Paper No. 14 Entered: September 8, 2025

UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD LIFEVAC, LLC, Petitioner, v. DCSTAR INC., Patent Owner. IPR2025-00454 Patent 11,478,575 B1

Before JAMES A. WORTH, MATTHEW S. MEYERS, and CYNTHIA M. HARDMAN, *Administrative Patent Judges*.

HARDMAN, Administrative Patent Judge.

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

I. INTRODUCTION

Petitioner LifeVac, LLC requests *inter partes* review of claims 1–17 of U.S. Patent No. 11,478,575 B1 ("the '575 patent," Ex. 1001). Paper 2 ("Pet."). Patent Owner DCSTAR Inc. filed a Preliminary Response. Paper 9 ("Prelim. Resp."). With our authorization, Petitioner filed a Preliminary Reply, and Patent Owner filed a Preliminary Sur-reply. Paper 12 ("Prelim. Reply"); Paper 13 ("Prelim. Sur-reply").

We have authority under 35 U.S.C. § 314(a), which provides that *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." After considering the briefing and cited evidence of record, we deny *inter partes* review because Petitioner does not establish a reasonable likelihood that it would prevail in showing that a key reference qualifies as prior art.

A. Real Parties in Interest

The parties each identify only themselves as the real party in interest. Pet. 73; Paper 3 (Patent Owner Mandatory Notices), 2.

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¹ The parties also filed briefs directed to discretionary denial issues. *See* Papers 6, 8. The Acting Director denied Patent Owner's request for discretionary denial and referred the Petition to the Board. *See* Paper 11. We do not address discretionary denial issues here, including Patent Owner's argument under 35 U.S.C. § 325(d) made in its Preliminary Response. *See* Prelim. Resp. 22–29; *see also* https://www.uspto.gov/patents/ptab/interim-director-discretionary-processes, Section I.C, Briefing ("The petitioner and patent owner should not present discretionary considerations in the petition or the Patent Owner Preliminary Response (POPR), respectively.").

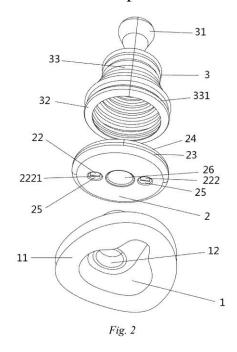
B. Related Matters

The parties identify PGR2023-00032, a petition for post-grant review of the '575 patent filed by Petitioner.² *See* Pet. 73; Paper 3, 2. Patent Owner also identifies five now-terminated lawsuits involving the '575 patent, which did not involve Petitioner. Paper 3, 2–3.

C. The '575 Patent (Ex. 1001)

The '575 patent, titled "Removal Device for Removing Obstruction in Respiratory Tract and Connector," issued on October 25, 2022, from U.S. Application 17/393,249, filed on August 3, 2021. Ex. 1001, codes (21), (22), (45), (54).

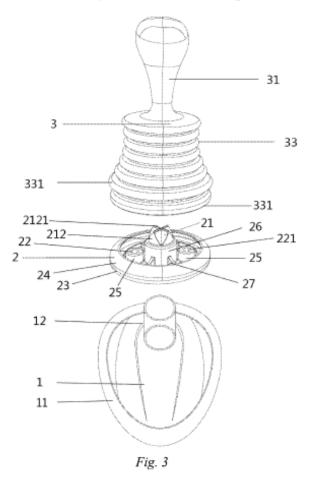
The '575 patent relates to "a removal device for removing an obstruction in a respiratory tract and a connector." *Id.* at 1:7–10. We reproduce below Figure 2 of the '575 patent.



² This petition was not instituted. See, e.g., Paper 11, 2.

Figure 2 is an exploded view of the removal device. *Id.* at 5:27–28. The device includes collapsible gasbag 3, connector 2, and face mask 1. *Id.* at 6:2–9. The "collapsible gasbag 3 is internally provided with a gas storage cavity, the top of the collapsible gasbag 3 is sealed, and the bottom of the collapsible gasbag is provided with an opening 32 in communication with the gas storage cavity." *Id.* at 6:9–14. "[A]n upper side of the connector 2 is hermetically connected to the opening 32" and includes bottom plate 23. *Id.* at 6:14–15, 6:18–20. "The collapsible gasbag 3 is not provided with a vent hole which is in direct communication with the outside." *Id.* at 6:32–33.

We reproduce below Figure 3 of the '575 patent.



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Figure 3 depicts another exploded view of the removal device. *Id.* at 5:29–31. Connector 2 includes first check valve 21 that communicates with the gas storage cavity and a second check valve 22 that communicates with the gas storage cavity and the outside. *Id.* at 6:49–53, 7:18–23. Second check valve 22 may be a duckbill valve comprising a gas inlet and a gas outlet (i.e., second slit 2221). *Id.* at 7:26–32.

