

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CEVA SANTÉ ANIMALE S.A.,
EGG-CHICK AUTOMATED TECHNOLOGIES S.A.S, and
CEVA ANIMAL HEALTH, LLC.,
Petitioners,

v.

TARGAN, INC.,
Patent Owner.

IPR2024-00595
Patent 10,806,124 B2

Before KARL D. EASTHOM, MICHELLE N. WORMMEESTER, and
BRIAN P. MURPHY, *Administrative Patent Judges*.

MURPHY, *Administrative Patent Judge*.

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

I. INTRODUCTION

Ceva Santé Animale S.A., Egg-Chick Automated Technologies S.A.S, and Ceva Animal Health, LLC (collectively, “Petitioner”) filed a Petition pursuant to 35 U.S.C. § 311 requesting institution of *inter partes* review of claims 1–18 of U.S. Patent No. 10,806,124 B2 (Ex. 1001; “the ’124 patent”). Paper 1 (“Pet.”). Targan, Inc. (“Patent Owner”) timely filed a Patent Owner Preliminary Response. Paper 8 (“Prelim. Resp.”).

We have jurisdiction 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.” Under § 314, the Board may not institute review on fewer than all claims challenged in the petition. *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018). If the Board institutes a review, it will institute “on all of the challenged claims and on all grounds of unpatentability asserted for each claim.” 37 C.F.R. § 42.108(a). Upon consideration of the Petition, the Preliminary Response, and the evidence of record, for the reasons set forth below, we conclude Petitioner has demonstrated a reasonable likelihood of prevailing with respect to at least one challenged claim in the ’124 patent. Accordingly, we institute an *inter partes* review of claims 1–18 of the ’124 patent on all grounds set forth in the Petition. *See* 37 C.F.R. § 42.108(a).

A. Real Parties in Interest and Related Matters

Petitioner identifies Ceva Santé Animale S.A. as the real party in interest. Pet. 1. Petitioner also states that Ceva Santé Animale S.A. “is the sole owner of Egg-Chick Automated Technologies S.A.S. and Ceva Animal Health, LLC.” *Id.* Patent Owner, Targan, Inc., identifies itself as the real party in interest. Paper 6, 2.

Patent Owner and Petitioner indicate there are no related matters. *Id.*; Pet. 1.

B. The '124 Patent

The '124 patent, titled “System and Method of Determining the Health and Gender of a Chick,” is directed to a system for determining the health, gender, or other characteristics of a chick. Ex. 1001, Abstract (code 57), 1:14–19. In the poultry production industry, there is a “need to quickly and efficiently inspect day old chicks to determine whether or not they are sufficiently healthy to withstand the rigors of the poultry production environment.” *Id.* at 1:57–60. It is also important to “ensure that the sexes are separated out as soon as possible.” *Id.* at 1:64–67. The claimed invention is a computer-controlled system of moving platforms (e.g., conveyors) and a camera that allow a poultry producer to “quickly and automatically inspect day old chicks” to determine their health and gender, so as to remove unhealthy chicks from the flock and separate chicks of a different gender. *Id.* at 2:21–40, 3:47–67.

C. Illustrative Claim

Claims 1, 6, and 9 are the independent claims. Claim 1, reproduced below, illustrates the claimed subject matter:

1. A system for determining the sex of a chick comprising:
 - [1.1]¹ a *moving platform to support an unrestrained chick* of a particular breed;
 - [1.2] at least one stimuli to cause the chick to open its wings;
 - [1.3] an image capture device to capture at least one image of the chick; and
 - [1.4] a computer processor having a database of images of male and female wing patterns for the particular breed, the computer processor in communication with the image capture device,
 - [1.5] whereby the image capture device captures at least one image of the chick and transmits it to the computer processor

¹ We adopt Petitioner’s claim limitation numbering system for convenience.

where the image is processed and compared to the database to determine the sex.

Ex. 1001, 6:54–67 (emphasis added).

D. Asserted Grounds of Unpatentability

Petitioner asserts claims 1–18 are unpatentable on the following grounds:

Claim(s) Challenged	35 U.S.C. §	Reference(s)/ Basis
1 and 3 (Ground 1)	103 ²	Gershman, ³ Pierre ⁴
1 and 3 (Ground 2)	103	Yavnai, ⁵ Pierre
1, 6, and 7 (Ground 3)	103	Pierre, Goodwin ⁶
1, 6, and 7 (Ground 4)	103	Pierre, Gershman
2 (Ground 5)	103	Pierre, Goodwin, Tao ⁷
8 (Ground 6)	103	Pierre, Gershman, Tao
2, 4, 5, and 9–15 (Ground 7)	103	Gershman, Pierre, Tao
2, 4, 8, and 9–18 (Ground 8)	103	Yavnai, Pierre, Tao

Pet. 4. Petitioner has not filed a witness declaration in support of the Petition.

II. CLAIM CONSTRUCTION

A. Level of Ordinary Skill in the Art

Petitioner states that the level of skill in the art “is apparent from the cited art.” Pet. 20–21 (citing *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995)). Petitioner submits that a person of ordinary skill in the art (“POSITA”) “would be

² The Leahy-Smith America Invents Act, Pub. L. No. 112-29, 125 Stat. 284 (2011) (“AIA”), includes revisions to 35 U.S.C. § 103 that became effective before the filing date of the application that led to the challenged patent. Hence, this *inter partes* review is governed by the provisions of AIA 35 U.S.C. § 103.

³ Gershman, Y., *A simple way to determine the sex of one-day poultry chickens (basic principles)*, The Papers of Independent Authors [online]; Vol. 28, DNA 2014 (Ex. 1003, “Gershman”).

⁴ FR No. 2909836A1, Pub. June 20, 2008 (Ex. 1004, “Pierre”).

⁵ US 2001/0035370 A1, Pub. Nov. 1, 2001 (Ex. 1005, “Yavnai”).

⁶ US Patent No. 3,994,292, Nov. 30, 1976 (Ex. 1007, “Goodwin”).

