

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE PATENT TRIAL AND APPEAL BOARD

---

PRECISION PLANTING LLC,  
Petitioner,

v.

MASCHIO GASPARDO S.p.A.,  
Patent Owner.

---

IPR2024-00008  
Patent 8,770,121 B2

---

Before BENJAMIN D. M. WOOD, LYNNE H. BROWNE, and  
RICHARD H. MARSCHALL, *Administrative Patent Judges*.

WOOD, *Administrative Patent Judge*.

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

## I. INTRODUCTION

### A. *Background*

Precision Planting LLC (“Petitioner”) filed a Petition (Paper 2, “Pet.”) requesting *inter partes* review of claims 1–5, 7–14, and 16 of U.S. Patent No. 8,770,121 B2 (Ex. 1001, “the ’121 patent”). Maschio Gaspardo S.p.A. (“Patent Owner”) filed a Preliminary Response (Paper 7, “Prelim. Resp.”).

We have authority under 35 U.S.C. § 314, 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.” 35 U.S.C. § 314(a). Upon considering the Petition and the Preliminary Response, we determine that Petitioner has satisfied this threshold requirement, and therefore we institute *inter partes* review of claims 1–5, 7–14, and 16 of the ’121 patent.

### B. *Related Proceedings*

The parties identify *Maschio Gaspardo S.p.A. v. Precision Planting LLC*, Civ. No. 1:22-cv-01394 (D. Del., filed Oct. 24, 2022) (“District Court Action”) as a judicial matter that would affect, or be affected by, a decision in this proceeding. Pet. 90; Paper 11, 1.

### C. *The ’121 Patent*

The ’121 patent is titled “Seed Distribution Element for Precision Seed Drills, Seed Drill Including Said Element.” Ex. 1001, code (54). The ’121 patent issued July 8, 2014 from a PCT application filed November 10, 2011, and claims priority to an Italian patent application filed November 12, 2010. *Id.* at codes (45), (22), (30). Figures 1 and 2 depict an embodiment of

a seed distribution element according to the invention, and are reproduced below:

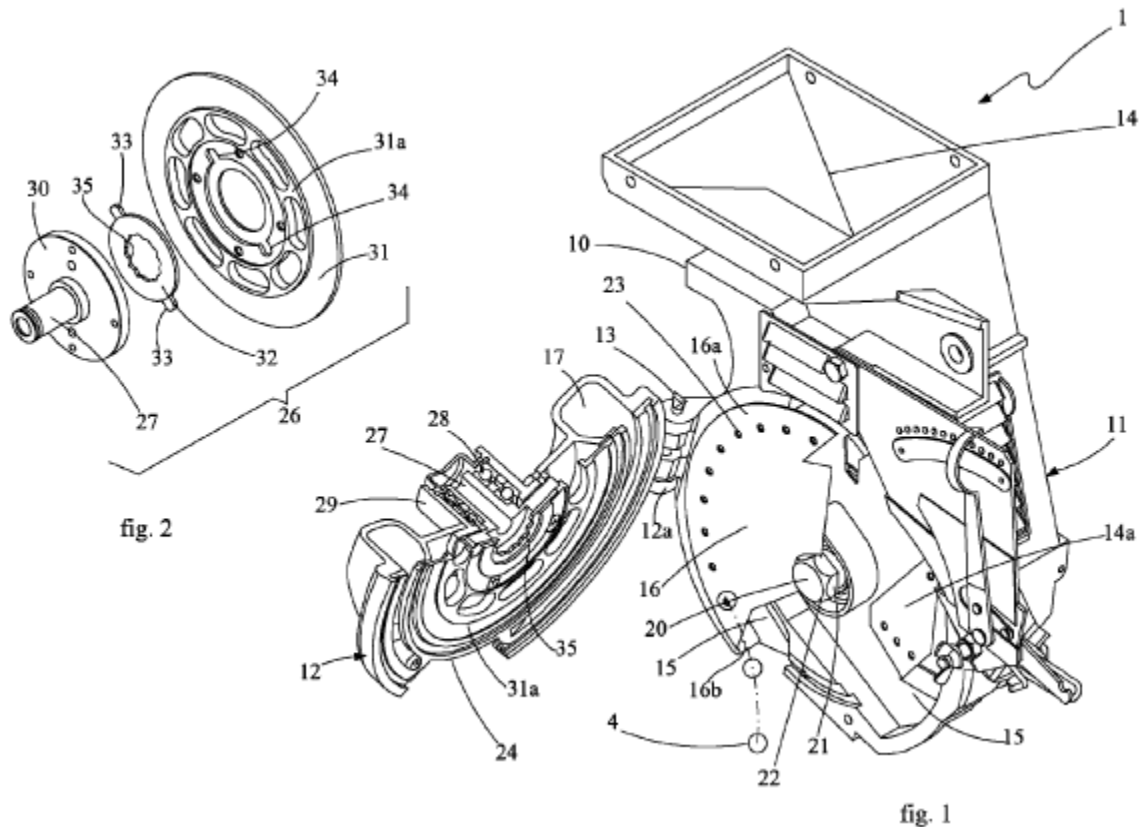


Figure 1 above depicts seed distribution element 1 and Figure 2 depicts thrust-bearing element 26 of the seed distribution element. As shown in Figure 1, seed distribution element 1 comprises housing 10 with “fixed portion 11 fixed in a stable manner on frame 6” (shown in Figure 3) and “movable portion 12 hinged in the region of a hinge 12a on the fixed portion 11 by means of a removable hinge pin 13.” Ex. 1001, 2:44–47. “[S]owing disc 16 is removably mounted on a motor-driven drive shaft 20, supported in the fixed portion 11 and driven in rotation at predetermined adjustable speeds.” *Id.* at 2:60–63. Sowing disc 16 separates a “seed collection chamber 15 from a suction chamber 17.” *Id.* at 2:54–56. The sowing disc 16 also contains one or more “ring(s) of holes 23.” *Id.* at 3:3–5. The disc is

“removably mounted on a motor-driven drive shaft 20, supported in the fixed portion 11 and driven in rotation at predetermined adjustable speeds by a transmission” (not shown). *Id.* at 2:60–63.

When movable portion 11 is closed on fixed portion 12, seal 24 “is placed in sliding contact with the facing surface of the disc 16.” Ex. 1001, 3:6–8. This delimits “a circumferential segment in which the holes 23 are subjected” to a pressure differential. *Id.* at 3:6–10. “By reason of the pressure differential between the two opposed surfaces of the sowing disc, the seeds 4 are held, one to each hole 23 when the holes pass in the seed collection chamber 15, and are released in the region of the pipe 25 when the pneumatic effect of the pressure differential ceases.” *Id.* at 3:15–19.

To limit the wear on seal 24 resulting from sliding against the surface of disc 16, “a thrust-bearing element indicated as a whole by 26 is mounted on the movable portion.” Ex. 1001, 3:21–24. Thrust-bearing element 26 comprises “shaft 27 rotatably mounted by means of bearings 28 in a seat 29 of the movable portion 12.” *Id.* at 3:25–27. Shaft 27 is fixed to thrust-bearing plate 31, which “can bear on that surface of the disc which faces the seal 34 in a zone radially inside the ring of holes 23 in order to withstand at least some of the axial load produced by the disc 16 on the seal 24.” *Id.* at 3:27–32.

#### *D. The Challenged Claims*

Petitioner challenges claims 1–5, 7–14, and 16 of the ’121 patent. Pet. 10. Claim 1 is reproduced below:<sup>1</sup>

---

<sup>1</sup> We add identifiers for each limitation corresponding to the subsection headings under which the limitation is discussed in the Petition. Pet. 36–46.

