patent Owner states that no terms require express construction. Prelim. Resp. 2.

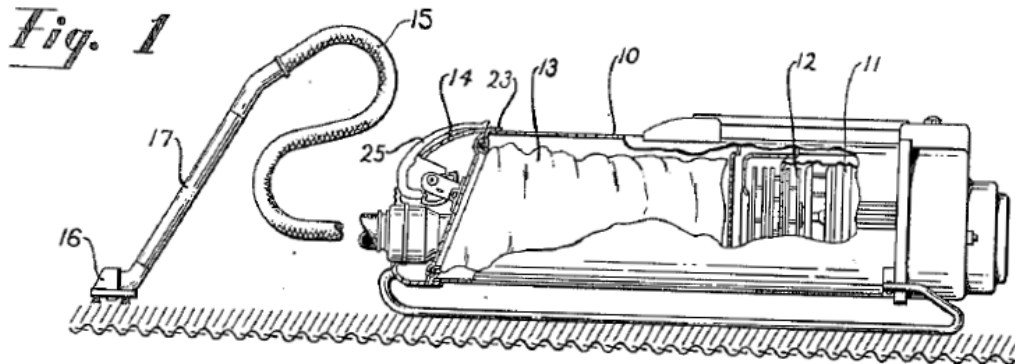
We agree that no terms need to be construed. *See Realtime Data, LLC v. Iancu*, 912 F.3d 1368, 1375 (Fed. Cir. 2019) (“The Board is required to construe ‘only those terms . . . that are in controversy, and only to the extent necessary to resolve the controversy.’” (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999))).

D. 35 U.S.C. § 103 – Brown

Petitioner argues that claims 1–20 are rendered obvious by Brown. Pet. 52–88. Patent Owner argues, and we agree, that Brown does not teach or suggest all of the features of the independent claims. Prelim. Resp. 18–22.

1. Brown

Brown is titled “Latch for Vacuum Cleaner Covers” and is directed to “a cover and latching assembly therefor, wherein the cover handle forms the latch actuating mechanism by and in which a single outward movement of such handle will act to both release the latch and remove the cover from the associated casing.” Ex. 1007, 1:12–18. Brown’s vacuum can be seen in Figure 1, below.



Brown’s Figure 1 shows a vacuum with casing 10 in partial cross-section. *Id.* at 1:29–31. Handle 25 in cover 14 is also shown in closed position.

Figure 3 is a detail, cross-section view with the handle rotated to an open position.

Fig. 3

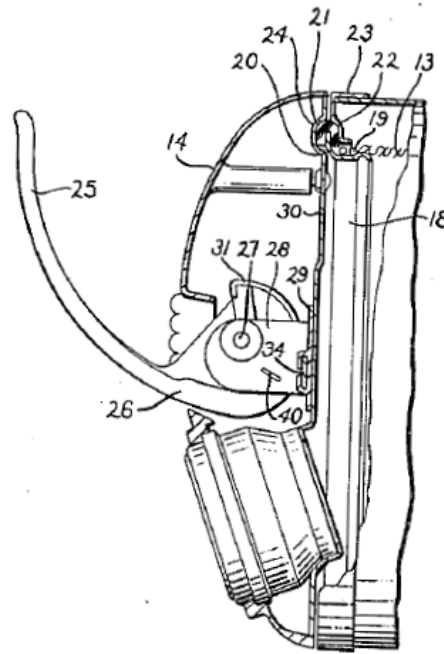


Figure 3 shows handle 25 rotatably mounted at cam end 31 in cover 14. *See id.* at 2:40–3:1. Rotating the handle causes the cam to engage latch bars 34, the details of which are not shown in Figure 3. *See id.* at 2:40–3:5. The particular details of the cam-based engagement system, which is the focus of the short disclosure, is not relevant to the present discussion.

2. Independent Claims

Claim 1 includes:

(c) an accessory removably connectable to the dirty air inlet wherein, ***when the accessory is connected to the dirty air inlet, the openable door is inhibited from opening***; and,

(d) an openable door lock comprising a lock engaging member . . . wherein ***the lock engaging member is inhibited from moving to the disengaged position when the accessory is connected*** to the dirty air inlet.