⁷ US Patent No. 6,396,938 B1, May 28, 2002 (Ex. 1006, “Tao”).

familiar with techniques for assessing and transporting poultry in an industrial setting and would be familiar with visual and/or anatomical indicators of characteristics of a chick.” *Id.* at 21 (citing Ex. 1001, 2:6–16.). Petitioner also contends a POSITA would be “aware of image acquisition and processing techniques for automating chick assessment and chick sexing or have access to team members with this image processing knowledge.” *Id.* (citing Ex. 1006, 3:1–11). Patent Owner references a person of ordinary skill and does not contest Petitioner’s definition of a POSITA or provide any comment thereon. Prelim. Resp. 17, 20.

In determining the level of ordinary skill in the art, various factors may be considered, including the “type of problems encountered in the art; prior art solutions to those problems; rapidity with which innovations are made; sophistication of the technology; and educational level of active workers in the field.” *In re GPAC, Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995) (citing *Custom Accessories, Inc. v. Jeffrey-Allan Indus., Inc.*, 807 F.2d 955, 962 (Fed. Cir. 1986)). “These factors are not exhaustive but are merely a guide to determining the level of ordinary skill in the art.” *Daiichi Sankyo Co. v. Apotex, Inc.*, 501 F.3d 1254, 1256 (Fed. Cir. 2007). There is uncontested evidence in the record before us that reflects the knowledge and experience of a POSITA.

We determine that no express finding is necessary, on the present record, and that the level of ordinary skill in the art is reflected by the prior art of record. *See Okajima v. Bourdeau*, 261 F.3d 1350, 1355 (Fed. Cir. 2001); *In re GPAC Inc.*, 57 F.3d 1573, 1579 (Fed. Cir. 1995); *In re Oelrich*, 579 F.2d 86, 91 (CCPA 1978).

B. Claim Construction

Petitioner advocates for the “ordinary and customary meaning” of the claims and addresses the following claim language: “*moving platform*,” “*unrestrained*

chick;” and “*removing means for removing a chick from the moving platform.*”

Pet. 15–20. For example, Petitioner argues that a “*moving platform*” is “a platform that transports a chick from a first location to a second location.” *Id.* at 16 (citing Ex. 1001, 3:62–67). Petitioner also argues that an “*unrestrained chick*” is a chick that can “freely move its wings while on the moving platform.” *Id.* at 18–19 (citing Ex. 1002, 196). Patent Owner does not address claim construction and notes the Preliminary Response is “directed solely to discretionary denial under § 325(d),” except for an argument challenging Petitioner’s reliance on the Goodwin reference in Grounds 3 and 5. Prelim. Resp. 1–2n. 1, 22–23.

We note the ’124 patent specification describes a method for determining a chick’s gender “including the steps of providing a moving platform to support a chick, introducing at least one stimuli to cause the chick to spread its wings and capturing at least one image of the chick as it spreads its wings.” Ex. 1001, 3:6–10, Fig. 6. We also note the word “unrestrained” may be considered a negative claim limitation. *See Santarus, Inc. v. Par Pharmaceutical, Inc.*, 694 F.3d 1344, 1351 (Fed. Cir. 2012) (“The claim limitation specifying that sucralfate is not administered in conjunction with the Phillips formulation restricted the claims to this preferred use.”). On the present record, we determine that no explicit construction of claim terms is necessary to determine whether to institute a trial in this case. *See, e.g., Wellman, Inc. v. Eastman Chem. Co.*, 642 F.3d 1355, 1361 (Fed. Cir. 2011) (“[C]laim terms need only be construed ‘to the extent necessary to resolve the controversy.’”) (quoting *Vivid Techs., Inc. v. Am. Sci. & Eng’g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999)).

The parties are invited to address claim construction in their briefs.

III. DISCRETIONARY DENIAL UNDER 35 U.S.C. § 325(d)

Patent Owner argues we should exercise our discretion to deny institution under 35 U.S.C. § 325(d) because the Petition raises the same prior art previously considered by the Office—Gershman, Yavnai, Tao, and Goodwin—and the new Pierre reference “does nothing to cure the shortcomings of these previously considered references.” Prelim. Resp. 7–8. Petitioner argues the combinations of prior art and related arguments presented in Grounds 1–8 of the Petition, all of which include Gershman and/or Pierre, “are entirely new with respect to the critical points which led to allowance of the ’124 patent and were not considered by the Examiner.” Pet. 66. For the reasons stated below, we determine the record does not warrant exercising our discretion to deny institution of *inter partes* review under Section 325(d).

A. The Gershman and Pierre References

1. Gershman (Ex. 1003)

Gershman discloses a computerized digital imaging and processing system for photographing the open wings of a chick to determine the chick’s sex. Ex. 1003. Gershman’s system utilizes a “moving plate” on which a chick is placed, and a sharp downward movement of the plate causes the chick to open its wings “reflexively” for digital image capture. *Id.* at 3–7, Figs. 3, 5, 6. Gershman Figure 3 shows a chick on a moving plate and is reproduced below:



Fig.3 Chick on plate. Light radiates from the bottom

Id. at 5. In Figure 3, above, the chick was “placed on plate manually” and the plate “pushed down from a height of 20 cm [8”] on the shock absorbers (Fig. 3).” *Id.*

Gershman employs a “mechanical activator” to “ensure sharp fall of [the] plate” such that chicks “reflexively will open their wings.” *Id.* at 5–6. Gershman takes a digital image of a chick with open wings, as depicted in Figure 5 below:

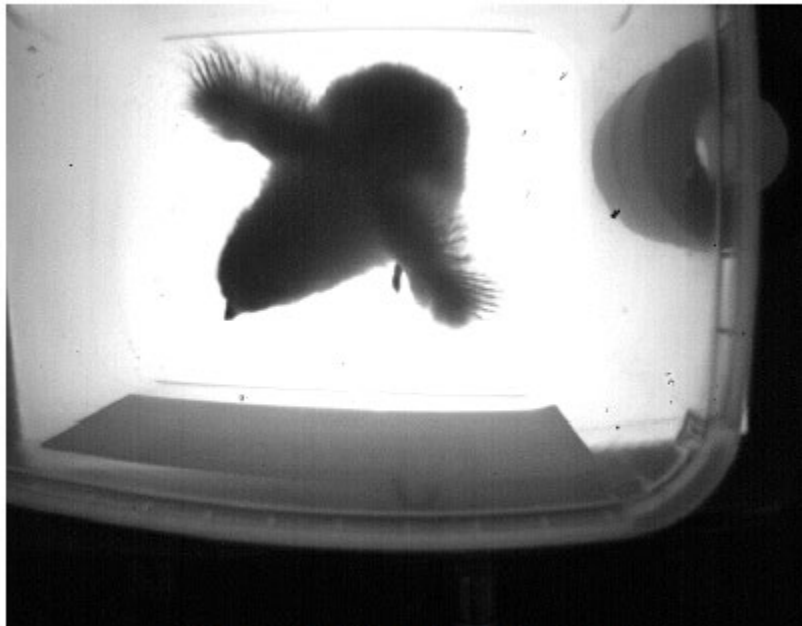


Fig. 5. Falling female chick

Id. at 7. Figure 5, above, is a digital image of a falling female chick including the chick's open wings. Gershman uses image processing techniques for "automatic sorting" of the chicks by sex. *Id.* at 4, 10. Gershman concludes as follows:

It is obvious, that this idea can simply [be] adapted on to the lines that are wide used for counting and packaging hatching chicks in industrial incubators.

It will be necessary only simple modernization - to perform upgrading on their end - to add nodes lighting, electro optic unit, computer, moving plates with corresponding springs, activator, air ejectors for blowing chickens and appropriate bins.

Id. at 10.

2. *Pierre (Ex. 1004)*

Pierre is directed to automated, image-based determination of a chick's health and gender in industrial poultry breeding facilities. Ex. 1004, 3–4. Pierre discloses a system that places "each bird, one at a time, under conditions in which it will open its wings, across from a digital imaging camera." *Id.* at 4. Each bird is placed "under conditions where it will deploy its wings naturally. . . while falling," so as to capture an image of the "open wings such that the image captured for image processing may be optimal for comparison with a reference image." *Id.* at 4–5. Pierre further discloses a computerized process for comparing the captured image with reference images to determine "the state of the bird's health, the sex of chicks, or their age." *Id.*

B. *Advanced Bionics Analysis*

The two-part *Advanced Bionics* framework for analyzing discretionary denial under Section 325(d) involves weighing six nonexclusive factors referred to as the *Becton Dickinson* factors. *Advanced Bionics, LLC v. MED-EL Elektromedizinische Geräte GmbH*, IPR2019-01469, Paper 6, 8–11 (PTAB Feb.

13, 2020) (precedential); *see also Becton, Dickinson & Co. v. B. Braun Melsungen AG*, IPR2017-01586, Paper 8 at 17–18 (PTAB Dec. 15, 2017) (precedential as to § III.C.5, para. 1). We analyze Patent Owner’s request for discretionary denial under the *Advanced Bionics-Becton Dickinson* framework.⁸

Advanced Bionics Part I

We first evaluate *Becton, Dickinson* factors (a), (b), and (d) to determine whether Petitioner has advanced the same or substantially the same prior art or arguments previously presented to the Office. Those factors are:

- (a) the similarities and material differences between the asserted art and the prior art involved during examination;
- (b) the cumulative nature of the asserted art and the prior art evaluated during examination; [and]
- (d) the extent of the overlap between the arguments made during examination and the manner in which Petitioner relies on the prior art or Patent Owner distinguishes the prior art.

Becton, Dickinson, Paper 8 at 17–18.

During prosecution of the application leading to issuance of the ’124 patent, applicant submitted an information disclosure statement listing various prior art references, including Tao, Yavnai, Gershman, and Goodwin, that the Examiner acknowledged having considered. Ex. 1002, 2–3, 252–254. The Examiner applied Tao (anticipation) and combinations of Tao-Yavnai, Tao-Yavnai-Gershman, and Tao-Gershman (obviousness) in an office action rejecting the pending claims. *Id.*

⁸ The Office recently issued a Notice of Proposed Rulemaking proposing to “limit the application of 325(d) to circumstances in which the same or substantially the same prior art or arguments previously presented to the Office were meaningfully addressed by the Office.” *USPTO Notice of Proposed Rulemaking*, 89 Fed. Reg. No. 77, 28693, 28700 (April 19, 2024) (cited hereafter as “NPRM”).

at 217–228. In the Reasons for Allowance after applicant’s claim amendments, the Examiner accepted applicant’s arguments distinguishing Tao, Yavnai, and Gershman as not disclosing, teaching, or suggesting “*a moving platform to support an unrestrained chick*.”⁹ *Id.* at 129–130 (underline in original); *see also id.* at 183–185, 194–197 (claim amendment and argument). The Examiner did not apply or cite Goodwin, and Pierre was not made of record by applicant or the Examiner. *Id.* at 129–130, 217–228.

Patent Owner argues that Part 1 of *Advanced Bionics* is satisfied because “Gershman, Yavnai, Goodwin, and Tao were each considered during prosecution.” Prelim. Resp. 8. Petitioner acknowledges the “overlap” of the Tao, Yavnai, and Gershman references raised in the Petition and considered during prosecution. Pet. 66. Petitioner, however, argues the combination of references and obviousness arguments presented in the Petition, particularly that Gershman and Gershman-Pierre disclose “*a moving platform to support an unrestrained chick*,” are new and non-cumulative. *Id.* at 65–69. We agree with Petitioner.