1. [i] A seed distribution element for precision pneumatic seed drills, comprising:
  - [ii] a sowing disc which is rotated by a motor-driven transmission drive shaft at controlled speed,
  - [iii] a housing with a fixed portion and a portion which is movable relative to the fixed portion and can be closed against the fixed portion,
  - [iv] a seed collection chamber being defined in the fixed portion,
  - [v] a pneumatic suction chamber being defined in the movable portion,
  - [vi] the sowing disc being interposed between the fixed and movable portions and having opposed surfaces delimiting the chambers,
  - [vii] the sowing disc having at least one ring of selector holes extending between the opposed surfaces, and
  - [viii] a seal which is arranged on the movable portion and is capable of sliding contact with the facing surface of the disc when the fixed and movable portions are closed against one another,
  - [ix] wherein a pressure differential is provided between the opposed surfaces in the region of a circumferential segment of the ring of holes,
  - [x] wherein the seed distribution element further comprises a thrust-bearing element of the sowing disc,
  - [xi] which thrust-bearing element is supported rotatably in the movable portion in order to withstand at least some of the axial load produced by the disc on the seal.

Ex. 1001, 4:13–40 (Claim 1). Claim 10 is drawn to a kit for retrofitting seed distribution elements of the type according to claim 1. *Id.* at 5:4–6:6.

*E. Asserted Grounds of Unpatentability*

Petitioner contends that the challenged claims are unpatentable based on the following specific grounds (Pet. 12):

| No. | Claims Challenged | 35 U.S.C. § | Reference(s)/Basis                                                     |
|-----|-------------------|-------------|------------------------------------------------------------------------|
| 1   | 1–3, 7–12, 16     | § 102(b)    | VenHuizen <sup>2</sup>                                                 |
| 2   | 1–5, 10–14        | § 103       | Fiorido <sup>3</sup>                                                   |
| 3   | 1–5, 7–14, 16     | § 103(a)    | Fiorido, VenHuizen, Applicant Admitted Prior Art                       |
| 4   | 1–3, 7–12, 16     | § 103(a)    | Amazone, <sup>4</sup> Fiorido, VenHuizen, Applicant Admitted Prior Art |

Petitioner also relies on the Declaration of Dr. Mark Fleming (Ex. 1003) to support its proposed grounds.

## 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

---

<sup>2</sup> U.S. 7,228,807 (June 12, 2007) (Ex. 1006).

<sup>3</sup> E.P. 0536543 (Apr. 14, 1993) (Ex. 1007).

<sup>4</sup> Amazone, Operator’s Manual (Oct. 2005) (Ex. 1011).

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).

“Anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim.” *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458 (Fed. Cir. 1984).

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 contends that, for the ’121 patent:

[A] POSA as of November 12, 2010, would have had at least a bachelor’s degree in mechanical or agricultural engineering and 2–4 years experience in the design or manufacture of agriculture equipment. A POSA would have been familiar with the design and operation of known seed distribution meters and with the use of bearings and other plate-like technologies to receive and distribute axial loads by providing bearing surfaces for the transfer of forces.

Pet. 21 (citations omitted). Patent Owner “defers its position on this issue until such time as the Board decides to institute a trial.” Prelim. Resp. 28–29.

At this stage of the proceeding, we adopt Petitioner’s unopposed definition for purposes of this Decision. We also presume that the cited prior art references reflect the level of ordinary skill at the time of the invention. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001) (explaining the level of ordinary skill in the art may be evidenced by the cited references themselves).

### *C. Claim Construction*

We construe claim terms “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 in accordance with the ordinary and customary meaning of such claim as understood by one of ordinary skill in the art and the prosecution history pertaining to the patent.” 37 C.F.R. § 42.100(b). Under this standard, claim terms are generally given their plain and ordinary meaning as would have been understood by a person of ordinary skill in the art at the time of the invention and in the context of the entire patent disclosure. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312–13 (Fed. Cir. 2005) (en banc). Any special definitions for claim terms must be set forth in the Specification with reasonable clarity, deliberateness, and precision. *See In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994).

Petitioner proposes constructions for the terms (i) “thrust bearing element,” (ii) “supported rotatably in the movable portion,” and (iii) “transmission drive shaft.” Pet. 22. Patent Owner responds that “the Board should decline to adopt Petitioner’s proposed claim constructions,”

but “defers its own position on claim construction until such time as the Board decides to institute a trial.” Prelim. Resp. 28. Patent Owner further contends that under the “ordinary and customary meaning” of the claim terms, they are patentable over Petitioner’s asserted prior art. *Id.*

The following claim constructions are preliminary and based on the current record. The parties may further address these issues during trial.

1. *“thrust-bearing element” (claims 1–4, 10–14, 16)*

Petitioner contends that “thrust-bearing element” as used in the ’121 patent means “an element that provides support against an axial force.” Pet. 22–25. Petitioner contends that while “thrust bearing” is “well-known in the art as a ‘bearing which sustains axial loads and prevents axial movement of a loaded shaft,’” the patentee did not intend “thrust-bearing element” to refer to this structure because “thrust-bearing” is hyphenated. *Id.* (citing Ex. 1017, 3). According to Petitioner, “[b]y using a hyphen to connect the words ‘thrust’ and ‘bearing,’ the patentee uses them adjectivally to describe the generic word ‘element in the combined limitation.” Petitioner further contends that the Specification supports this interpretation because it describes an embodiment that does not resemble a traditional thrust bearing, but “more generally refers to an element that provides support against an axial force.” *Id.* at 22–24.

At this preliminary stage of the proceeding, Patent Owner does not dispute that the term “thrust bearing” has a well-known meaning in the art to refer to a particular structure, and that the disclosed embodiment of a “thrust-bearing element” does not resemble that structure. Further, we agree with Petitioner that the hyphenated “thrust-bearing” is a phrasal adjective that modifies the term “element.” Thus, literally, a “thrust-bearing element”

is an “element” that bears thrust. In this case, as recited in claim 1, the thrust that the element bears is “at least some of the axial load produced by the disc on the seal.” Accordingly, on this preliminary record, we agree with Petitioner’s construction of “thrust-bearing element” as an element that provides support against an axial force. Pet. 22.

2. “*supported rotatably in the movable portion*”  
(claims 1, 10)

Claim 1 recites that the thrust-bearing element be “supported rotatably in the movable portion” of the housing of the seed distribution element. Ex. 1001, claim 1. Petitioner contends that the thrust-bearing element “supported rotatably in the movable portion” means “located in the movable portion, however the element may be rotatably supported.” Pet. 25–26. Petitioner further contends that “[w]hile the sole embodiment of the ’121 patent discloses the thrust-bearing element being mounting *on* the movable portion, . . . the broader word ‘in’ is recited in the claims.” *Id.* at 25. Thus, according to Petitioner “the claims require only that the thrust-bearing element be *located within* the confines of the movable portion—not necessarily *supported by* or otherwise *affixed to* the movable portion.”

According to the plain language of this term, the thrust-bearing element must be “in” the movable portion of the housing, and “supported rotatably” while it is in the movable portion. Further, unlike claim 1’s recitation of a “seal” that is in sliding contact the facing surface of the disc “when the fixed and movable portions are closed against one another,” claim 1 does not specify whether the fixed and movable portions are open or closed against each other when the thrust-bearing element is “in” the movable portion. Thus, we interpret this term to encompass either situation.

Further, we agree with Petitioner, on this preliminary record, that “supported rotatably *in* the movable portion” is broader than “supported rotatably *on* the movable portion.” Accordingly, on this record, we accord this phrase its plain meaning: supported rotatably in the space defined by the movable portion.

3. “*transmission drive shaft*” (claims 1, 10)

Claim 1 recites that the sowing disc is “rotated by a motor-driven transmission shaft.” Ex. 1001, claim 1. Petitioner asserts that the transmission drive shaft should be construed to be in the fixed portion of the housing because the Specification states that “[t]he presence of the transmission *requires* the shaft 20 to be *mounted on the fixed portion* of the housing,” and “[e]lsewhere, the description states ‘it is *obligatory to mount on the fixed portion* the transmission which drives in rotation the motor-driven shaft that rotates the disc.’” Pet. 27 (quoting Ex. 1001, 1:63–65, 2:64–65) (emphasis and alternation added by Petitioner). Petitioner further asserts that we should limit the scope of “transmission drive shaft” to mean a “drive shaft centered relative to the sowing disc” because Patent Owner, in an EPO opposition proceeding, argued that Amazone’s “peripherally driven shaft in the prior-art instruction manual is not a ‘transmission drive shaft’ as understood in the claims and disclosed in the specification of the ’121 patent.” *Id.* at 28–30.