The '575 patent explains that the device is operated by pressing downward on collapsible gasbag 3 so that

gas flows from the inside of the collapsible gasbag 3 to the outside of the collapsible gasbag 3 at the second check valve 22, and the first check valve 21 is tightly closed, that is, gas in the gas storage cavity may be discharged to the outside through the second check valve 22, but may not enter the respiratory tract of the patient through the first check valve 21. In the process of stretching the collapsible gasbag 3, the volume of the gas storage cavity increases, the second slit 2221 of the second check valve 22 is tightly closed, so as to prevent the outside gas from flowing into the gas storage cavity, and thus form negative pressure in the gas storage cavity, that is, gas pressure in the gas storage cavity is lower than gas pressure in the respiratory tract of the patient, gas flows from the outside of the collapsible gasbag 3 to the inside of the collapsible gasbag 3 at the first check valve 21, such that the gas pressure in the respiratory tract may push the obstruction outward, and thus discharge the obstruction out of the first check valve 21 into the collapsible gasbag 3, and the closed collapsible gasbag 3 may collect some debris from an oral cavity and esophagus to avoid residual backflow in the collapsible gasbag 3.

Id. at 8:6–28.

D. The Challenged Claims

Petitioner challenges claims 1–17 of the '575 patent. Claims 1, 3, 9, and 13 are independent. Claim 1 is representative for purposes of institution, and is reproduced below:

1. A removal device for removing an obstruction in a respiratory tract, the removal device comprising a collapsible gasbag, a connector and a face mask which are sequentially connected,

wherein the collapsible gasbag is internally provided with a gas storage cavity, a top of the collapsible gasbag is sealed, and a bottom of the collapsible gasbag is provided with an opening in communication with the gas storage cavity;

an upper side of the connector is hermetically connected to the opening, and the connector is provided with a first check valve and a second check valve, a first gas outlet end of the first check valve is in communication with the gas storage cavity, a second gas inlet end of the second check valve is in communication with the gas storage cavity, and a second gas outlet end of the second check valve is in communication with the outside; and

an upper side of the face mask is hermetically connected to a first gas inlet end of the first check valve, and a lower side of the face mask is provided with a flexible annular pad configured to attach to a face,

wherein the connector comprises a bottom plate and the first check valve and the second check valve are arranged on the bottom plate, wherein the first check valve and the second check valve allow gas flow to pass in opposite directions.

Ex. 1001, 9:59–10:18.

E. Asserted Grounds of Unpatentability

Petitioner asserts that claims 1–17 are unpatentable on the following two grounds:

Ground	Claim(s) Challenged	35 U.S.C. §	Reference(s)/Basis
1	$1-2, 7, 11-14^3$	103	Zhongnan ⁴
2	$3-6, 8-10, 15-17^5$	103	Zhongnan, Yuchang ⁶

Pet. 20. Petitioner supports its contentions with the Declaration of Stanley M. Yamashiro, Ph.D. (Ex. 1003), among other evidence. Patent Owner supports its contentions with the Declarations of RAM.SHAW PTE. LTD (Ex. 2001), Ligui He (Ex. 2002), and David Luo (Ex. 2022), among other evidence.

³ Although the Petition omits claims 11 and 12 in its summary of the grounds (Pet. 12) and in the heading for Ground 1 (*id.* at 21), we understand these omissions to be typographical errors because the Petition challenges claims 11 and 12 under Ground 1 (*id.* at 39–41).

⁴ Zhongnan, Chinese Patent Application Pub. No. CN 112932633 A, published June 11, 2021 (Ex. 1004). We refer herein to Petitioner's English language translation of Zhongnan ("Zhongnan," Ex. 1005).

⁵ Although the summary of grounds (Pet. 12) and heading for Ground 2 (*id.* at 43) include claims 11 and 12, we understand these inclusions to be typographical errors because the Petition does not include challenges for claims 11 and 12 under Ground 2 (*id.* at 39–41).

⁶ Yuchang, Korean Registered Patent KR 10-2229619, published March 18, 2021 (Ex. 1008); *see also* Petitioner's English language translation of Yuchang ("Yuchang," Ex. 1009).

II. ANALYSIS

A. Standard for Institution of Inter Partes Review

In an *inter partes* review, "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")). Petitioner ultimately bears the burden of persuasion to prove unpatentability of each challenged claim by a preponderance of the evidence. 35 U.S.C. § 316(e). This burden never shifts to Patent Owner. *See Dynamic Drinkware, LLC v. Nat'l Graphics, Inc.*, 800 F.3d 1375, 1378 (Fed. Cir. 2015).

