

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.

Case No. IPR2024-00595
U.S. Patent No. 10,806,124

PATENT OWNER SUR-REPLY

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EXHIBIT LIST

No.	Exhibit
1001	U.S. Patent No. 10,806,124 to Karimpour
1002	Prosecution history of Application No. 15/775,706, resulting in U.S. Patent No. 10,806,124
1003	Gershman, Y., “A simple way to determine the sex of one-day poultry chickens”; The Papers of Independent Authors [online]; vol. 28, DNA 2014, [https://vixra.org/pdf/1405.0016v1.pdf] (as cited by Applicant)
1004	FR Patent Publication No. 2909836 to Pierre et al., with Certified English Translation
1005	U.S. Patent Publication No. 2001/0035370 to Yavnai et al.
1006	U.S. Patent No. 6,396,938 to Tao et al.
1007	U.S. Patent No. 3,994,292 to Goodwin
2002	Declaration of Kevin Keener, Ph.D., P.E.
2003	Declaration of Lina J. Karam, Ph.D.
2004	Curriculum Vitae of Lina J. Karam, Ph.D.
2005	Excerpts from Merriam Webster Dictionary
2006	Adjanohoun et al., “Chick processing and automation within the hatchery”; International Hatchery Practice, Vol. 22 No. 8, pp 7-11.
2007	Curriculum Vitae of Kevin Keener, Ph.D., P.E.
2008	Deposition Transcript of Shawn LeCroy, dated April 15, 2025

TABLE OF ABBREVIATIONS

Abbreviation	Meaning
Guide	Consolidated Trial Practice Guide
PO	Patent Owner Targan, Inc.
Petitioners	Petitioners Ceva Santé Animale S.A., Egg-Chick Automated Technologies S.A.S, and Ceva Animal Health, LLC's
Petition	Petitioners' Petition (Paper 1)
POR	Patent Owner Response (Paper 16)
Reply	Petitioners' Reply (Paper 19)
POSA	Person Of Ordinary Skill In The Art at the time of the invention
RES	Reasonable Expectation of Success

*All emphases in this brief are supplied unless otherwise noted.

I. INTRODUCTION

The Reply confirms Petitioners cannot show invalidity under any of their eight obviousness grounds, and thus all claims should be upheld.

For Grounds 1, 4, and 6-7, Petitioners must show that Gershman discloses the “moving platform to support an unrestrained chick” limitation or they lose on all four grounds. The Reply concedes that this limitation requires that the platform be *moving* while it at the time *supports* the unrestrained chick. But, the Petition failed to point to any such moving platform. Confirming that, the Reply attempts to rely on two entirely new alleged embodiments, based on a new expert declaration. Petitioners submitted no expert declaration with the Petition. But, neither of these new embodiments is actually disclosed in Gershman and, indeed, their expert even admitted to “reading into” Gershman one of them. Ex. 2008, 39:1-12. The new theories should be rejected.

For Grounds 2 and 8, Petitioners must show that Yavnai discloses the “unrestrained chick” limitation, or they lose on both grounds. But, Petitioners’ expert conceded at his deposition that the chick in Yavnai is restrained by poles under Petitioners’ own proposed construction of “unrestrained chick.” Specifically, Petitioners contend that “unrestrained chick” means “a chick that is ***able to freely move its wings*** while on the

moving platform.” Pet. 1, 19. But, Petitioners’ expert agreed that the Yavnai poles “will *prevent [the chick] from moving its wings freely.*” Ex. 2008, 23:9-12. Thus, Yavnai fails to disclose an “unrestrained chick” under Petitioners’ own construction and also for the reasons identified by PO’s expert, Dr. Kevin Keener.

For all grounds, Petitioners must show that Pierre discloses or renders obvious the “database of images of male and female wing patterns” limitations. There is no dispute that Pierre nowhere mentions any database. And as PO’s database expert, Dr. Lina Karam, explained in her 30+ page declaration, it would not have been obvious to modify Pierre to use a database for multiple reasons. See Ex. 2003. Incredibly, the Reply does not mention or make any attempt to address her opinions. Similarly, Petitioners’ expert did not address Dr. Karam’s opinions and, indeed, he admitted he did not even read her declaration. Ex. 2008, 19:5-15. Dr. Karam’s opinions stand un rebutted and Petitioners’ Pierre arguments fail.