According to its own terms, “transmission drive shaft” means a shaft that is driven by a motor and is part of, or associated with, a transmission. Thus, for purposes of this decision, we apply the plain meaning of this term, as so understood. We decline, at this stage of the proceeding, to limit the construction of this term in the manner Petitioner proposes.

First, we disagree with Petitioner’s interpretation of the excerpts of the Specification on which Petitioner relies to limit the meaning of “transmission drive shaft” to a shaft located on the fixed portion of the housing. Determining whether a specification describes an embodiment of the invention of the invention itself “turns on how the specification characterizes the claimed invention.” *Alloc, Inc. v. Int’l Trade Comm’n*, 342 F.3d 1361, 1370 (Fed. Cir. 2003). We look “to whether the specification refers to a limitation only as a part of less than all possible embodiments” or whether “the specification read as a whole suggests that the very character of the invention requires the limitation be a part of every embodiment.” *Id.*

Here, neither Specification excerpt on which Petitioner relies expressly describes the “invention.” The teaching that “in the known machines . . . it is obligatory to mount on the fixed portion the transmission which drives in rotation the motor-driven shaft which rotates the disc” appears to be describing prior-art seed distributors and is not intended to describe the invention itself. The second excerpt on which Petitioner relies is part a description of “a preferred exemplary embodiment,” and a “non-limiting example,” of the invention, and also does not appear intended to describe the invention itself. Ex. 1001, 2:20–22.

While it is true that “[e]ven when guidance is not provided in explicit definitional format, the specification may define claim terms by implication such that the meaning may be found in or ascertained by a reading of the patent documents,” *Irdeto Access, Inc. v. Echostar Satellite Corp.*, 383 F.3d 1295, 1300 (Fed. Cir. 2004), that does not appear to be the case here. In stating that “[t]he presence of the transmission requires the shaft 20 to be mounted on the fixed portion 11 of the housing 10,” the patentee appears to

be reflecting their understanding of the “known machines” discussed in the first excerpt, i.e., that it is “obligatory” to mount the transmission “on the fixed portion.” That the preferred embodiment is implemented on a prior-art “known machine” is not surprising given the Specification’s teaching that the invention “lends itself to easy retrofitting.” Ex. 1001, 4:7–8. It is therefore understandable that a description of a preferred embodiment of the invention may include a description of a prior-art device on which the invention is implemented. Doing so, by itself, does not justify considering all aspects of that prior-art device to be required by the claims.

Petitioner’s proposal to limit “transmission drive shaft” to shafts that are located at the center of sowing discs is, on the present record, also unpersuasive. Petitioner offers no textual support for this construction, and we find none in the Specification. We decline Petitioner’s invitation to rely on extrinsic evidence (Patent Owner’s statements to the EPO) to limit claim scope where the intrinsic evidence does not appear to support that limitation. *See Profectus Tech. LLC v. Huawei Techs. Co.*, 823 F.3d 1375, 1380 (Fed. Cir. 2016) (“Although courts are permitted to consider extrinsic evidence (e.g., expert testimony, dictionaries, treatises), such evidence is generally of less significance than the intrinsic record.”) (citing *Phillips*, 415 F.3d at 1317).

*D. Patent Owner’s Request for Discretionary  
Denial Under 35 U.S.C. § 314(a)*

Patent Owner requests that we exercise our discretion under 35 U.S.C. § 314(a) to deny instituting *inter partes* review of the ’121 patent based on the related District Court Action identified above. Prelim. Resp. 10–20. (“[Section] 314(a) invests the Director with discretion on the question

*whether* to institute review.” *SAS Inst., Inc. v Iancu*, 138 S. Ct. 1348, 1356 (2018)) (emphasis in original); *see Harmonic Inc. v. Avid Tech., Inc.*, 815 F.3d 1356, 1367 (Fed. Cir. 2016) (“[T]he PTO is permitted, but never compelled, to institute an IPR proceeding.”). Relevant to this case, the Board may, in the interest of fairness and efficient use of Board resources, deny institution under § 314(a) where there are parallel district-court proceedings involving the same or substantially the same parties and invalidity challenges. *Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 11 at 5–6, 12–13 (PTAB Mar. 20, 2020) (precedential) (“*Fintiv*”). Under, *Fintiv*, we consider several factors to determine whether to deny institution under § 314(a) based on parallel district-court proceedings:

1. whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted;
2. proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision;
3. investment in the parallel proceeding by the court and the parties;
4. overlap between issues raised in the petition and in the parallel proceeding;
5. whether the petitioner and the defendant in the parallel proceeding are the same party; and
6. other circumstances that impact the Board’s exercise of discretion, including the merits.

*Fintiv*, Paper 11 at 5–6. We apply these factors in light of mandatory guidance issued by the USPTO Director in a June 21, 2022 Memorandum

titled “Interim Procedure for Discretionary Denials in AIA Post-Grant Proceedings with Parallel District Court Litigation” (“Memorandum”).<sup>5</sup>

1. *Fintiv Factor 1: Stay in the Parallel Proceeding*

Under the first *Fintiv* factor, we consider “whether the court granted a stay or evidence exists that one may be granted if a proceeding is instituted.” *Fintiv*, Paper 11, 5–6. Patent Owner states that the district court “has not instituted a stay” and that “neither party has filed a motion to stay the litigation.” Prelim. Resp. 12. Patent Owner further contends that “given the advanced progress of the litigation, it is unlikely that the court would grant a stay if this IPR proceeding were instituted.” *Id.* (citing *Plastic Omnium Advanced Innovation and Research v. Donghee Am., Inc.*, 1:16-cv-00187 (D. Del., filed Mar. 9, 2018), Dkt. No. 278; *Fintiv*, Paper 11, 7).

“If a court has denied a defendant’s motion for a stay pending resolution of a PTAB proceeding, and has not indicated to the parties that it will consider a renewed motion or reconsider a motion to stay if a PTAB trial is instituted, this fact has sometimes weighed in favor of exercising authority to deny institution.” *Fintiv*, 7–8. Here, however, the court has not denied a motion for a stay because neither party has yet moved for a stay. Nor are we persuaded that the court would necessarily deny a motion to stay the parallel litigation. We acknowledge that Patent Owner has provided evidence that considerable resources have already been expended in litigating the district-court case, including a *Markman* hearing and the court’s issuance of its claim-construction opinion and order. *See* Ex. 2002,

---

<sup>5</sup> Available at: [https://www.uspto.gov/sites/default/files/documents/interim\\_proc\\_discretionary\\_denials\\_aia\\_parallel\\_district\\_court\\_litigation\\_memo\\_20220621\\_.pdf](https://www.uspto.gov/sites/default/files/documents/interim_proc_discretionary_denials_aia_parallel_district_court_litigation_memo_20220621_.pdf)

8. But as discussed below in connection with *Fintiv* factors 2 and 3, much work remains to be done in this case. *See* Ex. 2002. Thus, in our view, a stay of the district-court proceedings is a possibility. *See Apple Inc. v. Fintiv, Inc.*, IPR2020-00019, Paper 15 at 12 (PTAB May 13, 2020) (precedential) (“*Fintiv IP*”) (“A judge determines whether to grant a stay based on the facts of each specific case as presented in the briefs by the parties,” and “[w]e decline to infer, based on actions taken in different cases with different facts, how the [court] would rule should a stay be requested by the parties in the parallel case.”). As a result, we determine that the first *Fintiv* factor is neutral.