The Examiner did not consider any combination involving Pierre because Pierre is not of record in the prosecution history. In its combination of Gershman and Pierre, Petitioner asserts new, non-cumulative arguments in Ground 1 that Gershman discloses the “*unrestrained chick*” limitation. *Id.* at 21–22. Patent Owner even acknowledges Petitioner’s evidence that “Gershman teaches causing a chick to fall so that the chick naturally deploys its wings.” Prelim. Resp. 10 (citing Pet. 22; Gershman Ex. 1003, 6). Petitioner also emphasizes, and we agree, the Examiner cited Gershman only for the disclosure of a library of stored images and related image processing, but “never discussed the fact that Gershman also teaches

⁹ Hereafter, we reference the limitation as the “*unrestrained chick*” limitation.

a moving platform supporting an unrestrained chick for use in a chick imaging and sexing system.” Pet. 22 (citing Ex. 1002, 220–221, 226–228).

Patent Owner contends that Gershman Figure 3, which depicts a chick on a “moving plate,” “was in front of the Examiner during examination.” Prelim. Resp. 14 (citing Ex. 1002, 129). Patent Owner relies on the Examiner’s Reasons for Allowance to support that assertion, but we cannot find a reference to Gershman Figure 3 in the Examiner’s Office Action or Reasons for Allowance. Ex. 1002, 123–132, 204–228. The prosecution history does not support Patent Owner’s argument because the prosecution history indicates the Examiner meaningfully considered Gershman only for its disclosure of a “database having a library of digital images” and related software and processing, not for Gershman’s “moving plate” system as a disclosure of the “*unrestrained chick*” limitation. *See* Ex. 1002, 220–221, 226–228; *see also* Pet. 22, 66 (citing same).

Petitioner also asserts new, non-cumulative art and arguments in Ground 4 that Pierre-Gershman discloses the “*unrestrained chick*” limitation. Pet. 36–37. Patent Owner acknowledges Pierre is a “new reference” not considered by the Examiner, but argues that Petitioner’s “new” arguments regarding the “*unrestrained chick*” limitation are “not anything related to Pierre.” Prelim. Resp. 9 (citing Pet. 66–68). To the contrary, Petitioner emphasizes Pierre’s teaching of a means for placing an individual chick “under conditions in which it will open its wings, across from a digital imaging camera” and “deploy its wings naturally.” Pet. 36 (citing Ex. 1004, 4); *see also* Ex. 1004, 5 (chick “will deploy its wings naturally ... while falling, it opens its wings itself”). Petitioner’s argument combines Pierre with Gershman’s moving plate disclosure as a teaching of the “*unrestrained chick*” limitation. *Id.* at 36–37. Thus, Petitioner relies on the teachings of Pierre in a new combination with Gershman to support a previously

unconsidered argument that the “*unrestrained chick*” limitation would have been obvious to a POSITA.

Petitioner further combines Pierre with Gershman in Grounds 6 and 7, with Yavnai in Grounds 2 and 8, and with Goodwin in Grounds 3 and 5 to support its obviousness arguments, particularly the teaching of the “*unrestrained chick*” limitation, all of which are new arguments not considered by the Examiner.

In sum, we find Petitioner presents new prior art combinations and arguments in Grounds 1–8 that were not previously considered by the Office. *See Advanced Bionics*, Paper 6 at 8; *see also Meta Platforms, Inc. v. Mobile Data Techns., LLC*, IPR2024-00246, Paper 12, 14–16 (PTAB June 11, 2024) (*Advanced Bionics* Part 1 not satisfied, even though two references were considered by Examiner, where petition sets forth new combination of references); *Profrac Holding Corp. v. Halliburton Energy Services, Inc.*, IPR2023-01318, Paper 7, 23 (PTAB April 15, 2024) (*Advanced Bionics* Part 1 not satisfied, even though primary reference considered by Examiner, where petition sets forth new combination of references).

Advanced Bionics Part 2

We also consider whether Petitioner has demonstrated 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; *see also NPRM* at 28700 (“material error may include misapprehending or overlooking clear, specific evidence in the prior record, including teachings of the relevant prior art that impact the patentability of the challenged claim”). We evaluate *Becton, Dickinson*

factors (c), (e), and (f) to determine whether Petitioner has demonstrated material error. *Id.* at 10. Those factors are:

- (c) the extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection;
- (e) whether Petitioner has pointed out sufficiently how the Examiner erred in its evaluation of the asserted prior art; and
- (f) the extent to which additional evidence and facts presented in the Petition warrant reconsideration of the prior art or arguments.

Becton, Dickinson, Paper 8 at 17–18.

According to our precedent, “if the record of the Office’s previous consideration of the art is not well developed or silent, then a petitioner may show the Office erred by overlooking something persuasive under [*Becton, Dickinson*] factors (e) and (f).” *Advanced Bionics*, Paper 6 at 10; *see also Keysight Techs., Inc. v. Centripetal Networks, Inc.*, IPR2022-01421, Paper 14 (PTAB Aug. 24, 2023) (Director Review vacating Board decision denying institution, finding examiner misapprehended or overlooked prior Board determinations regarding same references in related IPR). In evaluating *Becton, Dickinson* factors (c) and (e), we determine Petitioner has shown the Examiner erred by overlooking Gershman’s teaching of a “moving plate” and digital image capture of an unrestrained chick as a disclosure of the “*unrestrained chick*” limitation. More particularly, the record evidence at this stage of the proceeding indicates the Examiner did not meaningfully consider Gershman’s disclosure: (i) of Figure 3, showing a chick on a “moving plate,” (ii) of Figures 5 and 6, digital images of a chick “reflexively” opening its wings without restraint for image capture, or (iii) that it would have been “obvious” to “adapt[]” and “add” the “moving plate” system to the “end” of

industrial chick processing lines. Pet. 10, 22, 36–37 (*compare* Ex. 1002, 220–221, 226–228 *with* Ex. 1003, 1, 2, 5, 6, 10). Regarding *Becton, Dickinson* factor (f), the Petition presents additional evidence and facts, including material teachings of the new Pierre reference regarding the “*unrestrained chick*” limitation as detailed in Part 1 above, that warrant *inter partes* review.