For the above reasons, all of Petitioners’ obviousness combinations fail because none of the combinations include all elements of any challenged claim. Regardless, even if they did, all grounds still fail because the Reply fails to establish there would be any motivation or RES for making Petitioners’ combinations. At best, the Reply attempts to quibble with Dr.

Keener’s opinions regarding why a POSA would *not* be motivated to make the combinations, but it still fails to articulate affirmative reasons why there would be motivation and RES. Petitioners thus fail to meet their burden.

Lastly, Petitioners submitted an expert declaration for the first time only on Reply. For the reasons set out in PO’s motion to strike (Paper 22), the declaration should be struck because it offers a panoply of new interpretations of the prior art and claim construction. But, even if it is not struck, it should be given no weight because, *first*, Petitioners’ expert, Kevin LeCroy, did not analyze the prior art or claim construction from the perspective of a POSA and, *second*, he does not qualify as a POSA under Petitioners’ own proposed definition.

For these and the reasons recited below and the POR, all claims should be upheld.

I. PETITIONERS’ ARGUMENTS REGARDING WHAT THE PRIOR ART DISCLOSES ARE MERITLESS

A. Petitioners Failed to Show Gershman Discloses Two Elements Petitioners Contend It Does

All of Petitioners’ combinations based on Gershman rely on Gershman as disclosing the “moving platform to support an unrestrained chick”

limitation,¹ but Gershman does not. It also does not disclose the additional limitations of dependent claim 3.

1. Gershman Does Not Disclose a “moving platform to support an unrestrained chick” (Grounds 1, 4, 6-7)

As a threshold claim construction matter, the Reply concedes that, as PO explained in its POR, the claimed platform must be **both** “moving” and at the same time “support[ing]” an unrestrained chick. POR, 21-22. Thus, the only question is whether Gershman discloses a platform that is both “moving” and “support[ing]” the chick simultaneously. It does not.

As Mr. LeCroy admitted at his deposition, in Gershman the chick is first placed on a **stationary** plate.² Ex. 2008, 32:25-33:6. At this point it is being supported by the plate, but the plate is not moving. As Mr. LeCroy also

¹ This limitation is recited in independent claims 1 and 9, and a similar one is recited in independent claim 6.

² Mr. LeCroy’s testimony refutes Petitioners’ argument that Gershman discloses the moving/supporting limitation because “Gershman states that ‘Chickens are placed on a **moving** [not movable] plate.’” Reply, 8. Petitioners appear to be contending that the plate is moving when the chick is placed on it, but this is incorrect because the plate is stationary when the chick is placed on it, as Mr. LeCroy admitted.

admitted, the plate then falls out from under the chick *faster* than the chick's free fall. *Id.*, 33:11-17. At the point where the chick's image is captured, it is in free fall and it is *not* on the plate. Thus, during the chick's descent, the plate is moving but not supporting the chick. The chick then lands back on the stationary plate. Ex. 2002, ¶44. Thus, the Gershman plate is either stationary and supporting the chick *or* accelerating downward and not supporting the chick—but never both moving and supporting the chick as required by all claims. Despite it being their burden, Petitioners never identified in their Petition any platform in Gershman that is both moving and supporting the chick at the same time. On Reply, Petitioners still fail to identify any actual disclosure in Gershman of a plate that is both moving and supporting the chick. Instead, Petitioners came back with an expert declaration reading into Gershman two embodiments that they newly contend show a plate that is both moving and supporting the chick. But, neither embodiment is actually disclosed in Gershman; they are just made up by Petitioners' expert.

First, Petitioners contend that in Gershman, after the chick is dropped, the platform will move back up to the starting position and, while it is moving up, the chick will be both moving and supported by the plate. But, nowhere does Gershman disclose lifting the platform upward at all, and Petitioners'

expert admitted this:

Q. Okay. Gershman, you'd agree, ***doesn't state anywhere that the moving plate will come back up*** after the drop, right?