The Board may authorize *inter partes* review if we determine that the information presented in the Petition and Patent Owner's Preliminary Response shows a reasonable likelihood that Petitioner will prevail with respect to at least one of the claims challenged in the petition. 35 U.S.C. § 314(a).

B. Whether Zhongnan Qualifies as Prior Art

Patent Owner raises a threshold issue, i.e., whether Zhongnan qualifies as prior art to the challenged claims. Because both of Petitioner's unpatentability grounds rely on Zhongnan, Patent Owner correctly asserts that without Zhongnan, Petitioner cannot demonstrate a reasonable likelihood of prevailing with respect to at least one challenged claim. *See* Prelim. Resp. 9. We thus first consider whether Zhongnan qualifies as prior art.

Petitioner asserts that Zhongnan is prior art under 35 U.S.C. § 102(a)(1) because it was published on June 11, 2021, which is less than two months before the August 3, 2021 effective filing date of the challenged claims. *See* Pet. 20; Ex. 1005, code (43); Ex. 1001, code (22); Prelim. Resp. 7.

Patent Owner responds that Zhongnan is disqualified as prior art under 35 U.S.C. § 102(b)(1)(B) "because an inventor-originated public disclosure occurred before Zhongnan's publication date." Prelim. Resp. 9; see also id. at 7 n.3. The alleged public disclosure is "IDEAR" (Exhibits 2004, 2008, 2021), relating to the disclosure of IDEAR-branded products, which Patent Owner alleges originated from the '575 patent's named inventor, Ligui He. See Prelim. Resp. 10; Ex. 1001, code (72). Patent Owner contends that IDEAR was disclosed "as early as April 28, 2021 . . . on an Amazon storefront doing business as Cultures Inc." Prelim. Resp. 10.

To provide context for our analysis, we begin with an overview of the applicable legal standards regarding prior art exceptions under 35 U.S.C. § 102(b)(1)(B). We then turn to summarizing IDEAR and analyzing its prior art status.

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⁷ IDEAR appears in the record as Exhibit 2004, and "[c]learer versions of IDEAR are provided in Exhibits 2008 (2-pack) and 2021 (3-pack)." Prelim. Resp. 10 n.4. Headers on Exhibits 2008 and 2021 indicate that these documents were obtained from the Internet Archive's Wayback Machine on January 23, 2022. *See also* Prelim. Reply 6 (referencing the Jan. 23, 2022 archive date). Given the poor quality of the text in Exhibit 2004, we cite Exhibits 2004 and 2021, both of which relate to a 3-pack of IDEAR anti-choking devices, interchangeably herein.

1. Legal Standards – Prior Art Exceptions Under 35 U.S.C. § 102(b)(1)(B)

Under the America Invents Act ("AIA"), prior art defined by 35 U.S.C. § 102(a)(1) "include[s] situations in which the claimed invention was 'described in a printed publication, or in public use, on sale, or otherwise available to the public before the effective filing date of the claimed invention." *Sanho Corp. v. Kaijet Tech. Int'l Ltd.*, 108 F.4th 1376, 1380 (Fed. Cir. 2024) (quoting 35 U.S.C. § 102(a)(1)). "However, Congress provided exceptions for certain references that would otherwise be prior art." *Id.*

The exception relevant here is found in 35 U.S.C. § 102(b)(1)(B). As explained in the Manual of Patent Examining Procedure (MPEP), this section

provides that a disclosure which would otherwise qualify as prior art under AIA 35 U.S.C. 102(a)(1) (patent, printed publication, public use, sale, or other means of public availability) is excepted as prior art if: (1) the disclosure was made one year or less before the effective filing date of the claimed invention; and (2) the subject matter disclosed had been previously publicly disclosed by the inventor, a joint inventor, or another who obtained the subject matter directly or indirectly from the inventor or joint inventor.

MPEP § 2153.02 (9th ed. rev. 01.2024 Nov. 2024); *see also Sanho*, 108 F.4th at 1381.

As to point (1), there is no dispute that Zhongnan was published one year or less before the effective filing date of the challenged claims. *See*, *e.g.*, Ex. 1005, code (43); Pet. 11, 20; Prelim. Resp. 9–10. Thus, we focus on point (2), which requires that IDEAR be previously publicly disclosed by

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the inventor, and that Zhongnan and IDEAR disclose the same subject matter.