Conclusion Regarding Discretionary Denial

For the reasons given above, we decline to exercise our discretion to deny institution of *inter partes* review under Section 325(d).

IV. OBVIOUSNESS ANALYSIS

A. Asserted Obviousness of Claims 1 and 3 Over Gershman-Pierre or Yavnai-Pierre (Grounds 1 and 2)

Petitioner argues that independent claim 1 and dependent claim 3 of the ’124 patent would have been obvious over Gershman in view of Pierre (Ground 1) or over Yavnai in view of Pierre (Ground 2) under 35 U.S.C. § 103. Pet. 21–29. A patent claim is unpatentable under 35 U.S.C. § 103 if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person of ordinary skill in the art. *See KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 406 (2007) (quoting pre-AIA 35 U.S.C. § 103(a)). We assess Petitioner’s evidence and argument according to the above-referenced standard.

1. Ground 1 Gershman-Pierre

In Ground 1, Petitioner relies on Gershman for the “*unrestrained chick*,” “*stimuli*,” and “*image capture device*” limitations [1.1]–[1.3], and a combination of Gershman and Pierre for the “*computer processor having a database of images*” limitations [1.4] and [1.5]. Pet. 21–24. We analyze the limitations of claim 1 in

view of Gershman and Pierre using Petitioner's claim limitation numbering system for convenience.

[Preamble]: “*A system for determining the sex of a chick comprising:*”

Petitioner asserts Gershman is directed to a “computerized optical separator for determining the sex of one-day chickens, i.e., a system.” *Id.* at 21 (citing Ex. 1003, 1 (Abstract)). Patent Owner does not address this limitation. On the present record, Gershman supports Petitioner's assertion.¹⁰

Limitation [1.1]: “*a moving platform to support an unrestrained chick of a particular breed;*”

Petitioner asserts Gershman's moving plate “transports a chick from a first location to a second location via a mechanical activator,” that the chick is “not restrained on the moving plate,” and the movement of the plate causes chicks to “reflexively . . . open their wings.” *Id.* at 22 (citing Ex. 1003, 5, 6). Petitioner further notes Gershman teaches “the chick being a particular breed having a genetic factor resulting in sex-based differences in feather patterns,” as part of the disclosure of the “*unrestrained chick*” limitation. *Id.* (citing Ex. 1003, 1).

Patent Owner acknowledges that “Gershman teaches causing a chick to fall so that the chick naturally deploys its wings.” Prelim. Resp. 10 (citing Pet. 22; Gershman Ex. 1003, 6). Beyond arguing the Examiner's statements made during prosecution, addressed in Section III., above, Patent Owner argues Gershman's moving plate does not meet the “*unrestrained chick*” limitation because the chick is supported on the plate “only . . . when the plate is *stationary*.” *Id.* at 15 (emphasis in original). The present record does not support Patent Owner's

¹⁰ We need not determine whether the preamble is limiting because Petitioner sufficiently shows at this stage that Gershman discloses the subject matter recited in the preamble.

argument.

Patent Owner’s argument is not persuasive because it relies on an implied claim limitation that does not appear to be supported by the claim language, specification, or prosecution history of the ’124 patent. Gershman Figures 3, 5, and 6 show a chick supported on a “moving plate” and moving from a first location to a second location via a mechanical activator as argued by Petitioner. Pet. 9, 10, 22 (citing Ex. 1003, 2, 3, 5, 6, 10). Patent Owner’s preliminary response, moreover, does not address Gershman’s teaching to add the moving plate system to the end of an industrial chick processing line, such as a conventional chick conveyor depicted in Yavnai, Tao, and Goodwin. Ex. 1003, 10; *see also* Yavnai Ex. 1005 ¶¶ 33 (“transferred by conveyor”), 34 (“round carousel”), 42 (“[a] conveyor belt includes an endless belt supported and moved by rollers in the conventional manner”),¹¹ Figs. 3, 5; Tao Ex. 1006, 3:62–67 (“transported on a conveyor”), Fig. 1; Goodwin Ex. 1007, Abstract (code 57) (“a plurality of annular conveyors” and “a plurality of belt conveyors for carrying chicks”), Figs. 1, 2.

On the present record, Gershman supports Petitioner’s assertion that the moving plate system is a disclosure of the “*unrestrained chick*” limitation.

Limitation [1.2]: “*at least one stimuli to cause the chick to open its wings;*”

Petitioner relies on Gershman’s acceleration of the moving plate to induce “reflex opening of the wings” as disclosing a “*stimuli*” recited in limitation [1.2]. *Id.* at 22 (citing Ex. 1003, 3, 6). Patent Owner does not address this limitation. *See* Prelim. Resp. 12–15. On the present record, Gershman supports Petitioner’s assertion.

Limitation [1.3]: “*an image capture device to capture at least one image of*

¹¹ Quotations from patent documents may omit or de-emphasize bold numerals.

the chick;”

Petitioner cites Gershman’s disclosure of a digital, black and white, CCD camera to photograph a chick, as a disclosure of limitation [1.3]. *Id.* at 23 (citing Ex. 1003, 2, 5). Patent Owner does not address this limitation. *See* Prelim. Resp. 12–15. On the present record, Gershman supports Petitioner’s assertion.

Limitation [1.4]: *“a computer processor having a database of images of male and female wing patterns for the particular breed, the computer processor in communication with the image capture device,”*

Petitioner relies on Gershman’s teaching of a computer processor in communication with the digital camera to receive photographic images taken of the chicks for image processing. *Id.* at 23 (citing Ex. 1003, 2, 4, 5). Petitioner acknowledges Gershman does not disclose a database of male and female wing patterns as recited in limitation [1.4], but relies on Pierre’s teaching of “reference images recording a specific state” of a chick that includes different genders. *Id.* (citing Ex. 1004, 3). Petitioner argues it would have been obvious to store a collection of reference images, such as Pierre’s disclosure of the visible differences in plumage between a rooster (male) and a hen (female), in a database in Gershman’s computer to determine the sex of a chick. *Id.* at 23–24; *see also* Ex. 1004, 5 (“differences in plumage [] are seen clearly, for example between a rooster and a hen”). Patent Owner does not address this limitation. *See* Prelim. Resp. 12–15. On the present record, Gershman and Pierre support Petitioner’s assertion of obviousness.