Ex. 1001, 42:1–14 (emphasis added). Each of the other independent claims likewise require an accessory that inhibits a door, or lock from opening

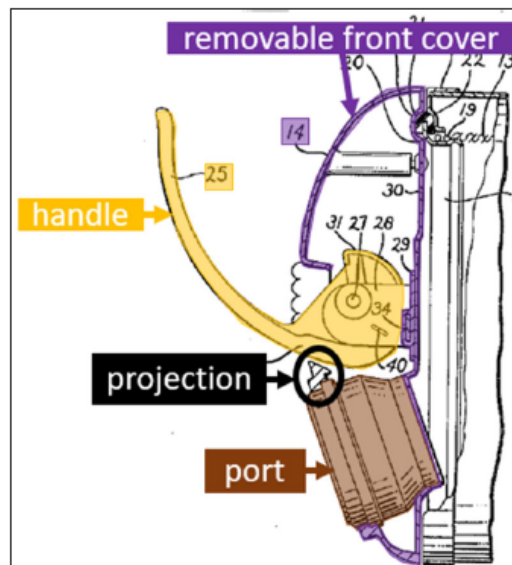
when the accessory is connected to the dirty air inlet. *Id.* at 43:6–11, 19–28, 44:16–23. Brown does not teach or suggest these limitations.

The Petition fails to show that these limitations are taught or suggested because its analysis improperly asserts that Brown teaches features not present in Brown. In particular, Petitioner’s argument is based on the false premise that Brown teaches a projection that influences how the handle can be opened.

We first address the Petition’s asserted teachings of Brown. We then address how the Petition relies on these assertions with respect to the claims.

3. *Petition’s Asserted Teachings of Brown*

The Petition includes the below marked-up version of Brown Figure 3. Pet. 19.



The Petition’s version of Figure 3 includes the words “removable front cover” with a purple arrow pointing to cover 14. Purple is used to highlight selected parts of cover 14, latch bars 34 and plate 29. The word “handle” with a yellow arrow pointing to handle 14 is included. Handle 14 is shown in yellow, as are a number of other features of the camming

engagement system. Also included is the word “port” with a brown arrow pointing to the port to which a hose and cleaning tool would connect.

Most relevant here, the Petition’s Figure includes the word “protection” with a black arrow and circle identifying a portion of cover 14 which is adjacent to handle 25. The Petition asserts that the “**port**” contains a **projection** that provides resistance against ‘**handle**’ movement, and opening Brown’s ‘**cover**’ requires bending Brown’s ‘**port**.’ Pet. 34 (citing Ex. 1007, Fig. 3.; Ex. 1002 ¶ 80 (Petitioner’s declarant making the same assertion). Brown does not include a disclosure of providing such resistance or bending. *See generally* Ex. 1007.

Both the Petition and Petitioner’s declarant cite only to Figure 3 to support this position. Pet. 34; Ex. 1002 ¶ 80. However, Brown Figure 3 does not teach or suggest that the “projection” provides resistance against handle movement, or that opening Brown’s cover requires bending Brown’s port. Further Brown itself does not include any teaching in this regard, and Petitioner does not identify any disclosure that would suggest these teachings. *See also* PO Resp. 21–22 (“nothing in Brown explains what exactly these lines represent, or how these structures (if physical at all) interact with any other parts”).

Based on our review of Brown, the identified “projection” appears to be merely a portion of cover 14 to hold the port in place so that the port does not become detached from the cover.

In a later discussion, Petitioner also points to Brown Figure 1, and “Brown’s ‘**handle 25**,’ which must be ‘grasped and moved about . . . the pintle 27’ [(i.e., pin)] to open Brown’s door,” to support its argument about the “resistance” provided by Brown’s “projection.” Pet. 59–60. The fact that Brown’s handle rotates about a pin does not support Petitioner’s position.

Figure 1 likewise includes no disclosure in support of Petitioner’s position. Figures 1 and 3, and the short written description of Brown provide no support for Petitioner’s position that Brown teaches a projection providing resistance to the handle or bending at the port.

The Petition does not provide any further explanation for why Petitioner believes that Brown teaches “a **projection** that provides resistance against ‘**handle**’ movement, and opening Brown’s ‘**cover**’ requires bending Brown’s ‘**port**.’” Pet. 34; *see also id.* at 59–60, 69.

Petitioner’s declarant does provide some additional discussion. Ex. 1002 ¶¶ 197–198. We first note that, although the Petition cites to the declarant, it does not advance the reasoning of the declarant. *See* Pet. 19, 34, 59–60, 69. Thus, this is not a case where Petitioner’s declarant is merely expounding upon reasoning advanced in the Petition. Nor can it be said that Petitioner has advanced the position of its declarant in the Petition.