2. *Fintiv Factor 2: Trial Date in the Parallel Proceeding*

Under the second *Fintiv* factor, we consider the “proximity of the court’s trial date to the Board’s projected statutory deadline for a final written decision.” *Fintiv*, Paper 11, 6. The five-day trial in the District Court Action is currently scheduled to begin February 3, 2025, having been rescheduled from November 4, 2024. Ex. 2002, 8; Ex. 2006, 2. Thus, the district-court trial is currently scheduled to conclude less than two months before the projected statutory deadline for a final written decision in this case (March 26, 2025). The Director’s *Fintiv* Memorandum, however, authorizes us to consider the median time-to-trial statistics for the district court in which the parallel litigation resides. Memorandum, 8–9. According to Patent Owner, the median time to trial for the District of Delaware is 36.7 months. Prelim. Resp. 16. Adding this time to the October 24, 2022 complaint-filing date yields a possible trial date in November 2025, or eight months after a final written decision issues.

Patent Owner advises us to instead consider the average time to trial for the judge presiding over the parallel litigation, which is 29 months. Prelim. Resp. 16 (citing Ex. 2007). Doing so would place the trial date sometime in late March, or about the same time as the final written decision issues. Either way, we cannot say with any degree of assurance that the trial would take place before a final written decision issues. Therefore, *Fintiv* factor 2 is neutral or weighs slightly against exercising our discretion to deny institution.

3. *Fintiv Factor 3: Investment by the Court and the Parties in the Parallel Proceeding*

Under the third *Fintiv* factor, we consider the “investment in the parallel proceeding by the court and the parties.” *Fintiv*, Paper 11, 6. Patent Owner contends that the parties “have already invested substantial resources” in the District Court Action, including exchanging “multiple document requests, interrogatories, and responses,” exchanging “core technical documents,” exchanging infringement and invalidity contentions, and completing claim construction. Prelim. Resp. 16–17 (citing Ex. 2002).

Although we agree with Patent Owner that the district court and the parties have already expended considerable time and effort in the parallel litigation, it also appears that considerable work remains to be done. According to the current trial schedule, fact discovery is ongoing, expert discovery has not yet begun, the deadline for dispositive motions is not until September 20, 2024, and the pretrial conference is not until January 24, 2005. Ex. 2006, 1. Thus, we determine that *Fintiv* factor 3 is neutral.

4. *Fintiv Factor 4: Overlap Between Issues Raised in the Petition and Parallel Proceeding*

Under the fourth *Fintiv* factor, we consider the “overlap between issues raised in the petition and in the parallel proceeding.” *Fintiv*, Paper 11, 6. Patent Owner contends that this IPR involves “the same patent, same claims, same invalidity references, and nearly identical invalidity arguments” as the District Court Action. Prelim. Resp. 17–18. According to Patent Owner, “the patentability issues here are nevertheless a subset of the issues in the [District Court] litigation.” Prelim. Resp. 18. Patent Owner also contends that Petitioner has not submitted a *Sotera*-style stipulation in the District Court Action. *Id.*

Although we agree with Patent Owner that there is substantial overlap between issues raised in the Petition and in the parallel litigation, that overlap is not complete: The Petition challenges several claims that do not appear to be at issue in the parallel litigation. *Compare* Pet. 1 (petitioning for review of claims 1–5, 7–14, and 16), *with* Ex. 2005, 1 (defendant’s invalidity contentions for asserted claims 1–3, 8, and 10–12). Thus, the district-court litigation would not determine the patentability of all of the claims challenged in the Petition. Accordingly, this fact weighs against discretionary denial.

5. *Fintiv Factor 5: Whether Petitioner is the Defendant in the Parallel Proceeding*

Under the fifth *Fintiv* factor, we consider “whether the petitioner and the defendant in the parallel proceeding are the same party.” *Fintiv*, Paper 11, 6. Patent Owner contends that “Petitioner and the defendant-

counterclaimant in the [District Court] litigation are the same party.”

Prelim. Resp. 19.

The parties being the same “could weigh either in favor of, or against, exercising discretion to deny institution, depending on which tribunal is likely to address the challenged patent first.” *Carrier Fire & Security Americas Corp. v. Sentrilock, LLC*, IPR2021-00665, Paper 12 at 13–14 (PTAB Sept. 16, 2021). For example, if the Board reaches the merits before the district court, “estoppel will apply against Petitioner should we determine that Petitioner failed to demonstrate unpatentability of the challenged claims.” *Id.* Here, because the district court trial—and hence any ruling on the validity of the claims asserted in the district court—may not occur before the entry of a final written decision, this factor is neutral or, at most, weighs slightly in favor of discretionary denial.

#### 6. *Fintiv Factor 6: Other Considerations*

Under the sixth *Fintiv* factor, we consider “other circumstances that impact the Board’s exercise of discretion, including the merits.” *Fintiv*, Paper 11, 6. “[W]here the PTAB determines that the information presented at the institution stage presents a compelling unpatentability challenge, that determination alone demonstrates that the PTAB should not discretionarily denied institution under *Fintiv*.” Memorandum, 4–5.

On balance, we determine that *Fintiv* factors 1–5 do not favor discretionary denial of institution. As a result, we need not decide whether Petitioner presents a compelling unpatentability challenge. *See CommScope Techs. LLC v. Dali Wireless, Inc.*, IPR2022-01242, Paper 23 at 4–5 (PTAB Feb. 27, 2023) (decision on Director review) (precedential) (“[I]n circumstances where the Board determines that the other *Fintiv* factors 1–5

do not favor discretionary denial, the Board shall decline to discretionarily deny under *Fintiv* without reaching the compelling merits analysis.”).

7. *Conclusion*

Based on our review of the *Fintiv* factors, we decline to exercise our discretion under § 314(a) to deny institution.

*E. Patent Owner’s Challenge to  
Institution Under 35 U.S.C. § 325(d)*

Before addressing the merits of the Petition, we consider Patent Owner’s contention that because VenHuizen, Fiorido, and AAPA were considered during prosecution of the ’121 patent, we should exercise our discretion under 35 U.S.C. § 325(d) to deny institution. Prelim. Resp. 20–25.

Section 325(d) requires us to “take into account whether, and reject the petition . . . because, the same or substantially the same prior art or arguments previously were presented to the Office.” 35 U.S.C. § 325(d); *see Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, slip op. at 17–18 (Paper 8) (PTAB Dec. 15, 2017) (precedential as to § III.C.5, first paragraph) (setting forth six factors the Board may weigh in evaluating whether to exercise discretion under § 325(d)). The Board applies the following two-part framework in evaluating a request for discretionary denial under this section: (1) whether the same or substantially the same art or arguments were previously presented to the Office; and (2) if either condition of the first part of the framework is satisfied, whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of the challenged claims. *Advanced Bionics, LLC v. MED-EL*

*Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6 at 8, 10 (Feb. 3, 2020 (precedential)).

1. *Whether the same or substantially the same art previously was presented to the Office or whether the same or substantially the same arguments previously were presented to the Office*

“Previously presented art includes art made of record by the Examiner, and art provided to the Office by an applicant, such as on an Information Disclosure Statement (IDS), in the prosecution history of the challenged patent.” *Advanced Bionics*, 7–8. Both VenHuizen and Fiorido were before the Office during prosecution of the ’121 patent. *See* Ex. 1001, code (56) (citing “Ven Huizen” and “EP 0536543 A1,” i.e., Fiorido); Ex. 1002, 52 (Information Disclosure Statement listing VenHuizen and Fiorido). Also, arguably, AAPA was before the Examiner because it is part of the Specification. Although Amazone does not appear to have been before the Examiner, Petitioner relies on only VenHuizen and Fiorido to teach the claimed thrust-bearing element, which is the limitation on which the parties’ dispute is primarily focused, as discussed below. Thus, we determine that the art in Petitioner’s asserted grounds of unpatentability is substantially the same as the art previously presented to the Office.