Limitation [1.5]: *“whereby the image capture device captures at least one image of the chick and transmits it to the computer processor where the image is processed and compared to the database to determine the sex.”*

For limitation [1.5], Petitioner relies on Gershman’s disclosure that the

image of a chick is processed by a computer and Pierre's teaching that a "digital image is compared with reference images to determine the sex of a chick." *Id.* at 24 (citing Ex. 1003, 2–3; Ex. 1004, 5). Petitioner argues it would have been obvious for a POSITA to use Gershman's computer to compare photographic images of a chick with a database of reference images of male and female wing patterns as taught by Pierre, to determine the sex of a chick with a reasonable expectation of success. *Id.* Patent Owner acknowledges that "Gershman, Yavnai, and Tao each teach use of a camera to capture digital images of a chick," but does not otherwise address this limitation. Prelim. Resp. 10 (citing Pet. 23, 27, 42; Ex. 1003, 2; Ex. 1005 ¶ 38; Ex. 1006, 5:36–38, Fig. 1). On the present record, Gershman and Pierre support Petitioner's assertion of obviousness.

Claim 3 recites a group of alternative stimuli including "*a stream of air blowing on the chick.*" Petitioner cites Gershman's teaching to blow compressed air on a chick, causing it to open its wings, as disclosing claim 3. Pet. 25 (citing Ex. 1003, 4, 6). Patent Owner does not address claim 3 on the merits. *See* Prelim. Resp. 12–18. On the present record, Gershman supports Petitioner's assertion.

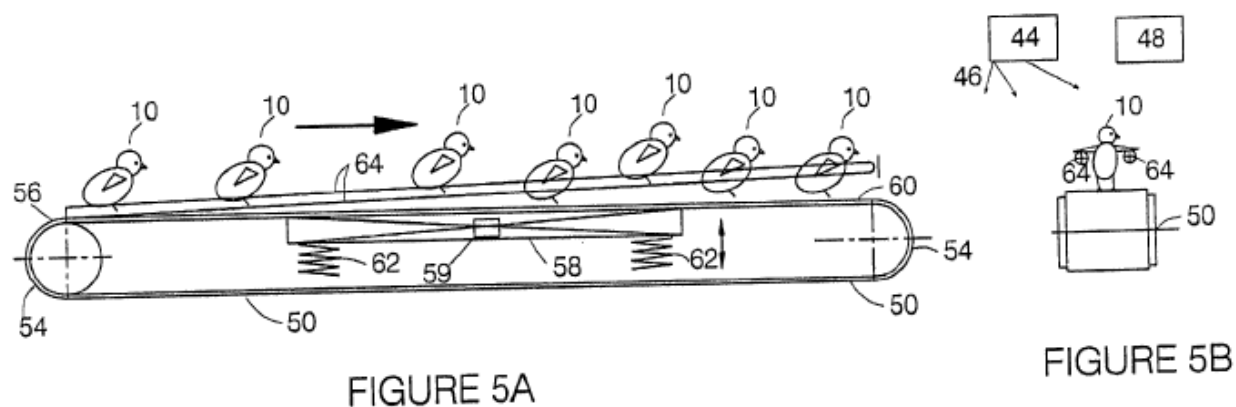
On the present record, we determine Petitioner's argument and evidence demonstrate a reasonable likelihood of prevailing on Ground 1.

2. Ground 2 Yavnai-Pierre

Petitioner argues Yavnai (Ex. 1005) discloses limitations [1.1]–[1.3], including the "*unrestrained chick*" limitation. Pet. 25–27. Petitioner argues Yavnai Figure 5A depicts a chick on a conveyor where the chick's wings "are not in contact with the poles on either side of the conveyor until the end." *Id.* at 26 (citing Ex. 1005, Fig. 5A). Petitioner argues "the chick is unrestrained over a substantial portion of the platform" and is free "to jump up and down" until it reaches the end of the conveyor, where the camera station captures an image of the

chick's open wings on the poles. *Id.* at 26, 67–68; *see also* Ex. 1005 ¶ 42, Fig. 5B. Patent Owner argues Yavnai Figure 5A shows at least the bottom of a chick “between the poles throughout the conveyor.” Prelim. Resp. 18.

Yavnai Figures 5A and 5B are reproduced below:



Yavnai Figures 5A and 5B, shown above, depict a chick moving on a conventional conveyor belt (“*moving platform*”) similar to that described in the ’124 patent, with two parallel poles (64) along the length of the conveyor at an elevated angle. Ex. 1005 ¶ 42, Figs. 5A, 5B. A chick is depicted at different points on or above the conveyor as it “vibrate[s] up and down,” and, although not entirely clear, “[c]hicks that have jumped up are shown in phantom.” *Id.* A chick’s wings are supported by the poles at least at the camera station, as shown in Figure 5B. *Id.*

Patent Owner argues the Examiner “accepted Patent Owner’s arguments” distinguishing Yavnai from the “*unrestrained chick*” limitation during prosecution and there is no reason to disturb the Examiner’s conclusion. Prelim. Resp. 16. Patent Owner further argues Yavnai is “specifically designed to restrain a chick,” using poles or cups for image capture of a chick’s wings at the camera station. *Id.* (citing Ex. 1005 ¶ 42). Yavnai, however, uses the word “support” rather than “restrain.” Yavnai states the “[p]oles support the spread wings while ... [a] camera photographs the wing tips of [a] chick.” *Id.* ¶ 42; *see also id.* at ¶ 43 (“[t]he top

edges ... support the spread wings”). As for the use of a funnel and cup apparatus, Yavnai states the “wings of [a] chick remain spread out on [the] edge” of the cup for image capture, as shown in Figure 4. *Id.* ¶ 37.