2. Analysis

We begin in section (a) with an overview of IDEAR, then in section (b) we discuss the use of IDEAR during prosecution of the '575 patent. In section (c) we address whether IDEAR was publicly disclosed before Zhongnan. We then turn to whether the information in IDEAR originated from inventor He (section (d)); whether the relied-upon subject matter in Zhongnan was disclosed in IDEAR (section (e)); and whether the Board should institute to permit Petitioner to take discovery of Patent Owner's evidence regarding whether Zhongnan is disqualified as prior art (section (f)).

a. Overview of IDEAR

IDEAR (Exhibit 2004) is a multipage document comprising screenshots from an Amazon.com listing for a 3-pack of IDEAR-branded anti-choking devices. The version of IDEAR at Exhibit 2004 was used by the Examiner during prosecution of the '575 patent. *See*, *e.g.*, Ex. 1002, 135, 145; Prelim. Resp. 10. Given the poor quality of Exhibit 2004, Patent Owner provides "[c]learer versions" of IDEAR in Exhibit 2008 (2-pack) and Exhibit 2021 (3-pack). *See* Prelim. Resp. 10 n.4. As noted above (*supra* n.7), we cite Exhibits 2004 and 2021 interchangeably.

IDEAR includes text and graphics describing the anti-choking device, such as the following graphic:



Ex. 2021, 1. The graphic above compares the IDEAR anti-choking device (on the left) to a competitor's device (on the right). Text associated with the IDEAR device states: "Our separate inlet and outlet valves maximize suction power without risking of secondary air intake to patient during use." *Id*.

As shown in the excerpt below, IDEAR includes a section with "Product details," including a "Date First Available," a "Manufacturer," and a product number (Amazon Standard Identification Number, or ASIN):

Product details Package Dimensions : 13.23 x 10.63 x 4.25 inches; 1.08 Pounds Date First Available : April 28, 2021 Manufacturer : Cultures Inc ASIN : B093NZN5C7 Best Sellers Rank: #16,792 in Health & Household (See Top 100 in Health & Household) #32 in First Aid Kits (Health & Household) Customer Reviews:

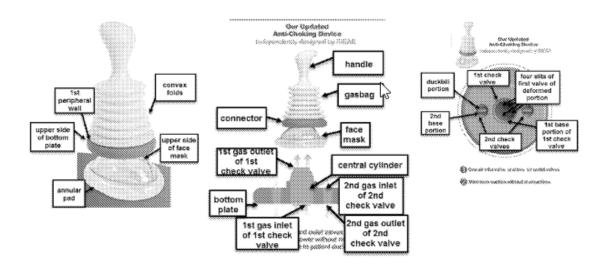
The excerpt from IDEAR above shows a red box (added by Patent Owner) highlighting certain "Product details," including "Date First Available:

April 28, 2021," "Manufacturer: Cultures Inc," and "ASIN:

B093NZN5C7." Id. at 3. IDEAR also includes customer reviews. Id. at 4.

b. Use of IDEAR During Prosecution

During prosecution of the challenged patent, the Examiner rejected the claims as anticipated because the "IDEAR anti-choke device has been listed on sale on Amazon since April 28, 2021." Ex. 1002, 135. The Examiner presented the following annotated figures from IDEAR to show how the claim elements of the then-pending claims were previously disclosed in IDEAR:



Annotated figs of IDEAR anti-choke device.

Ex. 1002, 135. The graphic above shows images of an anti-choking device from the IDEAR reference, together with the Examiner's mapping of the claim elements to different features of the device.

In response to the anticipation rejection, Patent Owner argued that IDEAR is disqualified as prior art because the "subject matter of IDEAR is attributable to the inventor of the present application, specifically, the removal device shown in the IDEAR publication." Ex. 1002, 126. Patent

Owner supported this assertion with a declaration from inventor Ligui He (the "He Declaration"), which stated that "IDEAR is based on the conception or development of the subject matter disclosed and claimed in the present application which are attributable to me." *Id.* at 131.8 Patent Owner concluded that because "the subject matter of IDEAR originated from the inventor of the present application and was publicly disclosed less than one year before the effective filing date of the present application, IDEAR is disqualified as prior art." *Id.* at 126.

Patent Owner's arguments persuaded the Examiner to withdraw the anticipation rejection. Ex. 1002, 103. The Examiner stated: "The declaration under 37 CFR 1.130 filed 5/19/22 is sufficient to overcome the rejection of claims 1–3, 5, and 7–17 based upon IDEAR prior art applied under 3 U.S.C. 102 (a)(1)." *Id.* at 34.

c. Whether IDEAR was Publicly Disclosed Before Zhongnan
Patent Owner argues that IDEAR was publicly disclosed on an
Amazon.com storefront "as early as April 28, 2021," which is several weeks
before Zhongnan was published on June 11, 2021. Prelim. Resp. 10
(emphasis omitted); Ex. 1005, code (43).

On this record, we determine there is a reasonable likelihood that IDEAR was publicly disclosed on Amazon.com as early as April 28, 2021. As we discuss in the subsections below, this disclosure date is supported by at least (i) Patent Owner's declarations and supporting evidence, and (ii) Petitioner's own admission in a cease and desist letter that the IDEAR anti-choking device was "first available" on Amazon on April 28, 2021.