Independent of whether the Petition advances the position of its declarant, this position also lacks support in Brown. The declarant argues that “Brown depicts a **projection** . . . in contact with Brown’s ‘**handle 25**,’” and that, based on this contact, “a POSA would have understood that Brown’s **projection** contacts and provides resistance against Brown’s ‘**handle 25**.’” Ex. 1002 ¶¶ 197–198 (citing Ex. 1007, 3:24–38, Figs. 1, 3). The declarant continues: “The contact loads on the projection generated by this action causes bending and stress in the projection, and the projection transfers these forces to the port that it is attached to.” *Id.* ¶ 198.

As previously stated, Brown does not discuss Petitioner’s alleged “projection.” The cited description of Brown (Ex. 1007, 3:24–38) is silent as to any interaction of the handle with this projection. As noted, the identified “projection” appears to be merely a portion of cover 14.

Further, the declarant's position is suspect because it relies on aspects of the drawings that are not described in the specification. This is similar to where the Federal Circuit has ruled that Office Action rejections are improper for relying on the size or proportion of elements in the drawings which are not described. *See Hockerson-Halberstadt, Inc. v. Avia Group Intern., Inc.*, 222 F.3d 951, 956 (2000) ("Under our precedent, however, it is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue. *See In re Wright*, 569 F.2d 1124, 1127 (CCPA 1977) ('Absent any written description in the specification of quantitative values, arguments based on measurement of a drawing are of little value.')."); *see also In re Wilson et al.*, 312 F.2d 449, 454 (CCPA 1963) ("Patent drawings are not working drawings and this argument is predicated, moreover, on a greatly enlarged section of a small drawing obviously never intended to show the dimensions of anything.").

For all of the above reasons and based on the current record, we determine that Brown does not teach "a **projection** that provides resistance against '**handle**' movement" or that "opening Brown's '**cover**' requires bending Brown's '**port**,'" as asserted by Petitioner. *See* Pet. 19, 34, 59–60, 69.

4. *Failure of the Claims*

The Petition does not establish a reasonable likelihood of succeeding because of misuse of Brown.

Concerning claim 1, Petitioner argues that one of skill in the art would move the Brown's "projection" onto the accessory (i.e. hose) itself to avoid bending of the port. Pet. 61–62; *see also id.* at 70–71. The Petition then explains multiple further modifications to the structure of Brown based on

the new location of the projection to arrive at the limitations of the claims. *Id.* at 62–65, 69–73, 74.

For example, the Petition relies on these teachings to replace most of Brown’s port with Brown’s hose (i.e. claimed “accessory”), so that the “projection” can be in the same place as before the modification. *Id.* at 62. As another example, the Petition argues that Brown’s handle can be modified so that the projection fits into the handle thereby inhibiting the handle from moving when the hose is connected to the vacuum. *Id.* at 72–72.

However, each of these asserted modifications is based on a teaching that is not present in Brown. Brown does not teach “a **projection** that provides resistance against ‘**handle**’ movement” or that “opening Brown’s ‘**cover**’ requires bending Brown’s ‘**port**,’” as asserted by Petitioner. *See* PO Resp. 22. As repeatedly noted, the identified “projection” appears to be nothing more than a portion of cover 14 the accessory/hose port. Petitioner’s arguments regarding a projection that provides resistance and a bendable port in Brown, appear to be nothing more than an effort to create the limitations of the claims in the prior art based on improper hindsight.

For at least the above reasons, the Petition does not show how Brown teaches or suggests all of the limitations of the independent claims.

5. Dependent Claims 2–7, 12, 15

Because of their dependency from claims 1, 14, and 18, claims 2–12, 15–17, and 19–20 suffer from the same issues discussed above. Thus, Petitioner has not shown a reasonable likelihood of prevailing with respect to these claims.

E. 35 U.S.C. § 103 – Brown, Vuijk

Petitioner argues that the combination of Brown and Vuijk renders obvious claims 1–20. Pet. 88–93. Patent Owner argues that Petitioner has not demonstrated a reasonable likelihood of success showing that the independent claims are unpatentable. Prelim. Resp 23–26.

As noted by Patent Owner, “[t]he proposed combination of Brown and Vuijk does not cure any deficiencies of Brown.” *Id.* at 25 (emphasis omitted). This ground also relies on “Brown’s projection,” and on the previous discussion of moving Brown’s projection onto the accessory¹ (Pet. 88, 91–92), which we previously rejected.

For at least the above reasons, the Petition does not show how the combination of Brown and Vuijk teaches or suggests all of the limitations of the claims.

F. 35 U.S.C. § 103 – Dimbylow, Howes

Petitioner argues that the combination of Dimbylow and Howes renders obvious claims 1–7, 12, and 14–15. Pet. 23–52. Patent Owner argues that Petitioner has not demonstrated a reasonable likelihood of success. Prelim. Resp 9–17. We determine below that Petitioner does not establish a reasonable likelihood of prevailing.