Petitioner acknowledges Yavnai “does not expressly teach the claimed database of images” for an image processing comparison as recited in claim limitations [1.4] and [1.5]. Pet. 27–29. Petitioner relies on Pierre’s teaching the use of “reference images recording a specific state” of a bird, e.g., male or female, in the same way Petitioner relies on Pierre in Ground 1. *Id.* at 28 (citing Ex. 1004, 4). Petitioner argues it would have been obvious to a POSITA that Yavnai’s camera “is in communication with a computer processor having the database of reference images,” as disclosed in Pierre, to permit comparison of the captured image of a chick “in the computer processing method taught by Pierre” and to determine the sex of a chick with a reasonable expectation of success. *Id.* at 28–29. Patent Owner does not address limitations [1.4] and [1.5].

On the present record, Yavnai-Pierre sufficiently supports Petitioner’s assertion that the limitations of claims 1 and 3 are disclosed and it would have been obvious to combine the references. Therefore, Petitioner has demonstrated a reasonable likelihood of prevailing on Ground 2.¹²

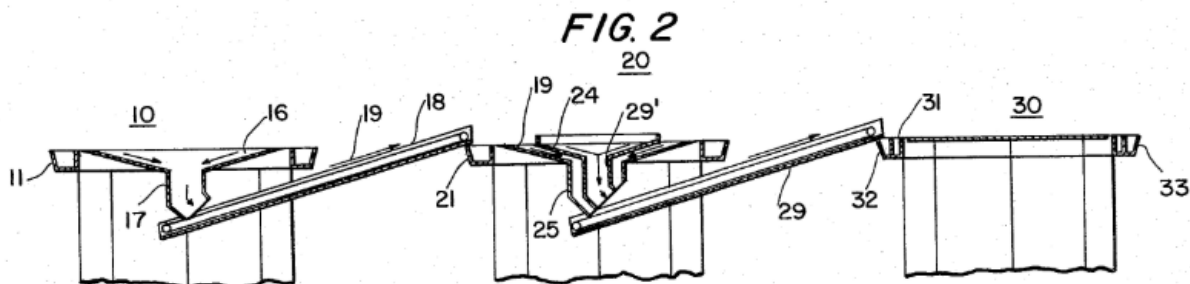
B. Asserted Obviousness of Claims 1, 6, and 7 Over Pierre-Goodwin or Pierre-Gershman (Grounds 3 and 4)

Petitioner argues that independent claims 1 and 6 and dependent claim 7 of the ’124 patent would have been obvious over Pierre in view of Goodwin (Ground 3) or Pierre in view of Gershman (Ground 4).

¹² The same analysis applies to Ground 8 (Yavnai-Pierre-Tao), which relies on Yavnai for teaching the “*unrestrained chick*” limitation and Pierre for teaching the “*database of images*” limitations [9.3] and [9.4]. See Pet. 54, 57–59.

1. Ground 3 Pierre-Goodwin

Pierre was discussed in Section III.A.2. Goodwin is directed to a chick processing system that uses angled conveyors to transport chicks to manual processing stations, which include a manual chick “sexing station.” Goodwin Ex. 1007, 1:49–2:46, Fig. 2. Figure 2 from Goodwin is reproduced below:



Id. Goodwin Figure 2, shown above, depicts the transition from the first processing station (10) to the second processing station (20) described as follows:

The debeaked chick is placed in conical trough 16 and passes by gravity into chute 17 to drop on upwardly inclined and driven linear belt conveyor 18 whose direction of motion is shown by arrow 19
. . . . The chicks on conveyor belt 18 are carried upward to the sexing station 20 where they drop into a rotary annular conveyor trough 21.

Id. at 2:13–20. The chicks are inspected manually by an operator to determine the sex of each chick, which includes “inspection of the wing feathers.” *Id.* at 2:22–32.

Petitioner relies on the combination of Pierre-Goodwin for teaching the “*unrestrained chick*” limitation in independent claims 1 and 6. Pet. 30–34. Claim 7 depends from claim 6. Petitioner argues it would have been obvious to a POSITA to “replace the manual chick sexing station of Goodwin with the automated chick sexing station of Pierre.” *Id.* at 31. Petitioner reasons that

placement of Pierre’s image capture device “at the upper end of Goodwin’s conveyor 18 and capturing an image of each chick when it drops off the end of the conveyor” would have allowed for the further automation of Goodwin and corresponding reduction in personnel needed to operate the chick processing line. *Id.*

Patent Owner argues that a POSITA “seeking to avoid the many problems associated with manual sexing techniques would *not* have looked” to Goodwin’s manual inspection system. Prelim. Resp. 20–21 (emphasis in original). Patent Owner also emphasizes Goodwin does not disclose or teach chicks in free fall will open their wings, but rather teaches “undesirable manual inspection methods the 124 Patent seeks to avoid.” *Id.* at 21; *see also* Ex. 1007, 2:29–32 (“operator” conducts “inspection of the wing feathers.”). Patent Owner further highlights Petitioner’s lack of evidence “as to how or where or why one would mount any imaging system, such as Pierre’s system, relative to the narrow and shallow trough 21 of Goodwin.” Prelim. Resp. 21 (citing Ex. 1007, 2:13–20, Fig. 2).

On the present record, we need not make a determination on the merits of Ground 3.¹³

2. Ground 4 Pierre-Gershman

Petitioner makes similar arguments when applying Pierre-Gershman to independent claims 1 and 6, with the caveat that claim 6 is directed to “*determining the health*” rather than the “*sex*” of a chick. *See* Pet. 35–41. We focus our analysis on claim 1.

[Preamble]: “*A system for determining the sex of a chick comprising:*”

¹³ The same applies to Ground 5 (Pierre-Goodwin-Tao) addressed to claim 2, which depends from claim 1 and necessarily relies on Pierre-Goodwin for the “*unrestrained chick*” limitation. *See* Pet. 41–42.

