

Inter Partes
Review:
US Patent No.
10,806,124

**Petitioners’
Demonstratives**

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

Oral Argument: May 6, 2025

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

Instituted Claim(s)	Basis	References
1, 3	§ 103	Gershman, Pierre
1, 3	§ 103	Yavnai, Pierre
1, 6, 7	§ 103	Pierre, Goodwin
1, 6, 7	§ 103	Pierre, Gershman
2	§ 103	Pierre, Goodwin, Tao
8	§ 103	Pierre, Gershman, Tao
2, 4, 5, 9-15	§ 103	Gershman, Pierre, Tao
2, 4, 8, 9-18	§ 103	Yavnai, Pierre, Tao

USP 10,806,124: Claim 1

1. A system for determining the sex of a chick comprising:
a moving platform to support **an unrestrained chick** of a particular breed;
at least one stimuli to cause the chick to open its wings;
an image capture device to capture at least one image of the chick;
and
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, 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.

Developmental Systems

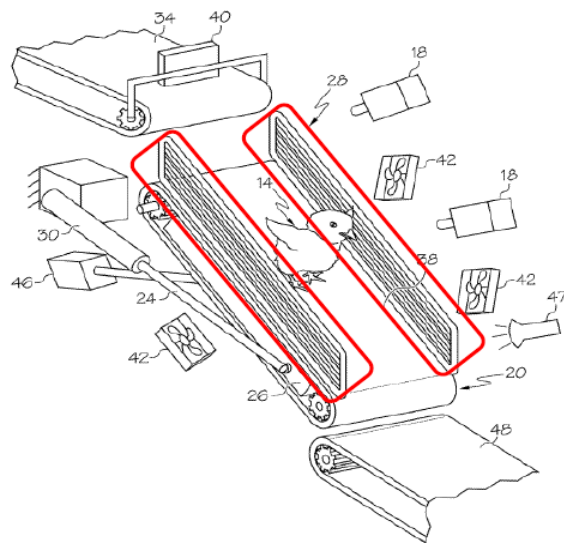
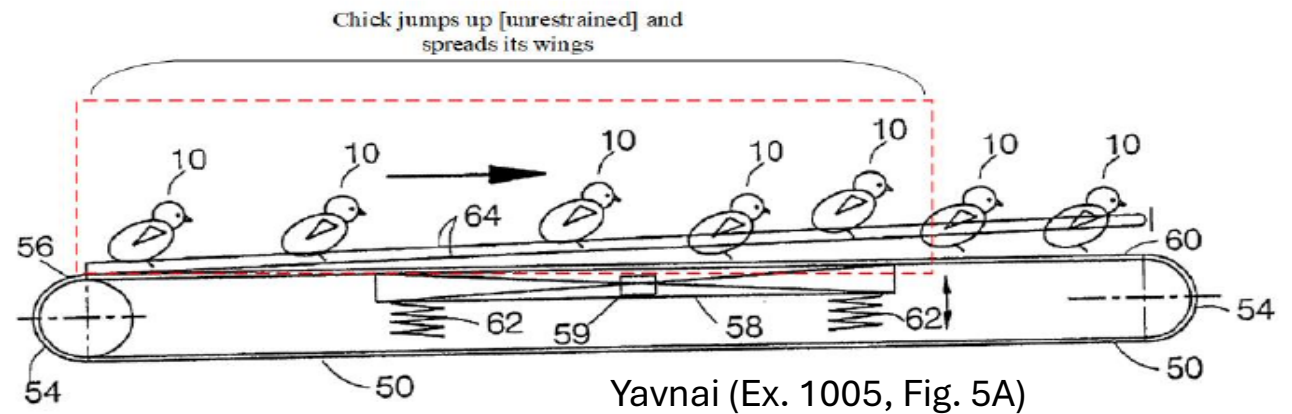


FIG. 6

'124 Patent (Ex. 1001, Fig. 6)



Yavnai (Ex. 1005, Fig. 5A)



Gershman (Ex. 1003, p. 3)

No evidence '124 patent commercialized

Q. ...is it your opinion that the -- in the subject matter claimed in the '124 patent met these unmet needs?

A. It may. You know, the -- I don't have information about -- about the commercial systems, if there are commercial systems.

... I don't know whether -- whether the commercial system itself embodies all of those elements. I don't know.

Paper 19, p. 26; Ex. 1010, pp.117-118.

Chicks Are Durable



“... chicks are more durable than people might think. Keep in mind, for example, that in nature most young birds are durable enough to fall out of a nest in a tree or bush without being injured.”