1. Dimbylow

Dimbylow is directed to a handheld or stick vacuum cleaner, which can be seen in Figure 2, reproduced below. Ex. 1005 ¶ 3.

¹ Though the Petition argues that Vuijk teaches a projection (Pet. 92), it does not argue that Vuijk teaches or suggests a projection on an accessory.

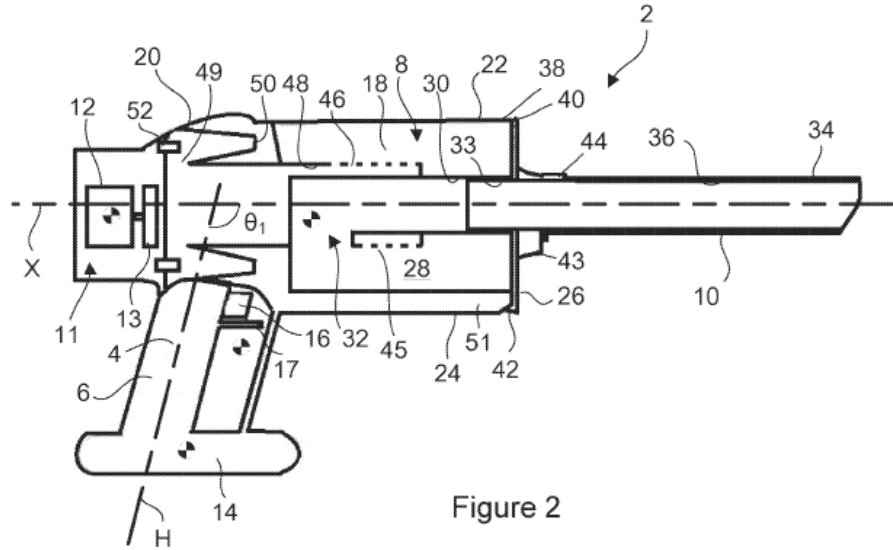


Figure 2

Figure 2 shows a vacuum with “cyclonic separating unit 8” having “dirt collector 38,” “cleaning tool 10” with “annular collar 43 that abuts end wall 26,” which “is held in a closed position by a user-operable catch 42,” and “motor 12.” *Id.* ¶¶ 30–31, 36–37, 39.

Dimbylow Figure 8, below, shows the vacuum being emptied of debris.

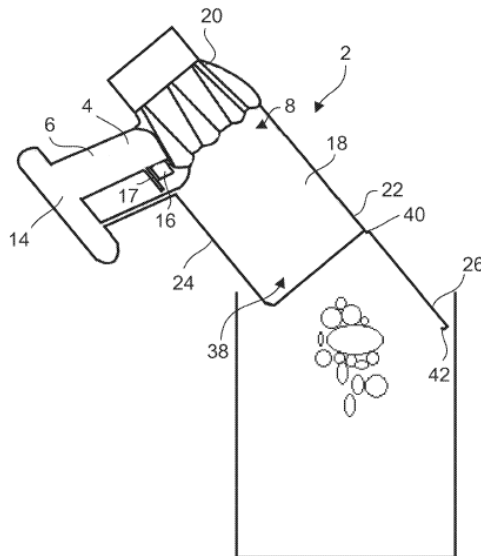


Figure 8

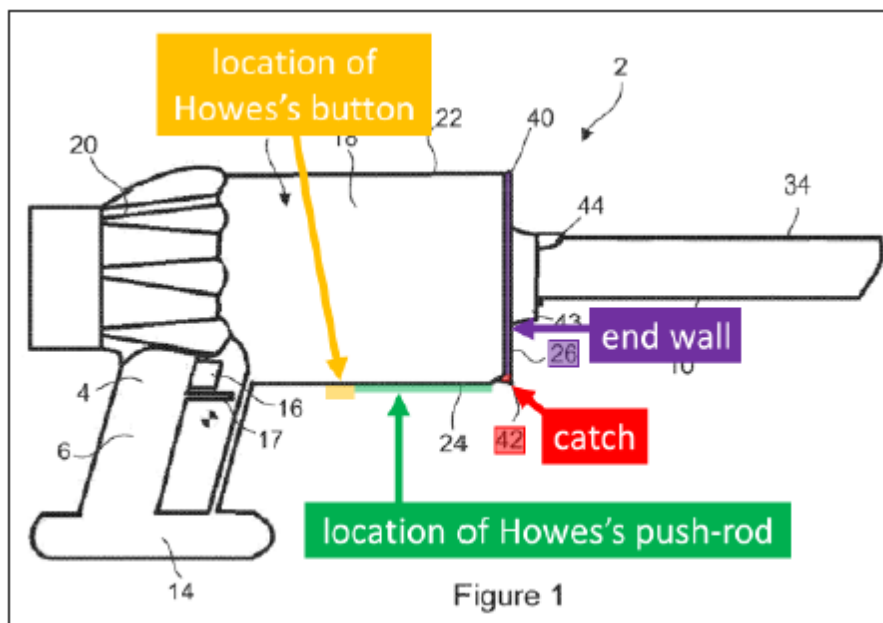
As shown in Figure 8, to empty the dirt collector 38, the user disconnects cleaning tool 10, releases catch 42 “and the end wall 26 [is] pivoted from its closed position into its open position.” *Id.* ¶ 48.