A. ***Correct.***

Ex. 2008, 38:22-25. This “embodiment” of Gershman where the plate is lifted back upward was simply read into the reference by Petitioners’ expert, as he also admitted:

Q. Okay. So this embodiment where the chick is lifted back upwards on the plate, ***this is something that you’re reading into the Gershman reference*** based on your background and understanding. Is that fair?

[Attorney objection omitted]

A. ***That’s fair.***

Id., 39:5-12. It is improper and insufficient to use an expert to fill in gaps in the prior art like this, particularly for the first time on Reply, and Mr. LeCroy’s opinions on this front should not be considered. *Abiomed, Inc. v. Maquet Cardiovascular, LLC*, IPR2017-01204, Paper 8 at 8-12 (PTAB Oct. 23, 2017) (rejecting petitioner’s expert testimony of what a pump in one embodiment “*could include or would accommodate*” for it “is not the same as what [the reference] teaches”) (emphasis in original).

Second, Petitioners newly contend that the plate is both moving and supporting the chick at the bottom of the drop because shock absorbers at the bottom will decelerate the chick on the platform. Reply, 8. But, Gershman

does not disclose that the chick will be on the plate as the plate is stopped by the shock absorbers. Petitioners' expert is simply speculating that one could design the system in Gershman to decelerate the chick on the shock absorbers, despite the fact Gershman does not teach this.

To the contrary, the actual disclosure in Gershman shows that the chick would not be on the plate when the shock absorbers stop it because the plate drops *faster* than the chick and thus will hit the shock absorbers *before* the chick does. There is no dispute about this because Petitioners' expert admitted the plate would hit the shock absorbers before the chick would. Ex. 2008, 36:8-12. This makes sense because, as Petitioners expert also conceded, the shock absorbers absorb the shock of the falling plate. *Id.*, 36:13-20. Nowhere does Gershman disclose using the shock absorbers to decelerate the chick, as Petitioners' expert also conceded. *Id.*, 36:4-10.

Petitioners also complain that the demonstrative Dr. Keener had prepared shows a drop shaft that is higher than the one contemplated in Gershman. Petitioners' argument misses the point. The demonstrative was not intended to be to scale. It was intended to show the steps of the drop plate sexing process disclosed in Gershman.

2. Gershman Does Not Disclose “air blowing on the chick” as the Claimed “stimuli” (Ground 1; Claim 3)

Ground 1, with respect to dependent claim 3, fails for the additional

reason that Gershman does not disclose the additional limitations of claim 3.

Claim 1 recites a system that stimulates a chick to cause its wings to open, so that its image may be taken. Dependent claim 3 adds the additional limitations that the stimuli “may be one or more” of an angled conveyor, a vibrating conveyor, a strobe light, or a stream of air blowing on the chick. Petitioners argue that because claim 3 states that the stimulus “may” be one or more of the four listed stimuli, a system need not use *any* of them and still meet the claim language. Thus, they argue, Gershman meets claim 3 even if it disclosed “none of the claim 3 stimuli.” Reply, 11. Petitioners’ interpretation of claim 3 would render it superfluous and is clearly erroneous. *Wasica Finance GmbH v. Continental Automotive Systems, Inc.*, 853 F.3d 1272, 1288 n.10 (Fed. Cir. 2017) (“It is highly disfavored to construe terms in a way that renders them void, meaningless, or superfluous.”)

Petitioners also argue that at the bottom of the drop in Gershman—*after* the chick has been imaged—air is used to blow the chick off the platform and this blowing action meets dependent claim 3. Reply, 11-12. But stimuli required by claim 3 is the stimuli that causes the chick to ***open its wings for imaging***. The alleged blowing at the bottom of the drop ***occurs after imaging*** and thus cannot qualify as the stimuli for claim 3. Nothing about the blowing air disclosure in Gershman can be tied back to the limitations in claim 1, nor

do Petitioners even attempt to do so, rendering its position on claim 3 fatally flawed. Moreover, Gershman does not teach that the blowing action is conducted in a manner to open the chick's wings. Petitioner is simply reading that into the Gershman disclosure.

B. Petitioners Failed To Show Yavnai Discloses an “unrestrained chick” as Claimed (Ground 2 and 8)

The Reply and Mr. LeCroy's deposition confirm that Yavnai does not disclose a moving platform to support an “unrestrained” chick as required by all claims. Thus, Grounds 2 and 8 fail.