⁸ A second copy of the He Declaration appears in the record at Exhibit 2002.

This disclosure date is also consistent with other documentation of record, as we will discuss in subsection (iii) below.

i. Patent Owner's Declarations and Supporting Evidence

We begin with a discussion of two declarations submitted by Patent Owner, i.e., the RAM.SHAW Declaration (Exhibit 2001) and the Luo Declaration (Exhibit 2022).

The RAM.SHAW Declaration is made on behalf of RAM.SHAW PTE.LTD, a company that is under common ownership with Patent Owner DCSTAR. *See* Prelim. Resp. 14; Ex. 2003; Ex. 2022 ¶¶ 1, 2; Ex. 2028, 1. RAM.SHAW owns the "IDEAR" trademark. Ex. 2001 ¶ 2; Ex. 2022 ¶ 6; Ex. 2003. The RAM.SHAW Declaration is signed by RAM.SHAW's Chief Operating Officer, Flora Chan. *See* Ex. 2001 ¶ 1, p. 3.

The Luo Declaration is signed by David Luo, an officer and the sole shareholder of both DCSTAR Inc. and RAM.SHAW. Ex. 2022 ¶¶ 1, 2.

According to these declarations, RAM.SHAW operates an Amazon storefront under the name Cultures Inc., and authorizes Cultures Inc. to use the IDEAR trademark and sell IDEAR-branded products. *See* Ex. 2001 ¶ 4; Ex. 2022 ¶¶ 5–7; *see also* Ex. 2005 (Amazon.com Seller Profile for Cultures Inc. stating, "Our store sells products under the U.S.-registered IDEAR brand (Registration No. 6693596). The technology used in IDEAR products is licensed from DCSTAR INC.").

One product in Cultures Inc.'s Amazon storefront is an IDEAR-branded anti-choking device bearing Amazon Standard Identification Number (ASIN) B093NZN5C7. *See*, *e.g.*, Ex. 2001 ¶¶ 4–5; Ex. 2021, 3. We reproduce below an annotated excerpt from IDEAR:

Product details

Ex. 2021, 3. This excerpt from IDEAR shows a red box highlighting certain "Product details," including ASIN B093NZN5C7 and a "Date First Available" of April 28, 2001. *See id*.

RAM.SHAW, through its Chief Operating Officer Ms. Chan, confirms that "the website featured in Ex. 2004⁹ was publicly disclosed at the Amazon Store at least as early as April 28, 2021." Ex. 2001 ¶ 5. This testimony is consistent with information in the IDEAR reference itself.

On this record, we find that the RAM.SHAW and Luo declarations support that IDEAR was publicly disclosed as early as April 28, 2021.

ii. Petitioner's Cease and Desist Letters

We find that the April 28, 2021 disclosure date of IDEAR is bolstered by Petitioner's recognition of this same date in a 2022 cease and desist letter it sent to Cultures Inc.

More specifically, Patent Owner cites two cease and desist letters, dated 2021 and 2022, that Petitioner sent to Cultures Inc. urging Cultures to cease sales and advertising of IDEAR anti-choking devices. *See* Prelim. Resp. 12; Exs. 2006, 2007. Although we find only the 2022 letter probative of the public disclosure date of IDEAR, for completeness we begin with a discussion of the 2021 letter.

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⁹ As a reminder, Exhibit 2021 is a clearer copy of IDEAR as found at Exhibit 2004. *See* Prelim. Resp. 10 n.4, 15.

Petitioner's first cease and desist letter to Cultures is dated September 8, 2021. *See* Ex. 2006, 1. The letter asserts that Cultures' "production, marketing, and sale of the IDEAR product(s) infringes upon and otherwise violates LifeVac's intellectual property rights." *Id.* The letter attaches a screenshot from Amazon.com depicting the IDEAR anti-choking device. *See id.* at 4.

We do not find this 2021 letter probative of the public disclosure date of IDEAR because we see no information in the letter or its attachments indicating that IDEAR was available before Zhongnan was published on June 11, 2021. Accordingly, we do not find that the 2001 cease and desist letter tends to assist Patent Owner in disqualifying Zhongnan as prior art.