2. *Howes*

Howes is titled “Collecting Chamber for a Vacuum Cleaner.” Ex. 1006, code 54. Howes discloses a sliding push-rod that pushes on a catch to open the dust collection chamber for emptying the chamber. *Id.* at 4:6–10, Figs. 2b, 4.

3. *Analysis of Independent Claims 1, 14*

Petitioner argues that independent claims 1 and 14 are taught by the combination of Dimbylow and Howes. Pet. 23–47. Petitioner’s proposed combination can be seen in the below Figure from the Petition. *Id.* at 28.



In Petitioner’s Figure above (annotating Dimbylow’s Figure 1), the vacuum has been modified and annotated to indicate the “location of Howe’s push-rod” and “button.” The push-rod is drawn and labeled in green along the lower side of Dimbylow’s collection bin, and a button is shown and

labeled in yellow. These added features, in the combination, are positioned to allegedly act on the catch (42) to be able to open the dirt collector bin. *Id.* at 27–29.

Among other limitations, Claim 1 requires:

wherein ***the lock engaging member is inhibited from moving to the disengaged position when the accessory is connected*** to the dirty air inlet.

Ex. 1001, 42:11–15 (emphasis added). Independent claim 14 includes a similar limitation. *Id.* at 43:25–28.

Petitioner argues that when cleaning tool 10 (i.e. accessory) is in position on the vacuum, end wall 26 cannot open and, thus, that end wall is inhibited from opening. Pet. 45–46 (citing Ex. 1005, ¶ 37, Fig. 2; Ex. 1002 ¶¶ 143–145 (similar statements from Petitioner’s declarant)). Petitioner then asserts that the catch is therefore inhibited from moving to the disengaged position. *Id.* at 46.

The combination of Dimbylow and Howes does not teach this limitation and Petitioner’s assertions are not persuasive. As can be seen from the above annotated Figure, nothing inhibits Dimbylow’s catch 42 from moving to a disengaged position. *See also* Prelim. Resp 11–14. Rather, any time Howe’s button is pressed, thereby moving the push-rod (to the right in the Figure), catch 42 would disengage, whether the door opened or not. Though cleaning tool 10 (i.e. accessory) inhibits end wall 26 from opening, it has no impact on movement of catch 42 (i.e. lock engaging member) from the engaged to disengaged position as required by the claim. Thus, the lock engaging member of Petitioner’s combination, i.e., the catch, is not inhibited from moving to a disengaged position when the accessory, i.e., the cleaning

tool, is connected to the dirty air inlet, in contrast to the requirement of the challenged claims.

For these reasons, we determine that Petitioner has not established a reasonable likelihood of succeeding in showing that claims 1 and 14 are unpatentable.

4. Dependent Claims 2–7, 12, 15

Because of their dependency from claims 1 and 14, claims 2–7, 12, 15 suffer from the same issues discussed above. Thus, Petitioner has not shown a reasonable likelihood of prevailing with respect to these claims.

III. CONCLUSION

For the foregoing reasons, we do not institute trial.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), no *inter partes* review as to any claim of U.S. Patent 10,568,477 B2 is instituted.

IPR2024-00766
Patent 10,568,477 B2

FOR PETITIONER:

Christian Huehns
Matthew Hershkowitz
KIRKLAND & ELLIS LLP
christian.huehns@kirkland.com
matt.hershkowitz@kirkland.com

FOR PATENT OWNER:

Brian M. Buroker
Nathan Curtis
Shuo Josh Zhang
Vivian Lu
GIBSON, DUNN & CRUTCHER LLP
bburoker@gibsondunn.com
ncurtis@gibsondunn.com
szhang@gibsondunn.com
vlu@gibsondunn.com