Petitioner states that Pierre is directed to “determining the sex of chicks and an installation for making this determination.” *Id.* at 36 (citing Ex. 1004, 4). Patent Owner does not address this limitation. On the present record, Pierre supports Petitioner’s assertion.

Limitation [1.1]: “*a moving platform to support an unrestrained chick of a particular breed;*”

Petitioner relies on the combination of Pierre-Gershman for teaching the “*unrestrained chick*” limitation in independent claims 1 and 6. Pet. 36–37, 39–40. Petitioner emphasizes Pierre’s teaching of placing a chick in a position where it is falling so that it will open its wings “naturally” for image capture by a digital camera. *Id.* at 36, 39 (citing Ex. 1004, 4). Petitioner argues it would have been obvious to use Gershman’s moving plate to cause a chick to fall and “reflexively” open its wings for image capture as in Pierre, “because both Pierre and Gershman are in the same field and directed to solving the same problem, namely, automating assessment of chicks by imaging their wings.” *Id.* at 37, 39–40. Patent Owner does not address the argument. *See* Prelim. Resp. 12–15. On the present record, we agree with Petitioner’s reliance on Pierre-Gershman and also refer to our analysis of Ground 1 and the teaching of Gershman’s “moving plate” as a disclosure of the “*unrestrained chick*” limitation.

On the present record, Petitioner’s argument and evidence support the position that Pierre and Gershman are analogous art and the proposed combination of Pierre-Gershman teaches the “*unrestrained chick*” limitation.

Limitation [1.2]: “*at least one stimuli to cause the chick to open its wings;*”

Petitioner relies on Pierre’s teaching that “causing a chick to fall so that the chick naturally deploys its wings” is one such stimuli. Pet. 37 (citing Ex. 1004, claims 3, 4). Patent Owner does not address this limitation. *See* Prelim. Resp. 12–

15. On the present record, Pierre supports Petitioner’s assertion.

Limitation [1.3]: *“an image capture device to capture at least one image of the chick;”*

Petitioner cites Pierre’s disclosure of a camera to capture digital images of a chick. Pet. 37 (citing Ex. 1004, 3). Patent Owner does not address this limitation. See Prelim. Resp. 12–15. On the present record, Pierre supports Petitioner’s assertion.

Limitation [1.4]: *“a computer processor having a database of images of male and female wing patterns for the particular breed, the computer processor in communication with the image capture device,”*

Petitioner relies on Pierre’s teaching to capture images of a chick for image processing and comparison with reference images stored in a database, as a disclosure of limitation [1.4]. Pet. 37–38 (citing Ex. 1004, 3).¹⁴ Petitioner emphasizes Pierre’s disclosure that “differences in plumage” between a male rooster and a female hen are visible when comparing reference images to a captured image. *Id.* at 38 (citing Ex. 1004, 2–3); *see also* Ex. 1004, 5 (“differences in plumage [] are seen clearly, for example between a rooster and a hen”). Patent Owner does not address this limitation. See Prelim. Resp. 12–15. On the present record, Pierre supports Petitioner’s assertion.

Limitation [1.5]: *“whereby the image capture device captures at least one image of the chick and transmits it to the computer processor where the image is processed and compared to the database to determine the sex.”*

¹⁴ Petitioner relies on Pierre’s disclosure of “reference images recording a specific state” including the “health” of a bird, as a teaching of limitation [6.3] reciting a “database of images of healthy and unhealthy chicks of the same breed.” Pet. 40 (citing Ex. 1004, 3–4).

Petitioner relies on Pierre’s teaching that a captured digital image is compared with reference images to determine the sex of a chick as a disclosure of limitation [1.5]. Pet. 38 (citing Ex. 1004, 4); *see also* Ex. 1004, 5 (“the image captured for image processing may be optimal for comparison with a reference image”). Patent Owner does not address this limitation. *See* Prelim. Resp. 12–15. On the present record, Pierre supports Petitioner’s assertion.

On the present record, we determine Petitioner’s argument and evidence demonstrates a reasonable likelihood it would prevail in showing the unpatentability of independent claims 1 and 6 as obvious over Pierre-Gershman.

Claim 7 depends from claim 6 and recites “*wherein the image is that of the feet, face, abdomen, wing or legs.*” Petitioner relies on Pierre’s teaching to capture an image of a chick’s open wings as a disclosure of claim 7. Pet. 41 (citing Ex. 1004, 4). Patent Owner does not address claim 7 on the merits. *See* Prelim. Resp. 12–18.

On the present record, we determine Petitioner’s argument and evidence demonstrate a reasonable likelihood it would prevail in showing the unpatentability of claim 7 as obvious over Pierre-Gershman.

V. CONCLUSION

For the foregoing reasons, we determine Petitioner has established a reasonable likelihood of prevailing in its challenge to the patentability of at least one claim in the ’124 patent. Therefore, we institute *inter partes* review of all challenged claims on all grounds. *See SAS* 138 S. Ct. at 1359–60.

VI. ORDER

In consideration of the foregoing, it is hereby:

ORDERED that, pursuant to 35 U.S.C. § 314(a), an *inter partes* review of claims 1–18 of the '124 patent is instituted with respect to all grounds set forth in the Petition; and

FURTHER ORDERED that, pursuant to 35 U.S.C. § 314(c) and 37 C.F.R. § 42.4(b), *inter partes* review of the '124 patent shall commence on the entry date of this Order, and notice is hereby given of the institution of a trial.

For PETITIONER:

Andrew M. Ollis
Philippe JC Signore
Cristina B. Lai
OBLON, MCCLELLAND, MAIER & NEUSTADT LLP
cpdocketollis@oblon.com
cpdocketsignore@oblon.com
clai@oblon.com

For PATENT OWNER:

Richard T. Matthews
Brian Drozd
Andrew R. Shores
WILLIAMS MULLEN, P.C.
rmatthews@williamsmullen.com
bdrozd@williamsmullen.com
ashores@williamsmullen.com

Raymond N. Nimrod
QUINN EMANUEL URQHART & SULLIVAN LLP
raynimrod@quinnemanuel.com