Ex 1008, ¶ 15.

Chick Transport Was Well Known

“... chicks have been previously separated by other conveyors and dividers” and “such equipment and logistics are not discussed herein.”

Ex. 1001, 3:50-53, 5:22-28; Paper 19, pp. 20-21.

“dividing chicks up so that they would form lines one at a time at any desired speed was well known and within the skill of those in the hatchery automation art by 2015.”

Ex. 1008, ¶ 21.

“I would have expected chicks to have already been divided and fed onto the plate in single file spaced apart on a conveyor.”
(discussing Gershman)

Ex. 1008, ¶ 34; Paper 19, p. 21.

Compare the Automation Declarants

Petitioners Declarant LeCroy:

- 20 years of hatchery experience
- Repairs and maintains hatchery automation

Ex. 1008, ¶¶ 6-10; Ex. 1009.

Patent Owner Declarant Keener:

- Food safety and sanitation focused
- ¼ page of 73 p. CV on chick hatchery sanitation & observation

Ex. 2007, p. 9, last ¶; Paper 19, p. 21, fn. 4.



Claim Construction



IPR2024-00595

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

9

Exhibit 1011

Petitioners: “an unrestrained chick”

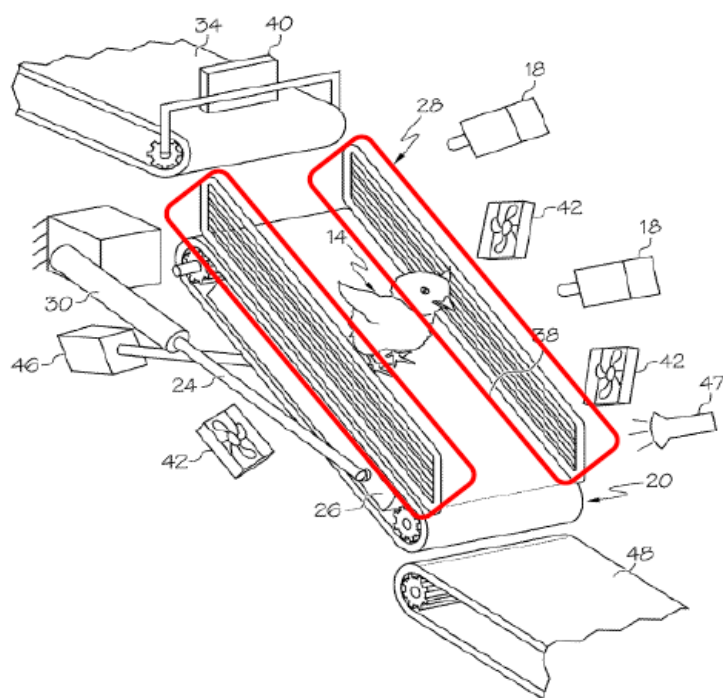


FIG. 6

‘124 Patent, Fig. 6

IPR2024-00595

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

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1. Indefinite & lacking written support.
Paper 1, p. 19, fn.2.

2. “*may* be understood to be a chick that is able to freely move its wings while on the moving platform”.

Paper 1, p. 19; Paper 19, pp. 5-6.

3. A chick that is not physically held in place.

Paper 19, p. 5; Ex 1008, ¶ 44; Paper 9, pp. 6, 12, 20-21.

Patent Owner's Varying Comments on “an unrestrained chick”