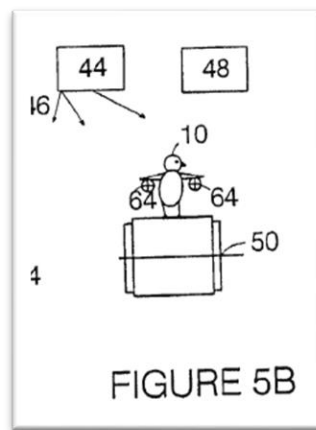
There are two remaining claim construction disputes, and both relate to Yavnai and are thus addressed below.³ The disputes are: 1) the meaning of “unrestrained chick” and 2) whether the claims require that the chick be unrestrained when it is stimulated and imaged, as PO contends.

As discussed below, Yavnai fails to disclose an “unrestrained chick” under either party's proposed constructions on the two remaining disputes. Moreover, while the Board accordingly need not reach the claim construction disputes, the Reply only confirms that PO's proposed constructions are correct.

³ Petitioners concede that PO's understanding of the claim terms relating to the “moving platform” are correct. Reply, 3.

1. Yavnai Does Not Disclose an “Unrestrained Chick” Under Either Side’s Proposed Construction of the Term

As to the first claim construction dispute, Yavnai does not disclose an unrestrained chick regardless of which party’s construction of “unrestrained chick” is adopted. A crux of the dispute between the parties has been whether the poles of Yavnai (64, below) restrain the chick.



Ex. 1005, Fig. 5B. They do, as is now confirmed by both Mr. LeCroy’s deposition testimony and Dr. Keener’s analysis. At his deposition, Mr. LeCroy confirmed that the poles in Yavnai will indeed ***prevent the chick from moving its wings freely***:

Q. Okay. Well, and you would agree, right, that ***the poles under the chick’s wings will prevent it from moving its wings freely, right?***

A. ***Correct.***

Ex. 2008, 23:9-12.

Accordingly, under Petitioners' own proposed construction of "unrestrained chick" as "a chick that is **able to freely move its wings** while on the moving platform" the chick in Yavnai is not "unrestrained."⁴ Pet., 19. Nor is it "unrestrained" under PO's proposed construction of "unrestrained chick" as a chick that "is free to move as it naturally can while on the moving platform." POR, 25.

The Board in the ID found that the Yavnai poles merely "support" the chick's wings. However, now with the benefit of expert testimony from both side's experts it is clear that the poles do not only support the chick, but they also **prevent** the wings from closing. Mr. LeCroy testified at his deposition that this is the manner in which the poles "support" the wings:

Q. And the poles keep the chick's wings open, right?

A. It appears that they're supporting the wings.

Q. And the way they support it is they keep the chick's wings open, right?

A. Correct.

Ex. 2008, 22:1-7. And it is necessary in the Yavnai system to restrain the wings because otherwise the system would not work, as Mr. LeCroy also

⁴ PO's expert Dr. Keener likewise testified that the poles will restrict, and thus restrain, the chick's movement. Ex. 2002, ¶99.

agreed. *Id.*, 22:23-23:8.

Thus, the Board need not reach the claim construction issue given the above admission by Petitioners' expert that the "poles under the chick's wings will prevent it from moving its wings freely." If the Board were to consider the claim construction issue, PO's construction of "unrestrained chick" is correct. PO submits that "unrestrained chick" is simply one that is free to move as it naturally can while on the moving platform, such as the chick shown in Figure 3 of the '124 patent. The POR explained that Figure 3 shows that no part of the chick is being restricted from its natural movement, whether laterally, forward or backward, up or down, or rotationally. Petitioners disagree and contend that the chick in Figure 3 is restrained downward by the platform and laterally by side walls. Reply, 4-5. Petitioners miss the point. The chick in Figure 3 is not "restrained" in the downward direction by the platform because it can move its body up and down as it naturally could. It would be absurd to contend that a chick must be able to break through the surface below its feet to qualify as being "unrestrained," as well as contrary to the specification. A chick on the earth's running freely is not restrained by virtue of the ground beneath its feet—it is free to move up and down, laterally and rotationally. The chick is also not restrained laterally in Figure 3 because it is free to move between the walls, which are far wider than the chick. Thus,

Figure 3 is entirely consistent with the plain meaning of “unrestrained.”