Petitioner's second cease and desist letter to Cultures is dated July 13, 2022. *See* Ex. 2007, 1. The letter asserts that several IDEAR products "may infringe" LifeVac's patent, and includes the following table of accused products:

Table 1 - Cultures Inc. Accused Products on Amazon.com

ASIN	Date First Available	Amazon Storefront	
B093NTJ3L5	April 28, 2021	https://www.amazon.com/s?me=A23276YMZUF0ZS&marketplaceID=ATVPDKIKX0DER	
B093PNYMF8	April 28, 2021	https://www.amazon.com/s?me=A23276YMZUF0ZS&marketplaceID=ATVPDKIKX0DER	
B093NZN5C7	April 28, 2021	https://www.amazon.com/s?me=A23276YMZUF0ZS&marketplaceID=ATVPDKIKX0DER	
B09DGBTLN7	August 24, 2021	https://www.amazon.com/s?me=A23276YMZUF0ZS&marketplaceID=ATVPDKIKX0DER	
B09DGDF44G	August 24, 2021	https://www.amazon.com/s?me=A23276YMZUF0ZS&marketplaceID=ATVPDKIKX0DER	
B09XHYC4TQ	April 8, 2022	https://www.amazon.com/Choking-Rescue-Device-Suction-Portable/dp/B09XHYC4TQ/ref=sr_1_1?crid=727D0UGX0C	
B09XTK23YW	April 13, 2022	https://www.amazon.com/IDEAR-Essential-Apparatus-Obstructed- Material/dp/B09XTK23YW/ref=sr_1_6?keywords=IDEAR&qid=1651511444&sr=8-6	

Ex. 2007, 1–2. The table above is titled, "Table 1 – Cultures Inc. Accused Products on Amazon.com." *Id.* at 2. The third entry row lists product number ASIN B093NZN5C7, indicates a "Date First Available" of April 28, 2021, and provides a link to an Amazon.com web address. *Id.*

We find that this 2022 cease and desist letter, which was authored by Petitioner's own counsel, is consistent with the RAM.SHAW Declaration and constitutes an admission that an anti-choking device having ASIN B093NZN5C7—the same device depicted in IDEAR and addressed by the RAM.SHAW Declaration—was available on Amazon as early as April 28, 2021.

iii. Other Considerations

We agree with Patent Owner that "the prosecution history of the patent bolsters the public availability of IDEAR." Prelim. Sur-reply 6. On

this record, it appears that the Examiner "independently discovered the IDEAR reference," supporting the public availability of IDEAR. *See* Prelim. Resp. 12–13; *see also* Ex. 1002, 132, 135. Additionally, the Examiner ascertained that the "IDEAR anti-choke device has been listed on sale on Amazon since April 28, 2021." Ex. 1002, 135. We acknowledge Petitioner's argument that "the Examiner accessed the IDEAR document on March 22, 2022" and thus the prosecution history "fail[s] to credibly establish the date of the prior disclosure." Prelim. Reply 6. Nevertheless, we note that during prosecution, the applicant did not dispute or clarify the April 28, 2021, date identified by the Examiner, which is some support for the correctness of the Examiner's statement and the April 28, 2021, date shown in the IDEAR reference cited by the Examiner.

Furthermore, IDEAR Amazon listings showing this same date of first availability (April 28, 2021) were independently captured by the Internet Archive's Wayback Machine on January 23, 2022. *See* Exs. 2008, 2021; *see also* Prelim. Reply 6 n.1 (Petitioner acknowledging the January 23, 2022 archive date). These listings were archived some nine months before the '575 patent issued, and thus before any litigation commenced. Nothing in the record suggests that the date of first availability in these archived listings—or in Amazon listings more generally—is unreliable.

In sum, all of the documentation of record is consistent with testimony from RAM.SHAW and with Petitioner's own admission that IDEAR was available as of April 28, 2021. Ex. 2001 ¶ 5; Ex. 2007, 2. Nothing in the record suggests that this date is inaccurate or unreliable. Petitioner provides no evidence, or even a suggestion, that IDEAR was not available as of April 28, 2021.

iv. Conclusion

In view of the evidence and considerations discussed above, we find on this record that Patent Owner has demonstrated a reasonable likelihood that IDEAR was publicly available as early as April 28, 2021, which is before Zhongnan was published on June 11, 2021.

d. Whether the Information in IDEAR Originated from Inventor He

We next consider whether the information in IDEAR originated from inventor He.

As discussed above (*supra* Section II.B.2.b), this issue was previously addressed during prosecution. There, Mr. He submitted a declaration confirming that "IDEAR is based on the conception or development of the subject matter disclosed and claimed in the present application which are attributable to me." Ex. 1002, 131. Petitioner argues that the He Declaration is insufficient because it "does not disclose any context regarding the attribution of the IDEAR document to him." *See* Prelim. Reply 7. The Examiner, however, expressly found the declaration sufficient to overcome the rejection. Ex. 1002, 34.

Moreover, we agree with Patent Owner that the record contains "further support of He's contribution to the IDEAR product." Prelim. Surreply 7 (citing Ex. 2029, 2). Specifically, Mr. Luo testifies that DCSTAR commissioned Mr. He "to carry out the research and development activities that led to the invention claimed in the '575 patent." Ex. 2022 ¶ 3; *see also* Prelim. Resp. 14. Patent Owner corroborates this testimony with citation to a Product Co-Development Agreement between DCSTAR and Mr. He for

"Co-Development of Removal Device for Removing Obstruction in Respiration," executed on June 10, 2020. *See* Ex. 2029, 1, 6.