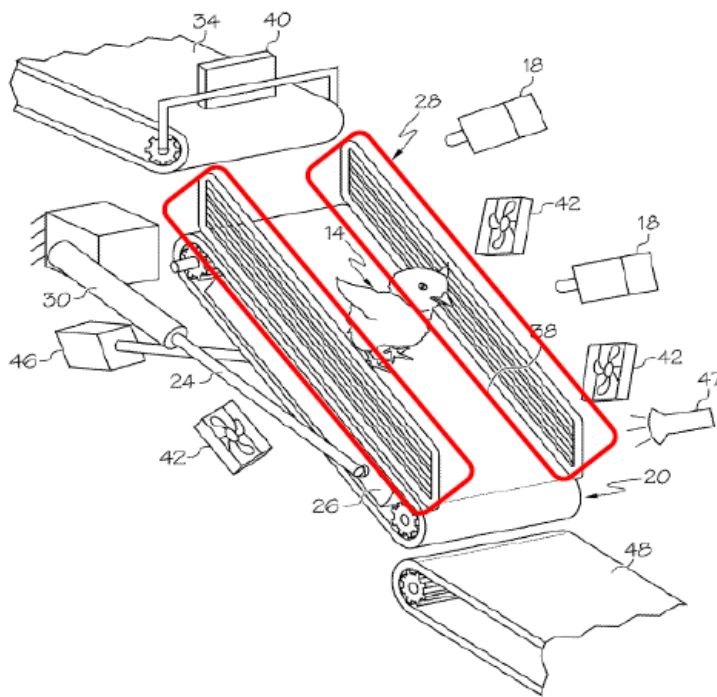


FIG. 6

'124 Patent, Fig. 6

IPR2024-00595

DEMONSTRATIVE EXHIBIT - NOT EVIDENCE

11

“No part of the chick is being restricted from its natural movement – *laterally*, forward or backward, *up or down*, or rotationally.”

Paper 16, p. 25.

“The chick is free to move as it naturally can while on the moving platform.”

Paper 16, p. 25; Paper 28, p. 11.

The '124 Patent Does Not Claim a Chick that is Unrestrained Throughout the Recited System

1. A system for determining the sex of a chick comprising:
a moving platform to support **an unrestrained chick** of a particular breed;
at least one stimuli to cause the chick to open its wings;
an image capture device to capture at least one image of the chick; and
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, 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.

The '124 Patent Does Not Claim a Chick that is Unrestrained Throughout the Recited System

6. A system for determining the health of a day old chick comprising:

a moving platform upon which **an unrestrained chick** is supported;

image capturing device to capture at least one electronic image of the chick;

computerized image processor in communication with the image capture device ...

The '124 Patent Does Not Claim a Chick that is Unrestrained Throughout the Recited System

9. A system of sorting chicks on the basis of a predetermined feature of a chick comprising:

a moving platform to support **an unrestrained chick** of a particular breed;

an image capture device positioned proximate to the moving platform to capture at least one image of the chick as it passes on the moving platform;

a computer processor in communication with the image capture device ...; and

removing means for removing a chick from the moving platform ...

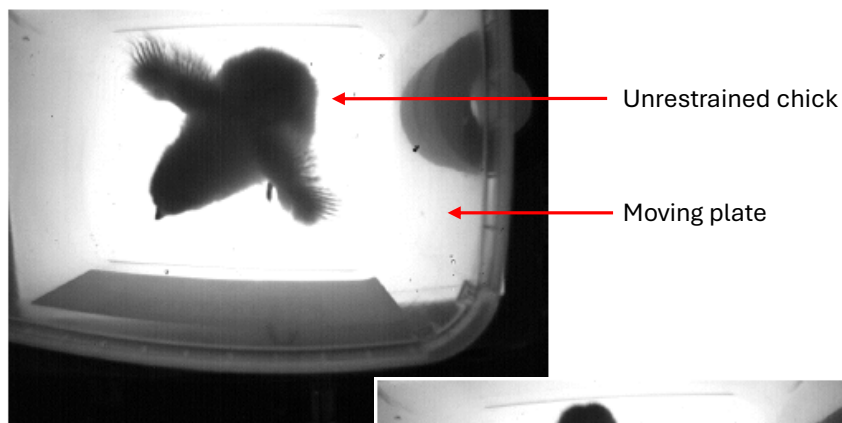
Claim 3 Limitations Are Optional

3. The system of claim 1 wherein the stimuli ***may*** be one or more of the following group: an angled conveyor, a vibrating conveyor, a strobe light, or a stream of air blowing on the chick.

“may” does not mean must or shall.

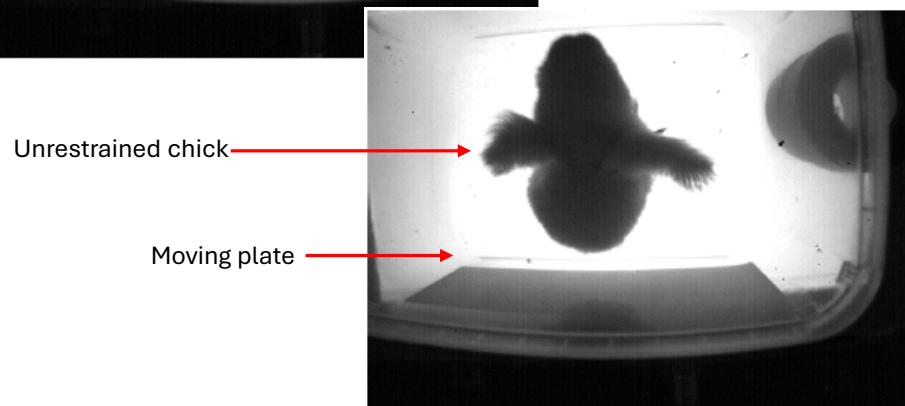
The '124 Claims are Invalid

Gershman Discloses a Moving Platform to Support an Unrestrained Chick



“Chicken [sic] are **placed on a moving plate** and are photographed during the fall.”