The Petition proposed the following construction: “unrestrained chick” may be understood to be “a chick that is able to freely move its wings while on the moving platform.” Pet., 19. PO disagrees with this construction because it requires *only* the wings to be free when the claim limitation refers to the chick as a whole being unrestrained. However, under Petitioners’ own construction Yavnai fails to disclose an “unrestrained chick” because, as its expert admitted, the poles under the wings in Yavnai prevent the wings from moving freely. Ex. 2008, 23:9-12.

Lastly, Petitioners in the Reply cite a new proposed construction of “unrestrained chick” based on Mr. LeCroy’s personal view that “unrestrained chick” would mean one “that is not physically held in place,” (Ex. 1008, 23), and a “restrained chick” is one “that is not allowed to move at all” (Ex. 2008, 23:24-24:1). This construction should be rejected because it is inconsistent with Petitioners’ own proposed construction in the Petition and untimely.

2. Yavnai Does Not Disclose an “Unrestrained Chick” Regardless of Whether the Claims Are Construed to Require that the Chick Be “Unrestrained” at the Point of Image Capture

Regarding the second claim construction dispute, Yavnai also fails to disclose an “unrestrained chick” regardless of whether the claims are interpreted to require that the chick be unrestrained at the point of image

capture (PO's correct construction) or that the chick can be unrestrained prior to image capture and restrained during image capture (Petitioners' incorrect construction).

Under PO's correct construction, in Yavnai, the chick is indisputably restrained at the point where the chick's image is captured. Figure 5B shows the point where the image is captured, and the poles are holding the wings open at that point, as Petitioners' expert admitted. *Id.*, 21:8-12, 23:17-20.

Moreover, even if Petitioners' (incorrect) understanding of the claims as covering systems where the chick is unrestrained prior to image capture but restrained during image capture, Yavnai still fails to disclose the "unrestrained chick" limitation. As Dr. Keener explained, from the moment the chick steps onto the conveyor (prior to image capture), the narrow side poles next to its legs will restrain it by preventing it from moving laterally and falling off. Ex. 2002, ¶99.

Petitioners dispute this by arguing that the POSA would interpret Yavnai as having walls that stop the chick from leaving the platform rather than the poles. But, nowhere are any such side walls discussed in Yavnai. The only lateral restraint mechanism disclosed in Yavnai are the poles. Petitioners also argue that the chicks jump over the poles, but this defies common sense. Reply, 17. The system simply would not work if the chicks

could jump over the poles and run away before their picture was taken. Ex. 2008, 29:24-30:4. It is improper to interpret a prior art reference in a manner than would render it inoperable, as Petitioners do. *In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984) (A proposed modification is inappropriate for an obviousness inquiry when the modification rendered the prior art reference “inoperable for its intended purpose.”).

While the Board need not reach the issue given the above, PO’s construction of the claims as requiring that the chick be unrestrained at the point of image capture is correct under basic principles of antecedent basis, and the Reply fails to show otherwise. As discussed in the POR, claim 1 recites in the first limitation a moving platform to support “***an*** unrestrained chick.” The second limitation recites at least one stimuli to cause “***the*** chick” to open its wings, referring back to the “unrestrained chick” introduced in the first limitation. Similarly, the third limitation reciting that “***the*** chick” is imaged refers back to the same unrestrained chick of the first limitation.

In Reply, Petitioners dispute that the antecedent basis for “the chick” is the “unrestrained chick,” and instead argue that the antecedent basis is the “chick” recited in the preamble. Petitioners are incorrect under Federal Circuit law. *Shoes by Firebug LLC v. Stride Rite Children’s Grp., LLC* is dispositive. 962 F.3d 1362 (Fed. Cir. 2020). There, one of the claims recited

in relevant part as follows:

1. An internally illuminated textile footwear comprises:
a footwear;
the footwear comprises a sole and an upper; ...

The patent challenger argued that the antecedent basis for “the footwear” was the preamble’s recitation of “an internally illuminate textile footwear,” attempting to limit the claim to such footwear. But, the Federal Circuit rejected this argument, emphasizing the fact that after the preamble the first limitation recited “**a** footwear,” rendering “a footwear” the antecedent basis for “the footwear” recited next in the claim. *Id.* at 1367-68 (“Notably, the first limitation of the body of claim 1 of the [] patent **reintroduces** ‘a footwear’ which ‘comprises a sole and an upper.’ The preamble, then, cannot be said to provide essential structure or necessary meaning to the claimed invention because the same element—the footwear—is independently recited in the body of the claim.”). Given the re-introduction of “a footwear” after the preamble, the Federal Circuit instructed the preamble recited “merely an intended purpose.” *Id.*

Under *Firebug*, the antecedent basis for “the chick” recited in the second and third limitations must be “an unrestrained chick,” not the chick recited in the preamble. Claim 1 clearly **re-introduces** the chick as “an unrestrained chick,” and that is thus the antecedent basis for “the chick” in the

second and third limitations. Like in *Firebug*, the preamble merely introduces an intended purpose, and does not supply any antecedent basis.

Moreover, even aside from *Firebug*, Petitioners' argument does not make sense because the term "an unrestrained chick" immediately precedes "the chick." Petitioners provide no logical reason to skip over the limitation that immediately precedes "the chick" and reach back into the preamble. And none exists.

C. Pierre Does Not Disclose "a database of images" as claimed (All Grounds)

All of Petitioners' grounds rely on Pierre disclosing, or rendering obvious, a "database of male and female wing patterns" in claim 1, and similar limitations in the other independent claims. But, as PO's database expert Dr. Karam opined, Pierre does not disclose or render obvious the claimed database. Her testimony stands entirely unrebutted: the Reply does not once mention her declaration and the Petitioners did not even depose her. And, tellingly, even though Petitioners submitted a new expert declaration, that declaration is silent on whether Pierre discloses, or renders obvious, the use of a database of images of male and female wing patterns.

It is undisputed that Pierre does not mention a database at all, much less one of both male and female wing patterns. Petitioners, however, contend via attorney argument that there must be such a database because Pierre mentions

“reference images.” But, as Dr. Karam explained, a POSA reading Pierre would understand that in Pierre the comparison is always made between an image of the chick and a *single* reference image, not a plurality of reference images. Ex. 2003, ¶47. And there would be no motivation to store that single reference image in a database because databases include a level of organization and/or structure that is not needed in Pierre. *Id.*

Moreover, Dr. Karam explained how Petitioners are misapprehending what Pierre is referring to when it mentions “reference images” one time. The POSA would understand that the *single reference image* selected to be used in a system may depend on what the particular system implementing Pierre is designed to analyze, and different systems implementing Pierre may use different reference images. Ex. 2003, ¶¶46-52. Petitioners, again, do not respond at all to Dr. Karam’s analysis in this regard.

II. PETITIONERS’ MOTIVATION AND RES ARGUMENTS FAIL

Since none of the prior art combinations disclose all elements of any claim, that is dispositive and the Board need go no further. However, a second independent reason all grounds fail is that Petitioners failed to show there would be a motivation or RES in making its proffered combinations.

A. Gershman and Pierre (Grounds 1, 4, and 6-7)

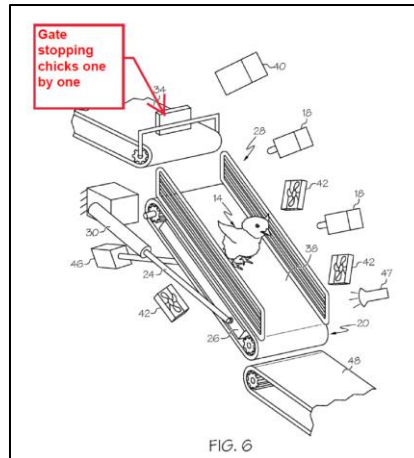
The Reply, like the Petition, fails to show how there would have been

a motivation or RES in combining Gershman with Pierre, or vice versa.

As to Grounds 1 and 7, Petitioners contend that “POR completely fails to address Petitioners’ reasons for adding the *database* of Pierre to the system of Gershman.” Reply, 18. Not so. The POR details at length how there is no database in Pierre and thus there is no database to add to Gershman. Moreover, Petitioners never set forth any motivation for adding a database of images of male and female chick images to Gershman, when Gershman does not use a plurality of chick images to make a sexing determination at all. Ex. 2002, ¶94.