Mr. Luo further testifies that "Ligui He subsequently obtained the '575 patent and assigned that patent to DCSTAR INC." and that DCSTAR in turn licensed the patent to RAM.SHAW. Ex. 2022 ¶ 4; see also Ex. 2028, Section 3.1. Pursuant to this license, RAM.SHAW commercializes the '575 patented technology through the Cultures Inc. Amazon storefront. Ex. 2022 ¶ 5. We find that the evidence discussed above adequately supports Patent Owner's assertion that Mr. He, "who was engaged by DCSTAR, developed the product ultimately sold under the IDEAR brand through [the Cultures Amazon store]—confirming He's connection to the disclosed subject matter." Prelim. Sur-reply 8.

In view of the evidence and considerations discussed above, we find on this record that Patent Owner has demonstrated a reasonable likelihood that the information in IDEAR originated from inventor Mr. He.

> e. Whether the Relied-Upon Subject Matter in Zhongnan Was Disclosed in IDEAR

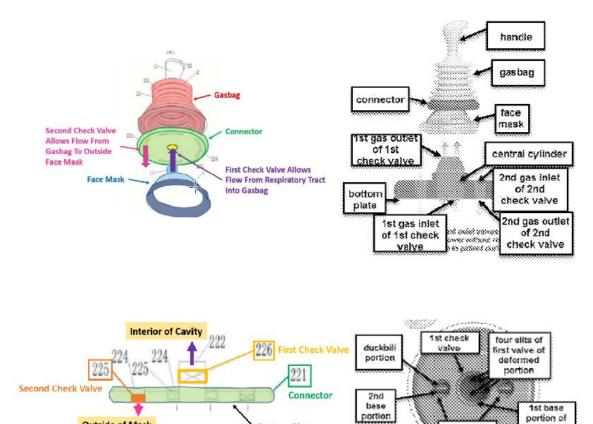
We next analyze whether the relied-upon subject matter in Zhongnan was disclosed in IDEAR. *See* MPEP § 2153.02 ("The subject matter in the prior disclosure being relied upon under AIA 35 U.S.C. 102(a) must be the same 'subject matter' as the subject matter previously publicly disclosed by the inventor for the exceptions in AIA 35 U.S.C. 102(b)(1)(B) and AIA 102(b)(2)(B) to apply.").

Patent Owner asserts that because Petitioner maps the features of Zhongnan to the challenged claims, and the Examiner similarly mapped the features of IDEAR to the pending claims, "[i]t follows that all claim features

Outside of Mask

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alleged to be present in Zhongnan are also shown in IDEAR." Prelim. Resp. 19. We reproduce below Patent Owner's comparison of Petitioner's "annotated figures from Zhongnan and the Office's annotated showing of IDEAR":



Id. at 25. The color figures on the left are Petitioner's annotations of Zhongnan's Figures 2 and 3, as submitted in the Petition. *See* Pet. 37. The black and white figures on the right are the Examiner's annotation of IDEAR during prosecution. *See* Ex. 1002, 135.

Bottom Plate

2nd check

valves

1st check

valve

We agree with Patent Owner that a comparison of the two sets of figures demonstrates that "IDEAR publicly disclosed all relevant features of Zhongnan." Prelim. Resp. 19. Indeed, Petitioner admits that "IDEAR shows every element of the challenged claims, like Zhongnan." Paper 8, 24;

see also id. at 22 (noting "the similarity of the disclosure" between IDEAR and Zhongnan). As such, we agree with Patent Owner that "[t]he fact that IDEAR discloses all of the features in Zhongnan does not appear to be in dispute." Prelim. Resp. 18; see also Prelim. Sur-reply 5 n.2 ("Notably, Petitioner does not dispute [that] IDEAR disclosed the same subject matter as Zhongnan.").

f. Whether the Board Should Institute to Permit a Fuller Development of the Record Regarding Whether Zhongnan is Prior Art

Petitioner argues that Patent Owner's "evidence, both documentary and testimonial[,] lack the corroboration and detail that would allow the Board to assess its credibility at the institution stage" and that we should institute to allow Petitioner "the opportunity to take discovery" on this evidence. Prelim. Reply 5, 1. Under the circumstances presented here, we disagree.