Paper 1, p. 9; Ex. 1003, p. 3.



The movement of the chick is not restrained.

Paper 1, p. 10.

Gershman Discloses a Moving Platform to Support an Unrestrained Chick

“Chickens were placed on plate manually and was ***pushed down*** from a height of 20 cm ***on the shock absorbers*** (Fig.3).”

Ex 1003, p. 5; EX 1008, ¶ 34; Paper 19, pp. 2, 9.

“It will be necessary only to perform upgrading ... to add nodes lighting, electrooptic unit, computer, ***moving plates with corresponding springs, ...***”

Ex. 1003, p. 4; Paper 19, p. 10.

Patent Owner wrongly argues “the [Gershman] platform is never moving and supporting a chick, as required by the claims.”

Paper 16, p. 2; Ex. 2002, ¶¶ 39-45.

Shock absorbers and springs also mean moving plate supports chick.

Paper 19, pp. 9-10; Ex. 1008, ¶¶ 28, 34.

Initial Acceleration in Gershman

“acceleration of plate must be equal 12-15 m/sec². It is **only a little more than free-fall acceleration** and easily imitated by sharp lowering his human hands.”

Ex. 1003, 3.

“...(for example, a cylinder with a flexible wheel at the end of the pusher) which will provide the **initial acceleration, a little more than g** ” [gravity]

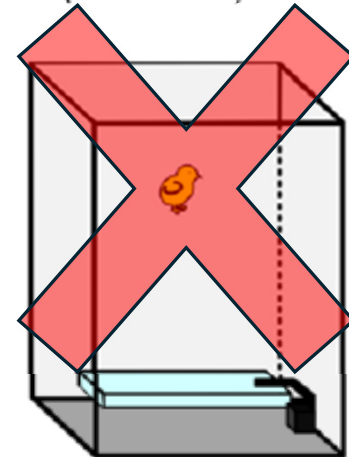
Ex. 1003, p. 5.

Dr. Keener mischaracterizes Gershman system.

Ex. 2002, ¶ 40.

Step 3

- Stationary plate
- Chick is not supported (still in free fall)



Pierre Discloses a Database of Images of Chick Wing Patterns

1. A system for determining the sex of a chick comprising: ...

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, 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.

Ex. 1001: '124 patent, claim 1

Pierre teaches a computerized process to capture images of wings and “compare the captured images to reference images recording a specific state for each animal” to deduce the sex of a chick.

Paper 1, pp. 23-24; Ex. 1004, p. 3.

The sex is determined based on “differences in plumage that are seen clearly, for example between a rooster and a hen”.

Paper 1, pp. 23-24; Ex. 1004, p. 5.

Pierre Discloses a Database of Images of Chick Wing Patterns

1. A system for determining the sex of a chick comprising: ...

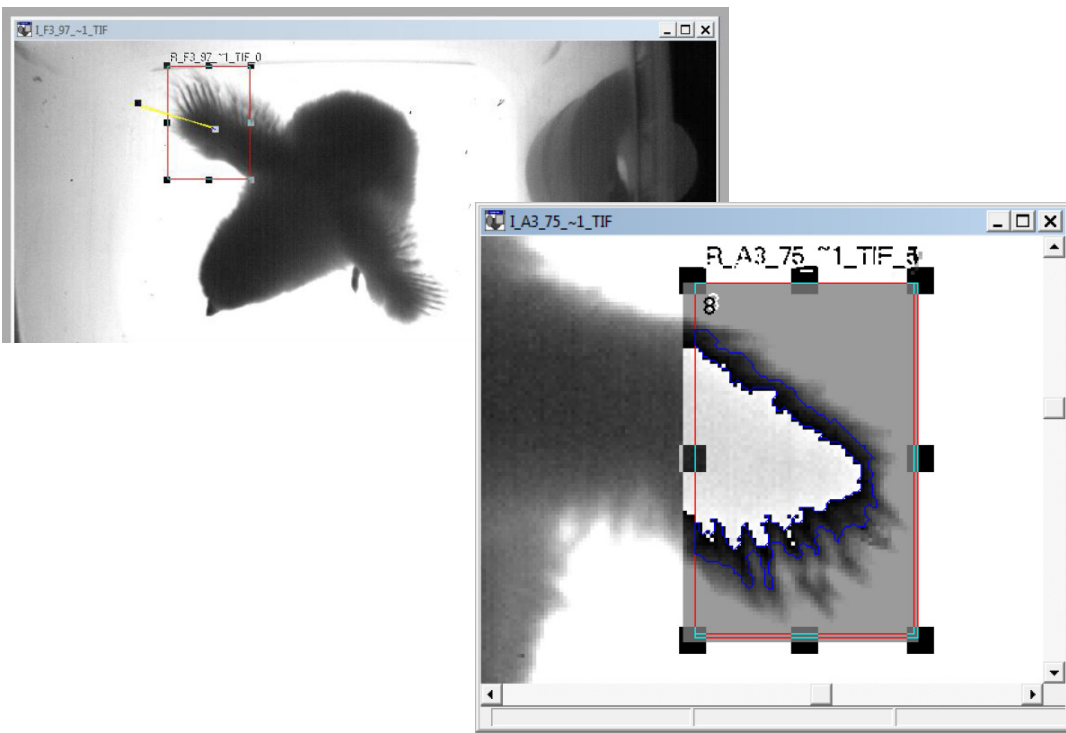
a computer processor having a database of images of male and female wing patterns for the particular breed, the computer processor in communication with the image capture device, whereby the image capture device captures at least one image of the chick and transmits it to the computer processor where the image is processed and compared to the database to determine the sex.