2. *Whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims*

Because the first part of the *Advanced Bionics* framework is satisfied, we consider “whether the petitioner has demonstrated that the Office erred in a manner material to the patentability of challenged claims.” *Advanced Bionics*, Paper 6 at 8. “An example of a material error may include

misapprehending or overlooking specific teachings of the relevant prior art where those teachings impact patentability of the challenged claims.” *Id.* at 8 n.9. Petitioner contends that “neither the USPTO nor [Patent Owner] discussed either [VenHuizen or Fiorido] during prosecution,” and that “the examiner failed to appreciate both VenHuizen’s and Fiorido’s teachings—as evidenced at least in part by the EPO’s finding of anticipation of substantively identical claims by VenHuizen.” Pet. 15 (citing Ex. 1005, 226–44).

Patent Owner responds that the Examiner “in no way erred” in allowing the claims over VenHuizen and Fiorido, in particular because the Examiner “reached the same reasonable patentability conclusion as the EPO,” which allowed substantially the same claims over these references. Prelim. Resp. 20–23.

Petitioner demonstrates that the Examiner overlooked specific teachings of VenHuizen with respect to the thrust-bearing element limitation.<sup>6</sup> As discussed below, Petitioner presents evidence that VenHuizen teaches “a thrust-bearing element . . . supported rotatably in the movable portion” of the housing. Although, as Patent Owner correctly notes, the EPO had allowed substantially the same claims over VenHuizen and Fiorido before the Examiner did so, the EPO has since reconsidered this determination and canceled the claims over VenHuizen. Ex. 1005, 513–14.<sup>7</sup>

---

<sup>6</sup> It does not appear that the Examiner performed a prior-art search or identified any prior art other than what was submitted in the IDS. *See generally* Ex. 1002. The claims were allowed without any rejections. *Id.*

<sup>7</sup> The EPO went on to allow claims that were amended to contain limitations not present in the independent claims of the ’121 patent. Ex. 1005, 237–242.

### 3. Conclusion

For the reasons discussed above, we decline to exercise our discretion under § 325(d) to deny the Petition.

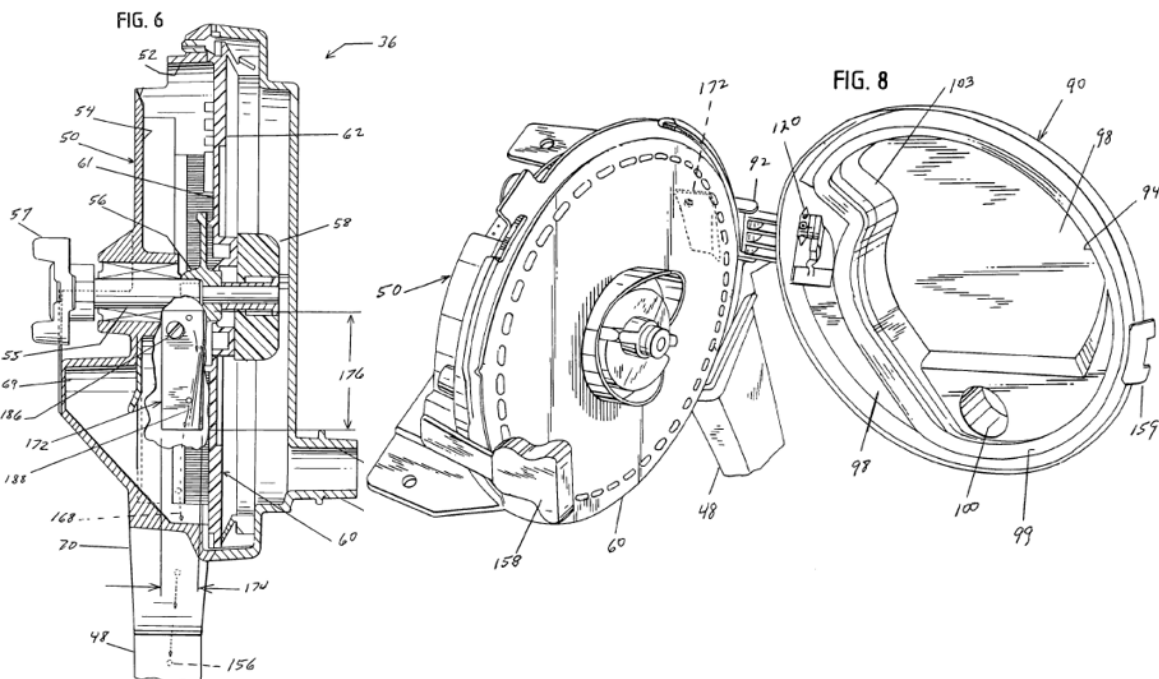
*F. Ground 1: Anticipation of Claims 1–3, 7–12, and 16 by VenHuizen*

Petitioner contends that claims 1–3, 7–12, and 16 are anticipated by VenHuizen. Pet. 36–56. Patent Owner opposes. Prelim. Resp. 32–38.

1. *VenHuizen (Ex. 1006)*

VenHuizen is titled “Device for Improving the Spacing between Seeds Planted by a John Deer Vacuum Planter.” Ex. 1006, Code (54).<sup>8</sup>

Figures 6 and 8 of VenHuizen are shown below.



<sup>8</sup> The '121 patent identifies VenHuizen (U.S. Pat. No. 7,228,807) as describing an example prior-art seed distribution element. Ex. 1001, 1:24–37. VenHuizen, in turn, describes a John Deere 7200 Max Emerge planter. Ex. 1006, 5:13–58, Figs. 1–3

Figures 6 and 7, above, depict metering unit 36 comprising first housing member 50 attached by pivot pin 92 to second housing member 90 (in Figure 6 the two housing members are closed together and in Figure 7 they are open). Ex. 1006, 5:59–64, 7:19–21. Seed disk 60 is “removably retain[ed]” on hub 56 and drive shaft 55 by handle 58. *Id.* at 7:19–36. Drive shaft 55 and seed disk 60 are driven by a “driving member” via flanges 57 at the distal end of drive shaft 55. *Id.* at 6:1–4. When housing members 50, 90 are latched together, seed disk 60 divides the interior of the metering unit 36 into a first chamber within first housing member 50 and a second chamber within second housing member 90. *Id.* at 7:48–54. VenHuizen explains that a vacuum is drawn in the second chamber, and as the seed disk 60 rotates through a mass of seeds, “one seed is drawn by the vacuum against each of the transverse holes” of the seed disk. *Id.* at 7:59–62, 8:5–7.

2. *Claim 1*

Petitioner contends that VenHuizen discloses the seed distribution element recited in claim 1. Pet. 36–48. Petitioner particularly contends that VenHuizen’s: (1) first housing member 50 corresponds to the claimed fixed portion defining a seed collection chamber (limitations [iii] and [iv]); (2) second housing member 90 corresponds to the claimed movable portion defining a pneumatic suction chamber (limitations [iii] and [v]); (3) seed disk 60 corresponds to the claimed sowing disc having selector holes, interposed between the fixed and movable portions, and having opposing surfaces delimiting the chambers (limitations [ii], [vi], and [vii]); (4) rubberized sealing member 99 corresponds to the claimed seal arranged on the movable portion and capable of sliding contact with the facing surface of the disc when the fixed and movable portions are closed against

one another (limitation [viii]); and (5) handle 58 corresponds to the claimed thrust-bearing element supported rotatably in the movable portion in order to withstand at least some of the axial load produced by the disc on the seal (limitations [x] and [xi]). *Id.* at 38–48. Petitioner supports its contentions with citations to VenHuizen and to the testimony of Dr. Fleming. *Id.*

At this stage of the proceeding, Patent Owner does not dispute that VenHuizen discloses limitations [i] through [ix]. Patent Owner does contend, however, that VenHuizen does not disclose limitations [x] (“[T]he seed distribution element further comprises a thrust-bearing element of the sowing disc”) and [xi] (“[W]hich thrust-bearing element is supported rotatably in the movable portion in order to withstand at least some of the axial load produced by the disc on the seal”). Prelim. Resp. 32–38.

We have reviewed the record and the party’s contentions, and at this stage of the proceeding are persuaded that Petitioner is reasonably likely to show that VenHuizen teaches limitations [i] through [ix] of claim 1. We therefore turn to the parties’ contentions regarding limitations [x] and [xi].