Our rules require that in determining whether to institute *inter partes* review, we "take into account a patent owner preliminary response where such a response is filed, *including any testimonial evidence*." 37 C.F.R. § 42.108(c) (emphasis added); Prelim. Sur-reply 3. As Patent Owner correctly notes, "the Board routinely weighs declaratory testimony at the institution[] stage and virtually always makes institution decisions without the benefit of cross-examination." Prelim. Resp. 19–20 (emphasis omitted) (citing *LG Elecs. Inc. v. Wi-LAN Inc.*, IPR2018-00704, Paper 14 at 13–14 (PTAB 2018); *Freebit AS v. Bose Corp.*, IPR2017-01308, Paper 8 at 28 (PTAB 2017)). For example, in *LG Electronics* and *Freebit*, the Board denied institution, finding that the patent owner had provided sufficient evidence to antedate the petitioners' proffered prior art references. *See LG*

Elecs., IPR2018-00704, Paper 14 at 7; *Freebit*, IPR2017-01308, Paper 8 at 25, 34.¹⁰

Petitioner contends that *LG Electronics* is distinguishable because there, unlike here, the record included various documentation that "serve[d] as effective corroboration" of the declarant's testimony.¹¹ Prelim. Reply 4; *see also LG Elecs.*, IPR2018-00704, Paper 14 at, e.g., 9–10. Here, however, we do not rely solely on testimony from RAM.SHAW and Mr. Luo. Rather, the record also includes Petitioner's own admission in the 2022 cease and desist letter,¹² the prosecution history, and the other documentation and considerations discussed above.

Petitioner concedes that "in institution decisions, the Board may consider hearsay evidence," but then asserts that the Board "typically only does so with respect to expert testimony and non-dispositive issues."

¹⁰ Patent Owner also cites *Safe Haven Wildlife Removal and Property Mgmt. Experts LLC v. Meridian Wildlife Servs. LLC*, IPR2023-01340, Paper 12 at 7–8 (PTAB 2024) and *Dish Network LLC v. Sound View Innovations LLC*, IPR2020-00969, Paper 23 at 12–13 (PTAB 2021). Prelim. Resp. 19–20. We do not find these cases helpful because in both, hearsay evidence did not factor into the Board's institution decision. *See Safe Haven*, IPR2023-01340, Paper 12 at 8 ("As we deny institution on the merits, we do not address Patent Owner's arguments that Dr. Chamberlain's Declaration is inadmissible."); *Dish Network*, IPR2020-00969, Paper 23 at 12–13 (determining that panel "need not address" the petitioner's argument that it should be afforded the ability to "cross-examine authors of the hearsay statements").

¹¹ Petitioner does not address the *Freebit* case.

¹² We agree with Patent Owner that the "cease and desist letters are authorized party admissions and are not hearsay under FRE 801(d)(2)." Prelim. Sur-reply 7 n.5. Petitioner fails to address the cease and desist letters in its Preliminary Reply. *See id.* at 5; *see generally* Prelim. Reply.

Prelim. Reply 3. Petitioner contends that "[w]hile expert testimony is the type of evidence that a Board can independently evaluate based on the Board's technical background, the same is not true for factual evidence." *Id.* at 4. These assertions are unavailing. First, Petitioner does not cite any authority in support of these assertions. Second, the assertions are inconsistent with at least the *LG Electronics* and *Freebit* cases discussed above, wherein the Board evaluated factual, non-expert evidence alleging conception and reduction to practice.

We also agree with Patent Owner that "[d]espite ample opportunity to do so in its Petition, its DDB [Discretionary Denial Brief] Opposition, and now in its POPR Reply, *Petitioner has failed to present any evidence showing Zhongnan is not disqualified under 35 U.S.C. § 102(b)(1)(B).*"¹³ Prelim. Sur-reply 8. Nor has Petitioner offered any theory or suggestion that undermines Patent Owner's evidence or suggests that IDEAR was not available prior to Zhongnan.

Under the circumstances here, we are not persuaded that instituting *inter partes* review to allow Petitioner to take discovery of Patent Owner's testimonial and documentary evidence is an appropriate use of Board resources.

3. Conclusion on the Prior Art Status of Zhongnan

After considering the arguments and cited evidence of record, we find that Petitioner has not established a reasonable likelihood of showing that Zhongnan qualifies as prior art. Instead, we find that Petitioner has not

¹³ Although the Board did not authorize Petitioner to file evidence with its Preliminary Reply, Petitioner sought authorization only for a 7-page brief; it did not request to file evidence. *See* Ex. 3001.

established a reasonable likelihood of showing that Zhongnan qualifies as prior art, i.e., because of the exception recited in 35 U.S.C. § 102(b)(1)(B). Accordingly, we find that Petitioner does not show a reasonable likelihood of prevailing on Grounds 1 or 2, both of which rely on Zhongnan.

III. CONCLUSION

For the foregoing reasons, we determine that the information presented does not establish a reasonable likelihood that Petitioner would prevail in showing that at least one challenged claim of the '575 patent is unpatentable.

IV. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that the Petition is *denied*, and no trial is instituted.

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