Ex. 1001: '124 patent, claim 1

Pierre teaches comparison with reference images to determine characteristics that exist in two or more mutually exclusive states: sex, health, genetic modification, etc.

Paper 19, p. 13; Ex. 1004, p. 3.

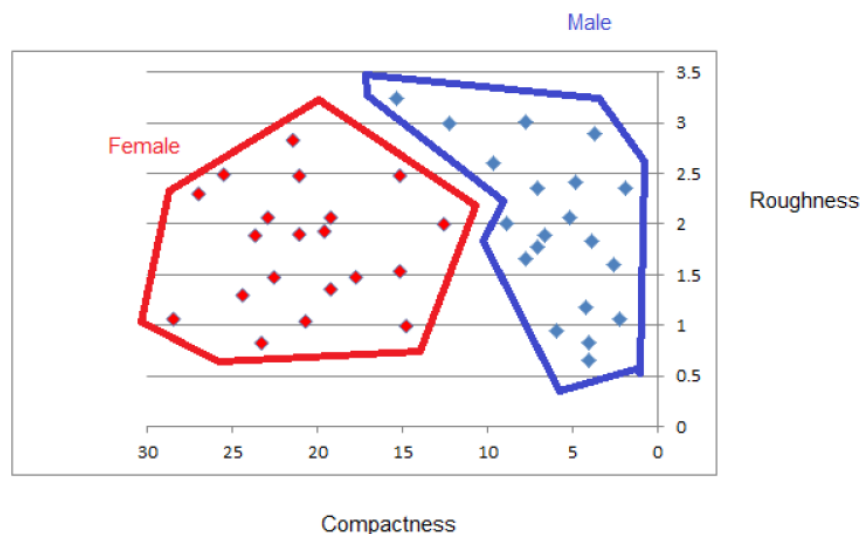
It Was Obvious to Add the Database of Pierre to Gershman's Teaching to Analyze Images of Chick Wings and Compare Analysis Results



Gershman teaches analyzing *each image* of male and female chicks to determine compactness and roughness of wings.

Paper 1, p. 23; Ex. 1003, pp. 3-4.

It Was Obvious to Add the Database of Pierre to Gershman's Teaching to Analyze Images of Chick Wings and Compare Analysis Results



Compactness and roughness are compared to the values from previous images of male and female chicks to determine the sex of a chick.

Paper 1, p. 23; Ex. 1003, p. 4.

It was obvious to store the images as reference images for comparison as taught by Pierre.

Paper 1, pp. 23-24; Paper 9, p. 18.

Gershman in View of Pierre Renders Claim 3 Obvious

1. A system for determining the sex of a chick comprising:

...

at least one stimuli to cause the chick to open its wings ...