As to Grounds 4 and 6, Petitioners attempt to rebut PO’s arguments for why there would be a lack of motivation and RES for combining the Gershman system with Pierre, but fails.

First, Petitioners dispute Dr. Keener’s opinion that combining Gershman with Pierre (or any other industrial system) would create unacceptable bottlenecks because it would require the conveyor to stop such that chicks could enter the drop plate one by one. Petitioners argue that the ’124 patent itself requires a full stop for chicks before they are stimulated, pointing to what the Petitioners call a “gate stopping chicks one by one” in the below demonstrative from their brief:



The problem with Petitioners' argument is that what they are pointing to is *not* a gate that stops chicks at all, but rather a *sensor* for detecting chicks. Ex. 1001, Fig. 8, 4:43-46. It does not stop them. Like Dr. Keener testified, full stops in a system are not acceptable to the POSA. Ex. 2002, ¶58; Ex. 1010, 104:21-105:19.

Second, Petitioners dispute Dr. Keener's opinion that there would be no motivation to use Gershman in the industrial system of Pierre because chick droppings would build up on Gershman's transparent plate, rendering it unable to take images from below. Petitioners assert that POSAs would know how to introduce systems for cleaning waste. Reply, 21. But, Petitioners fail to address *why* a POSA would be motivated to create a system with this additional problem of needing to continuously clean the platform, lest the sexing process break down. And there is no such motive for the reasons discussed by Dr. Keener. Ex. 2002, ¶173.

Third, Petitioners dispute Dr. Keener’s opinion that a POSA would not have a motivation or RES to create a Gershman-Pierre combination due to the issues with overloading the plate and potentially injuring chicks because “these arguments misunderstand the level of skill in the art,” citing to Mr. LeCroy. Reply, 21. This is a curious argument to make given Mr. LeCroy did not set forth or apply the correct standard for a POSA. Petitioners’ attempted attack on Dr. Keener’s experience with poultry hatcheries also fails given his extensive experience with same and lack of any motion to exclude him as an expert. *See, e.g.*, Ex. 1010, 17-19, 22-24; Ex. 2007, 1-2, 5-9.

Lastly, Petitioners state that PO “does not address the teachings of Gershman regarding a database of images.” Reply, 21. This argument is unavailing because Petitioners *expressly stated* in their Petition that “Gershman does not expressly teach that the computer includes a database of images of male and female wing patterns.” Pet., 23, 48.

B. Yavnai and Pierre (Grounds 2 and 8)

The Reply’s arguments regarding the Yavnai and Pierre combination fail for at least two fundamental reasons. *First*, the grounds rely on Pierre as disclosing a database, and it does not for the reasons discussed above. *Second*, PO and its expert pointed out that the POSA would have no motivation to use Pierre’s alleged database in Yavnai’s system because there would be no need

to do so. POR, 61. Like the Petition, the Reply fails to articulate any reason the POSA would be motivated to remove Yavnai's image processing approach and replace it with Pierre's alleged database.

C. Goodwin and Pierre (Grounds 3 and 5).

On Reply, Petitioners never address PO's argument that because the proposed combination simply "drops" the chick "off the end of the conveyor" to stimulate it to open its wings for imaging, the combination does not meet the "moving platform to support an unrestrained chick" limitation. Instead, Petitioners address only PO's arguments concerning lack of motivation to combine, and fail to rebut any of them.

PO pointed out two clear problems with the Goodwin-Pierre combination, both cutting against any motivation to combine. The first was that Petitioners' proposed combination does not yield a system that actually works to sort chicks by sex. Petitioners' proposed combination yields a system where the chicks would still need to be picked up manually and physically placed in the correct location. Petitioners only response to this problem is that "it would only be common sense to **redesign the manual troughs** of Goodwin to automatically route the male or female chicks as desired." Reply, 24. Not only is that a new argument on Reply (one notably not supported by its expert), but it also fails to provide any details about what

such a re-design would entail and why a POSA would have found it obvious.