Petitioner contends that VenHuizen’s handle 58 corresponds to the claimed thrust-bearing element because it “constrains the movement of the seed disk when a vacuum is applied.” Pet. 45–46 (citing Ex. 1006, 5:62–67, 6:20–28, Ex. 1003 ¶¶ 85, 86). Petitioner further submits that the hub handle is supported rotatably in the movable portion because “when the movable portion of the housing is closed onto the fixed portion, the hub-mounted handle (i.e., thrust-bearing element) is positioned within the movable portion of the housing,” and because it is “locked to the [retaining] hub,” it is “rotatably mounted and retains the disk against the vacuum.” *Id.* at 46 (citing Ex. 1006, 6:62–64, 6:1–4, Fig. 6; Ex. 1003 ¶ 87).

Patent Owner responds that “VenHuizen has nothing to do with the problems of seal abrasion and seal wear and fails to disclose anything about a thrust-bearing element designed to solve those problems.” Prelim. Resp. 34; *see id.* at 37 (“VenHuizen never mentions the words ‘thrust,’ ‘load,’ or ‘force.’”). VenHuizen’s failure to mention the specific terms used in the claim does not preclude a finding that VenHuizen anticipates the claim. As our reviewing court has held, an anticipatory reference “need not satisfy an *ipsissimis verbis* test.” *In re Gleave*, 560 F.3d 1331, 1334 (Fed. Cir. 2009).

Patent Owner next argues that “although the handle 58 is located within the physical confines of the movable second housing member 90, the handle 58 is rotatably supported by the retaining hub 56 in the fixed first housing member 50.” Prelim. Resp. 36. That handle 58 is rotatably supported by retaining hub 56 does not mean that handle 58 cannot meet the thrust-bearing-element limitation, because claim 1 does not require the thrust-bearing element to be supported rotatably *by* the movable portion of the housing. Instead, claim 1 recites that the thrust-bearing element is supported rotatably *in* the movable portion of the housing. As discussed *supra*, we have interpreted this requirement to require the thrust-bearing element to be located in the movable portion of the housing, and supported rotatably while it is in the movable portion. When housing members 50 and 90 are latched together, hub handle 58 is located within the movable portion and, as Patent Owner recognizes, supported rotatably by retaining hub 56 while in the movable portion. Further, because hub handle 58 “constrains the movement of the seed disk when a vacuum is applied” (Pet. 45–46), which movement would otherwise apply force to sealing member 99, handle 58 “withstands at least some of the axial load produced by the disc on the

seal.” Therefore, on the current record, we determine that Petitioner is reasonably likely to prevail in showing that VenHuizen teaches limitations [x] and [xi].

For the above reasons, we determine that Petitioner satisfies the threshold requirement for institution of *inter partes* review on the basis of Ground 1.

3. *Claims 2, 3, 7–12, and 16*

“When instituting post-grant review, the Board will authorize the review to proceed on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.208(a). We must “either (1) institute as to all claims challenged in the petition and on all grounds in the petition, or (2) institute on no claims and deny institution.” Patent Trial and Appeal Board Consolidated Trial Practice Guide (Nov. 2019),<sup>9</sup> 5–6, 64; *see also PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1359–60 (Fed. Cir. 2018) (stating a decision to institute is “a simple yes-or-no institution choice respecting a petition, embracing all challenges included in the petition”). Thus, because we have decided to grant institution on Ground 1 with respect to claim 1, we must do the same for claims 2, 3, 7–12, and 16. Moreover, Patent Owner did not raise any arguments specifically directed to these claims.

G. *Ground 2: Anticipation of claims 1–5 and 10–14 by Fiorido*

Petitioner contends that Fiorido anticipates claims 1–5 and 10–14 of the ’121 patent. Pet. 56–71. Patent Owner opposes. Prelim. Resp. 38–46.

---

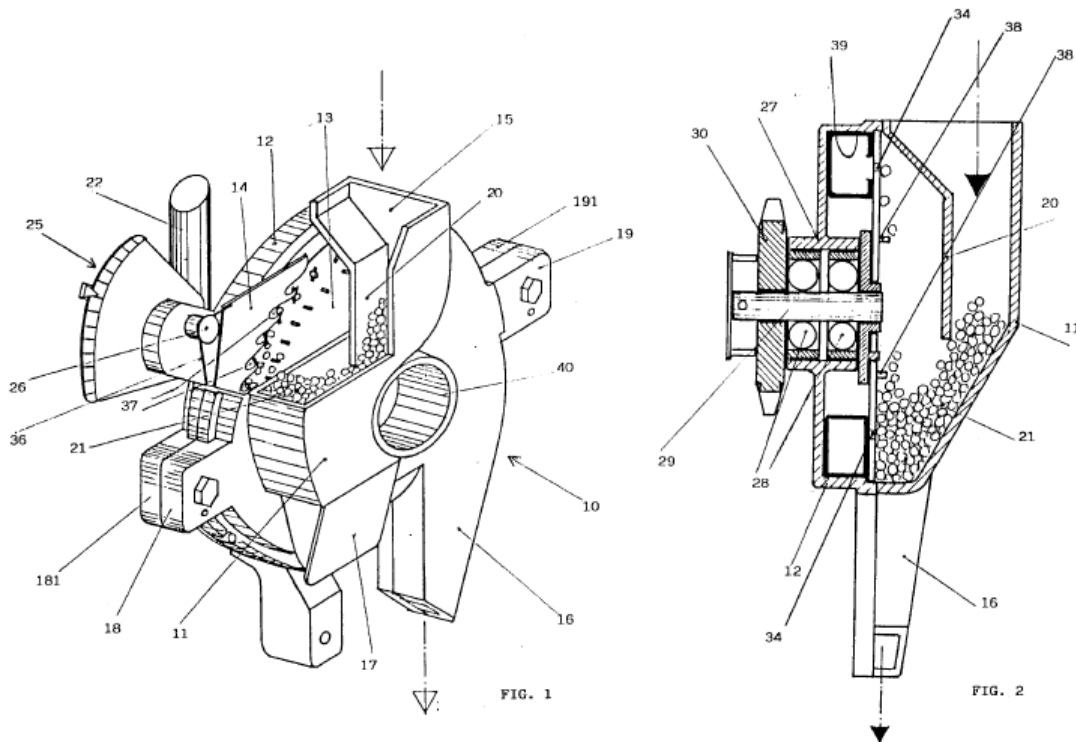
<sup>9</sup> Available at <https://www.uspto.gov/sites/default/files/documents/tpgnov.pdf?MURL=TrialPracticeGuideConsolidated>

As noted above, because we have decided to institute *inter partes* review based on Ground 1, we must do the same for the remaining grounds. Nonetheless, we discuss Ground 2 to address Patent Owner’s challenges thereto.

1. *Fiorido*

Fiorido describes a pneumatic single-seed planter using a seed disk with perforations that “have an elongated shape and a reduced cross-section,” along with an adjustable “selector element” that cooperates with the perforations, to ensure that only a single seed is retained in each perforation regardless of the shape and size of the seed, without having to change seed disks for different seed types. Ex. 1007, Abstr., 1:23–24, 5:56–6:29, 7:35–45.