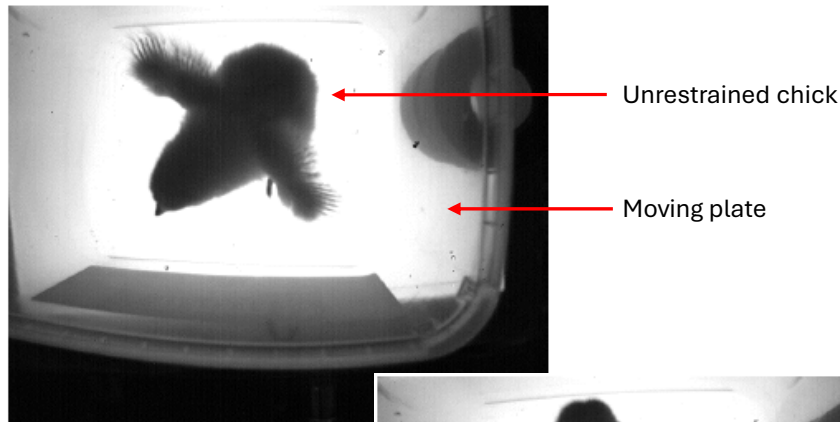
3. The system of claim 1 wherein **the stimuli may be** one or more of the following group: an angled conveyor, a vibrating conveyor, a strobe light, or **a stream of air blowing on the chick.**

Ex. 1001: '124 patent, claims 1 and 3

Gershman teaches “air ejectors for blowing chickens” with compressed air.

Paper 1, p. 25; Paper 19, p. 11; Ex. 1003, pp. 4, 6.

It Was Obvious to Add the Moving Platform of Gershman to Pierre's Teaching to Compare Images of Chick Wings

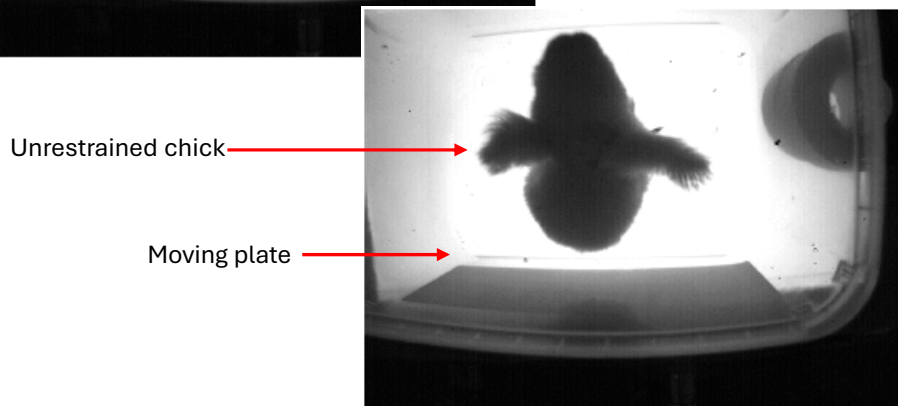


Pierre teaches placing successive chicks in a falling position to capture images of the chicks' wings.

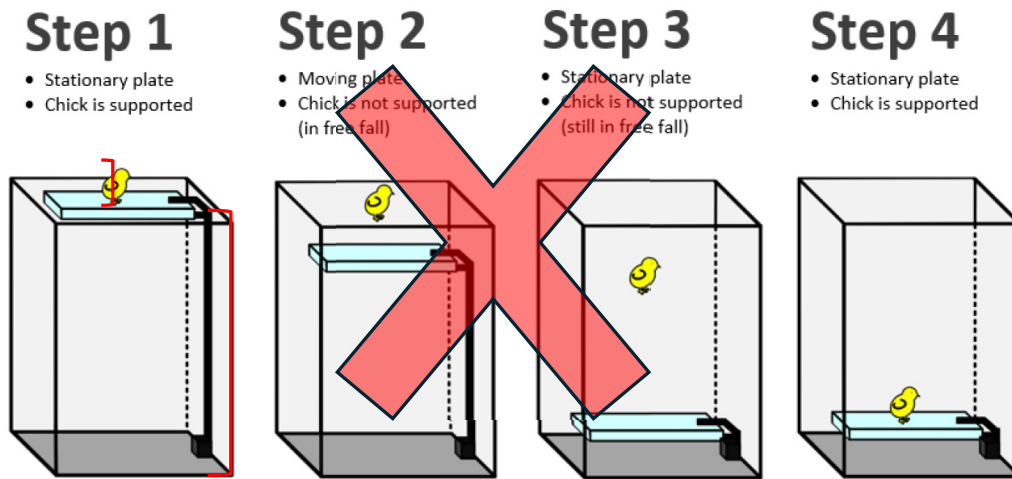
Paper 1, p. 36; Ex. 1004, p. 4.

Gershman teaches placing chicks on a moving plate and causing the chicks to fall and open their wings for imaging.

Paper 1, p. 37; Ex. 1003, p. 6.