The second problem with the Goodwin-Pierre combination is that Petitioners' proposal to simply "drop" a chick "off the end of the conveyor" would increase the risk of harm or injury to the chick. POR, 24-25. Petitioners' rebuttal is that "chicks were routinely dropped 12 inches or more during processing after hatching and can generally withstand much larger drops without injury." See Reply, 24-25 (citing Ex. 1008, ¶¶14-16, 51). But, even if it were true that chicks could be "dropped 12 inches or more" in some situations, there is no indication in the Goodwin-Pierre combination as to how large of a drop would be introduced. Moreover, it does not change the fact that there is an increased risk of injuring a chick when they are dropped off of a conveyor. As Dr. Keener pointed out, for at least these reasons, a POSA would not have been motivated to combine Goodwin with Pierre as Petitioners propose. POR, 62-64; Ex. 1002, ¶¶182-86.

III. PETITIONERS FAIL TO REBUT THE SECONDARY CONSIDERATIONS SUPPORTING NON-OBVIOUSNESS

Petitioners failed to rebut PO's proffered evidence of long-felt but unmet need and unexpected results. Dr. Keener offered affirmative evidence of both secondary factors. Tellingly, Petitioners' expert was silent on them. As Dr. Keener pointed out, Yavnai itself discussed the widely recognized need for automated chick sexing. Ex. 2002, ¶189. And, as he also opined, the '124

patent claimed invention met this need via the claimed features of a moving platform that supports an unrestrained chick, moving it efficiently through imaging and analysis. *Id.*, ¶190. These same claimed features also provided unexpected results because, as shown in the prior art, the prevailing wisdom was that one needed to restrain a chick for automated sexing. *Id.*, ¶191.

IV. PETITIONERS' EXPERT DECLARATION SHOULD BE GIVEN NO WEIGHT

Mr. LeCroy's expert declaration⁵ should be given no weight for two reasons.

First, Mr. LeCroy failed to analyze the prior art and claim terms from the perspective of a POSA, a fundamental error under basic principles of patent law. *See, e.g., Bettcher Industries, Inc. v. Bunzl USA, Inc.*, 661 F.3d 629, 640-42 (Fed. Cir. 2011) (emphasizing that prior art must be understood “as viewed by one of ordinary skill in the art”); *MultiForm Desiccants, Inc. v. Medzam, Ltd.*, 133 F.3d 1473, 1477 (Fed. Cir. 1998) (“It is the person of ordinary skill in the field of the invention through whose eyes the claims are

⁵ As detailed in PO's motion to strike, the Mr. LeCroy's declaration, and all the Reply arguments that rely on it, should be struck because it sets forth entirely new readings of the prior art and claim constructions that were not in the Petition (which presented only attorney argument). Paper 22.

construed.”). Mr. LeCroy needed to set forth the definition of a POSA, explain his understanding, and apply the perspective of the POSA to his interpretation of the prior art and claim construction. He did none of this.

Mr. LeCroy’s declaration does not even recite either party’s proposed definition of a POSA. Instead, Mr. LeCroy explains he rendered his opinions from the perspective of “a person working in the field of hatchery automation ... as of November 2015.” Ex. 1008, ¶3. But that is not the definition of a POSA proposed by either side. All of Mr. LeCroy’s opinions regarding the prior art and claim construction are thus not made from the perspective of a POSA and should be given no weight.

Second, Mr. LeCroy does not qualify as a POSA under Petitioners’ own proposed definition, which requires that the POSA “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.” Pet., 21. Nowhere does Mr. LeCroy identify any experience with image acquisition and processing techniques for automating chick assessment, nor does he state he had access to persons with such knowledge. And he admitted at his deposition that he never worked on any machine that would do chick sexing based on images of the chick; his experience is only with manual sexing done by a human. Ex. 2008, 12:19-13:25.

Mr. LeCroy's declaration should be given no weight.

XIV. CONCLUSION

PO respectfully submits that the Board should uphold the validity of the challenged claims.

CERTIFICATE OF LENGTH (37 C.F.R. §§ 42.24)

The undersigned hereby certifies that, according to the word-processing system used to prepare the foregoing document, this document has 5494 words and thus complies with the applicable word limit.

Date: April 22, 2025

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6, the undersigned hereby certify that the foregoing Patent Owner Response was served on April 22, 2025 by e-mailing copies to:

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