Figures 1–3 of Fiorido are reproduced below:



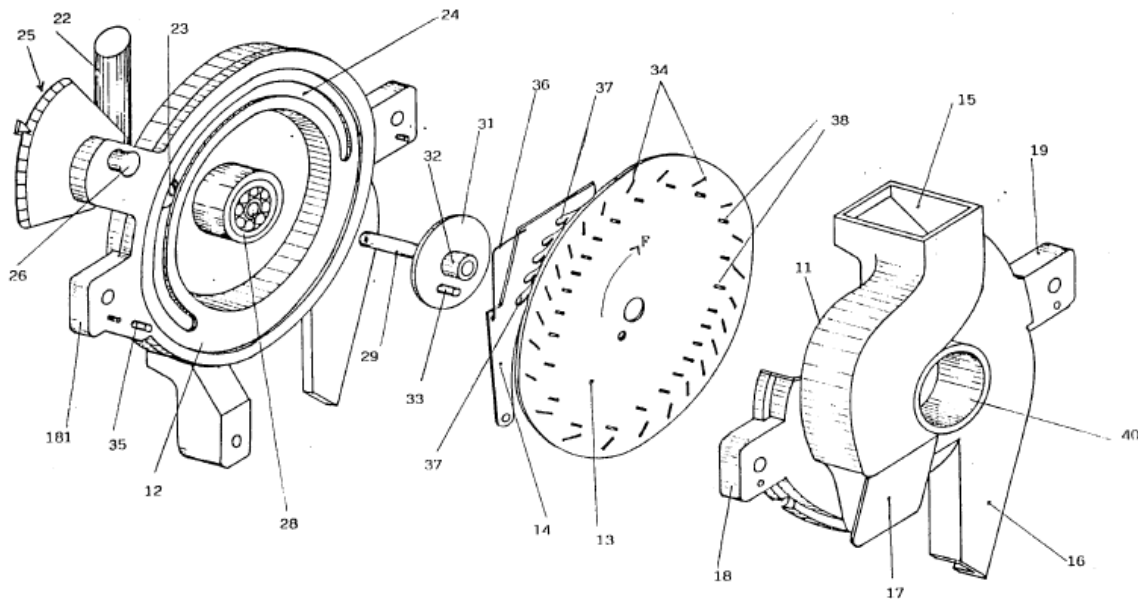


FIG. 3

As shown in Figures 1–3, Fiorido discloses single-seed planter 10 “essentially formed by a seed container 11 and a box-like casing 12, with a perforated disk 13 associated with selector element 14, arranged therebetween.” Ex. 1007, 5:10–13. Seed container 11 “is further provided with projections 18, 19 that are adapted to cooperate with respective projections 181 and 191 of the casing 12 to effect the connection and the closure (by means of holes, pins, and bolts) of the container 11 with casing 12.” *Id.* at 5:22–27.

Casing 12 is connected to a vacuum source to draw seeds from seed container 11 onto the perforations of disk 13 as the disk rotates through the container. *Id.* at 5:33–39, 7:29–32. Casing 12 “is also provided with a perforated hub 27 . . . through which passes, as supported by bearings 28, a shaft 29 that may for instance be driven though a cog-wheel 30 to rotatably drive the disk 13, to which it is connected by means of a driving disk 31, a centering dowel 32 and a driving pin 33.” *Id.* at 49–55. Seed container 11 may also be provided with “a central opening 40 . . . to possibly introduce

the support and driving elements for the disk 13 from the opposite side of the device, as opposed to the arrangement shown in [Figures 1 and 2].” *Id.* at 8:1–6.

## 2. Discussion

Petitioner contends that Fiorido discloses all of the limitations of the challenged claims. Pet. 56–71. For example, Petitioner asserts that disk 13 corresponds to the claimed sowing disc having at least one ring of selector holes extending between opposed surfaces of the disk; shaft 29 corresponds to the claimed motor-driven transmission drive shaft; seed container 11 corresponds to the claimed fixed portion that defines a seed collection chamber; casing 12 corresponds to the portion that is movable relative to the fixed portion and that defines a pneumatic suction chamber; disk 13 is interposed between seed container 11 and casing 12; a hollow sealing ring corresponds to the claimed seal arranged on the movable portion; and the combination of shaft 29, driving disk 31, centering dowel 32, and driving pin 33 corresponds to the claimed thrust-bearing element. *Id.* According to Petitioner, “[t]he driving disk mounts against the perforated disk constraining the movement of the disk in the axial direction when a vacuum is applied by [sic] in the pneumatic suction chamber.” *Id.* at 64 (citing Ex. 1003 ¶ 99).

Petitioner further asserts that this combination of elements is supported rotatably in the movable portion in order to withstand at least some of the axial load produced by the disc on the seal, because “Fiorido’s shaft, bearings, and driving disk are rotatably supported by bearings in the casing (movable portion of the housing).” *Id.* at 65. Petitioner submits that “[t]he driving disk mounts against the perforated disk constraining the

movement of the disk in the axial direction and withstanding some of the load applied to the disk by the seal when a vacuum is applied.” *Id.*

Patent Owner responds, *inter alia*, that “Fiorido does not disclose a housing having a movable portion.” Prelim. Resp. 38. Patent Owner asserts that, unlike the ’121 patent and VenHuizen, each of which teaches “a hinge and a removable hinge pin connecting the housing components so that one component moves (i.e., pivots) relative to the other component,” Fiorido “bolts the housing components together into a fixed position.” *Id.* at 42. In fact, asserts Patent Owner, “Fiorido avoids the need to access and replace disks, which is the purpose of splitting the housing into movable and fixed portions, thereby teaching away from a housing having both fixed and movable portions.” *Id.* at 41.

Patent Owner further contends that “[b]ecause neither of the housing components in Fiorido is movable relative to the other, Petitioner is able to ‘cherry pick’ and inconsistently (and improperly) define both of the housing components as ‘movable’ in different portions of its analysis.” Prelim. Resp. 42. In this regard, Patent Owner submits that the Petitioner alternatively describes casing 12 as the fixed portion because it contains the drive shaft, and as the movable portion because it rotatably supports the thrust-bearing element (which, in Petitioner’s view, includes the drive shaft). *Id.* at 42–43 (citing Pet. 56–57, 65).

We do not agree with Patent Owner that neither seed container 11 nor casing 12 can each be considered a movable portion of the housing because they are bolted together rather than connected by a hinge pin. Claim 1 does not recite any particular structure by which the fixed and movable portions are movably attached to each other; bolts can be removed to separate the

components, albeit perhaps with greater difficulty than the hinged arrangement disclosed in the '120 patent and VenHuizen.

It is not clear on the present record, however, whether Petitioner has established a reasoned basis for determining which of container 11 and casing 12 corresponds to a fixed portion as opposed to a movable portion. The Specification describes “fixed portion” as that portion that is fixed to the framework of the sowing elements (Ex. 1001, 1:57–59), but Petitioner has not shown which of container 11 or casing 12 is fixed to the framework of seed planter 10, and if the other is *not* fixed to the framework. If one of ordinary skill in the art would have inferred that casing 12 is the fixed portion because shaft 29 and driving disk 31 are located there, then Fiorido would not disclose the limitations in claim 1 requiring the pneumatic suction chamber to be defined in, the seal to be arranged on, and the thrust-bearing element to be supported rotatably in the movable portion.

Further, as Patent Owner notes, the Petition alternatively describes casing 12 as the fixed portion and the movable portion, depending on which limitation is discussed. Pet. 56–57, 65. For example, the Petition asserts that shaft 29, which Petitioner contends corresponds to the claimed motor-driven transmission shaft and which is located in casing 12 (Fiorido, 5:49–51, Figs. 2, 3), is “on the fixed portion of the housing” (Pet. 56–57), in which case, as noted above, several limitations in claim 1 would not be disclosed. But the Petitioner later identifies casing 12 as the movable portion of the housing. *Id.* at 58–60.

Petitioner asserts that “[t]o the extent it is argued that the seed collection chamber is not defined in the fixed portion and the suction chamber is not defined in the movable portion, Fiorido teaches a POSA that

the fixed and movable sides may be swapped because the motor-driven transmission drive shaft can be introduced on either side.” Pet. 59–60. Petitioner is referring to Fiorido’s teaching that “seed container 11 may be provided with a central opening 40 (Figures 1 and 2) to possibly introduce the support and driving elements for the disk 13 from the opposite side of the device, as opposed to the arrangement shown in the accompanying drawing.” Ex. 1007, 8:1–6. On the current record, we do not read this excerpt as teaching that “the fixed and movable sides may be swapped,” but only that the support and driving elements for disk 13 may be “swapped,” i.e., moved from casing 12 to container 11. To the extent that moving the driving element to container 11 makes container 11 the fixed portion, then the structure that Petitioner asserts corresponds to the claimed thrust-bearing element would not be in the movable portion, as claim 1 requires.