A POSITA Would Not Have Been Discouraged from Combining Gershman and Pierre



Paper 16, p. 28.

Gershman teaches pushing a plate down from a height of 20 centimeters (8 inches) onto shock absorbers.

Paper 19, p. 9; Ex. 1003, p. 5.

Dr. Keener's diagrams are not to scale.

Paper 19, p. 9.

A POSITA Would Not Have Been Discouraged from Combining Gershman and Pierre

- It was well-known to manage chick traffic, including chick droppings, in automatic conveyor systems.

Paper 19, p. 21; Ex. 1008; ¶¶ 32, 37.

- “It should be appreciated that the chicks have been previously separated by other conveyors and dividers and are now travelling... in a single file fashion”

Paper 19, p. 21; Ex. 1001, 3:50-53.

Yavnai Discloses a Moving Platform to Support an Unrestrained Chick

Chick jumps up [unrestrained] and spreads its wings

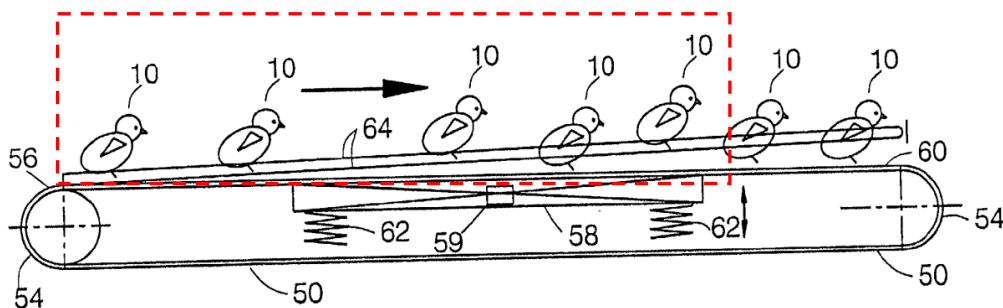


FIGURE 5A

A conveyor belt 50 vibrates and causes a chick 10 to jump up and spread its wings.

Paper 1, pp. 25-26; Ex. 1005, ¶42.

Chick is unrestrained while freely jumping.

Paper 1, p. 26.

Yavnai's chick is unrestrained when wings are supported

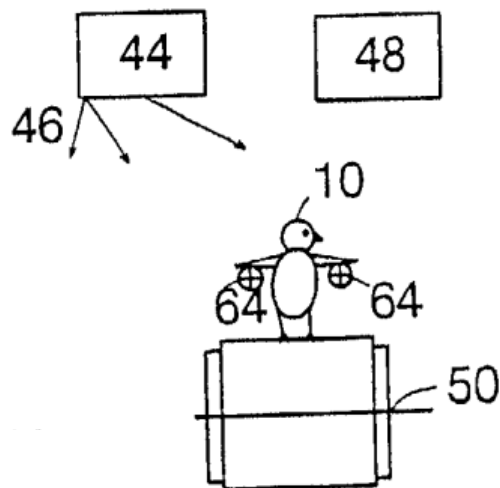


FIGURE 5B

“poles 64 **support** the spread wings” while camera 48 photographs wing tips of chick 10.

Paper 1, p. 12; Ex. 1005, ¶42.

“Yavnai ... uses the word ‘**support**’ **rather than** ‘restrain.’”

Paper 9, pp. 20-21.

Yavnai's chick is unrestrained when wings are supported - LeCroy

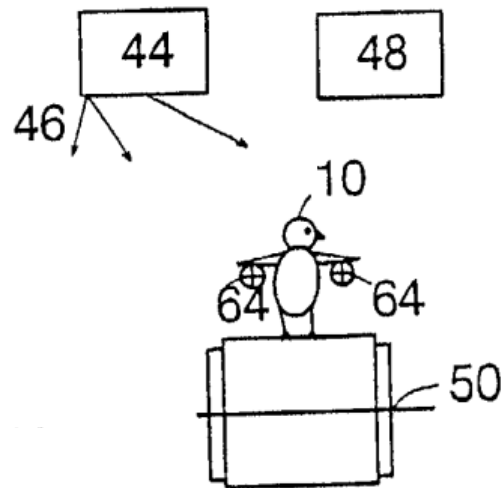


FIGURE 5B

“There's more to restraining a chick than just its wings being held out.”

EX 2008, p. 24.

“— the point at which you're saying the chick's wings are fixed on these poles, ***the bird can still move its wings forward and backwards ...*** they can still move their wings. ***The wings are not being restrained.***”

EX 2008, p. 25.

It Was Obvious to Add Pierre's Comparison With Reference Images to Yavnai's Chick Imaging System

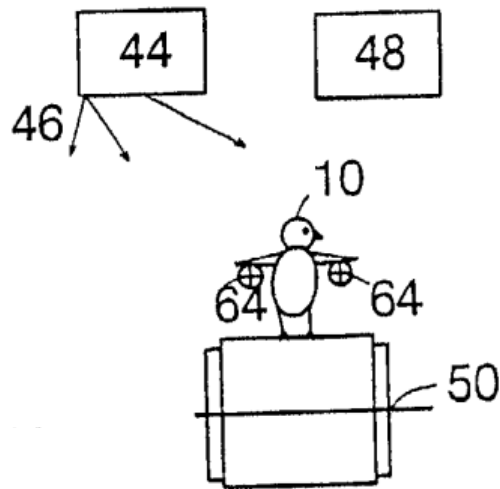


FIGURE 5B

“The image taken by camera 48 is processed and sex identification is attempted based on the sex distinguishable wing feather patterns.

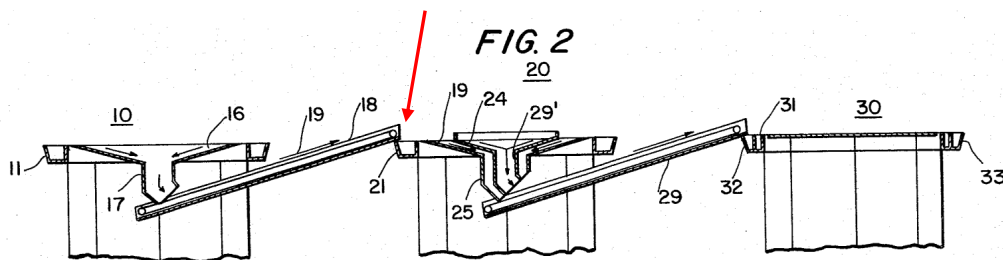
Paper 1, p. 27; Paper 19, p. 23; Ex. 1005, ¶39.

Pierre teaches sex identification based on comparison with images of chick wings.

Paper 1, pp. 11, 28; Ex. 1004, pp. 3, 4.

Goodwin Discloses a Moving Platform to Support an Unrestrained Chick

Chicks drop off
conveyor belt 18

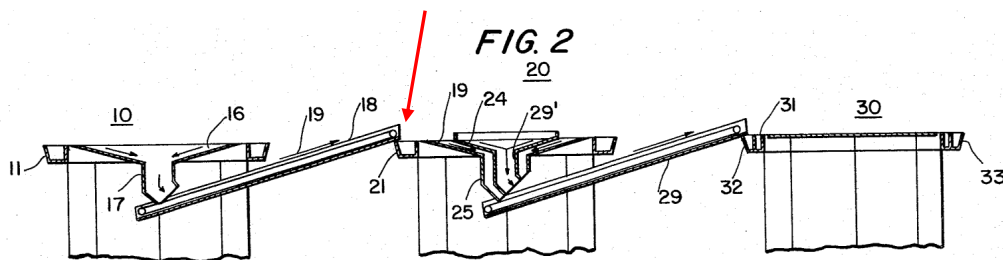


“The chicks on conveyor belt 18 are carried upward to the sexing station 20 where they drop into a rotary annular conveyor trough 21.”

Paper 1, pp. 14-15; Ex. 1007, 2:13-20.

It Was Obvious to Add Goodwin's Moving Platform to Pierre's Sexing Process

Chicks drop off
conveyor belt 18



Pierre teaches placing a chick in a falling position to capture an image of the chick's wings.

Paper 1, p. 30; Ex. 1004; p. 3.

Goodwin teaches a moving platform to transport and drop chicks for sexing for industrial processing.

Paper 1, p. 30; Ex. 1007, 2:13-20.

Patent Owner Provides No Evidence of a Nexus Between Secondary Considerations and the '124 Claims

Long-Felt but Unmet Need

- Patent Owner only offers conclusory statements about the '124 patent meeting alleged long-felt but unmet needs.

Paper 16, pp. 65-68.

- No evidence that the claimed '124 systems achieve high throughput or high accuracy or maintain chick welfare.

Paper 19, pp. 25-26.

Unexpected Results

- Patent Owner claims that the '124 claims achieve higher throughput and accuracy and reduce physical manipulation.

Paper 16, pp. 67-68.

- No evidence of any results from the claimed '124 systems.

Paper 19, pp. 26-27.