Petitioner further asserts that “as admitted in the ’121 patent, a POSA knows the seal’s thrust-bearing must be on the suction side to alleviate axial load on the seal.” Pet. 60 (citing Ex. 1001, 1:53–55, 63–65; Ex. 1003 ¶ 94). Thus, according to Petitioner, “Fiorido discloses either the seed or suction chamber may be on the fixed side and the function of the thrust-bearing dictates it [i.e., the thrust-bearing element] be on the suction side.” *Id.* (citing Ex. 1003 ¶ 94). We understand Petitioner to be relying on the ’121 patent’s teaching that “seed drills have been developed which are equipped with a thrust-bearing element which relieves the heavy load on the seal. In all cases, . . . the thrust-bearing element, which must be rotated with the disc, is mounted on the fixed portion of the housing.” Ex. 1001, 1:53–57, 63–65.

As an initial matter, based on the current record and as noted above, Fiorido does not expressly teach a fixed portion or movable portion, so it is

not clear to us that “Fiorido discloses either the seed or suction chamber may be on the fixed side.” Further, we do not read these excerpts as admitting that *all* seed planters were equipped with a thrust-bearing element at the time of the invention, only that some were; “in all cases” therefore refers to all seed planters equipped with thrust-bearing elements, not necessarily all seed planters (including Fiorido’s). Further, to the extent that the excerpt constitutes an admission that a thrust-bearing element, when equipped on a seed planter, will be on the suction side (which we assume for the sake of argument and do not find on the current record), such admission is not particularly relevant to whether Fiorido teaches a thrust-bearing element, or whether container 11 or casing 12 would be a fixed or movable portion.

Based on the current record, the issue of whether Fiorido anticipates the challenged claims is best left for trial after full development of the record.

*H. Ground 3: Obviousness of Claims 1–5, 7–14, and 16 over Fiorido, VenHuizen, and AAPA*

Petitioner contends that claims 1–5, 7–14, and 16 would have been obvious over Fiorido, VenHuizen, and AAPA. Pet. 71–74. Patent Owner opposes. Prelim. Resp. 46–48. As noted above, because we have decided to institute *inter partes* review based on Ground 1, we must do the same for the remaining grounds. Nonetheless, we discuss Ground 3 to address Patent Owner’s challenges thereto.

Petitioner asserts that independent claims 1 and 10 would have been “obvious over Fiorido by itself.” Pet. 72, 73. For claim 1 Petitioner argues that:

To the extent that [Patent Owner] argues that Fiorido does not disclose the combination of “a pneumatic suction chamber being defined in the movable portion” and “[a] thrust-bearing element is supported rotatably in the movable portion in order to withstand at least some of the axial load produced by the disc on the seal” as arranged in the claim, Fiorido’s disclosure teaches to modify Fiorido to arrive at this arrangement. As described above, Fiorido discloses that the drive element may be introduced into either side of the seed distributor housing. Further, a POSA would know that the vacuum chamber must be on the opposite side from the seed chamber. Therefore, if Fiorido’s drive element is moved from one side to the other, a POSA would know Fiorido’s thrust-bearing element must still be provided on the vacuum side to relieve axial load on the seal. A POSA would have a reasonable expectation of success in using the structures of Fiorido for the purpose disclosed by Fiorido.

*Id.* at 72; *see id.* at 73 (“Claim 10 is obvious over Fiorido by itself for the reasons discussed above with respect to claim 1.”).

It is not entirely clear to us what Petitioner means by “Fiorido’s thrust-bearing element.” For Ground 2 Petitioner alleges that Fiorido’s shaft 29 and driving disk 31 correspond to the claimed thrust-bearing element. These components constitute Fiorido’s driving elements for disk 13, which, if introduced into container 11, would mean that the thrust-bearing element would also be in container 11, which would further mean that either limitation [iv]’s requirement that the seed collection chamber be defined in the fixed portion, or limitation’s [xi]’s requirement that the thrust-bearing element be supported rotatably in the movable portion, would not be satisfied.<sup>10</sup> If Petitioner intends for “Fiorido’s thrust-bearing element” to

---

<sup>10</sup> Again, as discussed above in connection with Ground 2, if container 11 is the movable portion and casing 12 is the fixed portion, the limitations

refer to different structure for Ground 3, we question whether Petitioner has clearly identified that structure. Either way, as noted above, whether Fiorido teaches the claimed thrust-bearing element is an issue best left for trial.

*I. Ground 4: Obviousness of Claims 1–3, 7–12, and 16 over Amazone, Fiorido, VenHuizen, and AAPA*

Petitioner contends that claims 1–3, 7–12 and 16 would have been obvious over Amazone, Fiorido, VenHuizen, and AAPA. Pet. 75–90. Patent Owner opposes. Prelim. Resp. 49–57.

*1. Amazone*

Amazone is an English-language version of an operator’s manual for various “ED” models of “Precision Airplanters” manufactured by Amazonen-Werke H. Dreyer GmbH & Co. Ex. 1011, 1, 3. “The ED precision planter . . . is designed for the metering and application of usual commercial kinds of seed and fertilizer.” *Id.* at 41. Figures 39 and 40 of Amazone illustrate “seed metering” components of an airplanter, and are reproduced below:

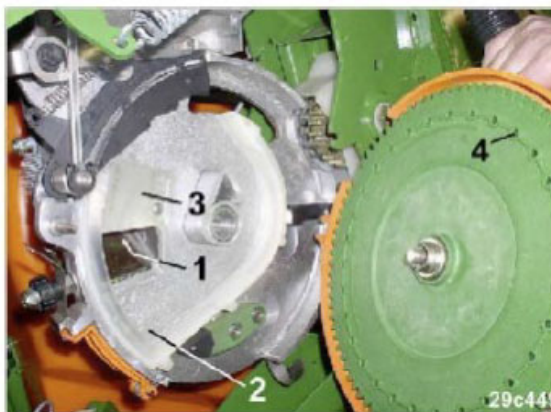


**Fig. 39**



**Fig. 40**

---

requiring the seal and pneumatic suction chamber to be in the movable portion would not be satisfied.

As depicted in Figures 39 and 40 of Amazone, seeds from a seed hopper fall through an opening (Fig. 39, item 1) into a “seed store area” (Fig. 39, item 2). Ex. 1011, 53. A vacuum is provided from slits (Fig. 40, item 1) of a “suction kidney,” which draws seeds onto the holes (Fig. 39, item 4) of a “singling disc.” *Id.* As the disc rotates the seeds are carried to a point (Fig. 40, item 2) where the vacuum is no longer applied and the seed drops into a seed furrow. *Id.*

## 2. Discussion

Although Petitioner contends that Amazone teaches most of the limitations of claim 1, Petitioner relies on Fiorido to teach the claimed thrust-bearing element. Pet. 83. (VenHuizen and AAPA are not relied on for any of the limitations of claim 1). Petitioner asserts that “it would be obvious to modify Amazone with the driving disk of Fiorido.” *Id.* As discussed above, whether Fiorido teaches the claimed thrust-bearing element is an issue best left for trial.

## III. CONCLUSION

For the foregoing reasons, we determine that Petitioner has shown that there is a reasonable likelihood that it would prevail with regard to at least one of the claims challenged in the Petition. Accordingly, we institute *inter partes* review of claims 1–5, 7–14, and 16 of the ’121 patent on all asserted grounds.

#### IV. ORDER

For the reasons given, it is

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–5, 7–14, and 16 of the '121 patent on all asserted grounds is *instituted*; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), notice is hereby given of the institution of trial, which will commence on the entry date of this Decision.

IPR2024-00008  
Patent 8,770,121 B2

PETITIONER:

Scott R. Brown  
Matthew B. Walters  
HOVEY WILLIAMS LLP  
sbrown@hoveywilliams.com  
mwalters@hoveywilliams.com

PATENT OWNER:

Kevin R. Casey  
STRADLEY RONON STEVENS & YOUNG LLP  
kcasey@stradley.com