

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

PROVISUR TECHNOLOGIES, INC.,
Petitioner,

v.

WEBER FOOD TECHNOLOGY GMBH,
Patent Owner.¹

IPR2024-00235
Patent 8,529,321 B2

Before CARL M. DEFRANCO, RYAN H. FLAX, and
ROBERT J. SILVERMAN, *Administrative Patent Judges*.

DEFRANCO, *Administrative Patent Judge*.

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

¹ After the petition was filed, Patent Owner filed a notice changing its name from Weber Maschinenbau Gmbh Breidenbach to the name currently in the case caption. *See* Paper 7.

Provisur Technologies, Inc. (“Provisur”) filed a Petition requesting *inter partes* review of claims 1–6, 8, 10, and 14–16 of US 8,529,321 B2 (Ex. 1001, “the ’321 patent”). Paper 2 (“Pet.”). Weber Food Technology GmbH (“Weber”), the owner of the ’321 patent, filed a Preliminary Response. Paper 8 (“Prelim. Resp.”). Weber identifies Textor Maschinenbau GmbH, Weber, Inc., Textor, Inc., and Weber Maschinenbau GmbH Neubrandenburg as additional real parties-in-interest. Paper 5, 2. Because Provisur demonstrates a reasonable likelihood that at least independent claims 1 and 14 of the ’321 patent are unpatentable, we institute *inter partes* review of all claims as challenged in the Petition.

I. BACKGROUND

A. Related Matters

The ’321 patent is the subject of a parallel infringement action, *Provisur Technologies, Inc. v. Weber, Inc.*, No. 5-21-cv-06113 (W.D. Mo.) (“the parallel Missouri action”). See Paper 5, 2. That case began with Provisur alleging that Weber infringed Provisur’s patent, US 8,408,109 B2 (“the ’109 patent”).² Two-years later, Weber counterclaimed by alleging that Provisur infringed four of Weber’s patents, including the ’321 patent challenged here, as well as US 9,457,487 B2, US 10,467,013 B2, and US 11,331,823 B2.³ All five of the patents in the parallel Missouri action—Provisur’s ’109 patent and Weber’s ’321, ’487, ’013, and ’823 patents—are

² The district court’s docket sheet was consulted to determine the status of the parallel Missouri action. The parties are reminded to update the Board on any material events occurring in that case. See 37 C.F.R. § 42.8(a)(3).

³ Provisur diligently filed the instant Petition within three-months of Weber’s counterclaims and within days of learning the claims that Weber was asserting. See Pet. 81.

the subject of proceedings before the Office. For instance, the '487 patent is the subject of a recently instituted *inter partes* review proceeding. *See* IPR2024-00224, Papers 8, 10. Moreover, the '109 patent was the subject of a Rehearing Decision from the Director, who vacated the Board's Final Written Decision and remanded the case to the Board for further proceedings. *See* IPR2022-00599, Paper 74, 6. Thus, the Board is very familiar with the parties, the patents, and the technology at issue in the parallel Missouri action.

B. The '321 Patent

The '321 patent describes an apparatus for separating at least a portion of a fat cover from a flesh component of a meat product in an automated process. Ex. 1001, Abstract, 2:19–37. A meat product generally comprises three components: rind, fat, and flesh. *Id.* at 1:14–17. To remove portions of the fat cover, i.e., the rind and fat, conventional systems measure the thickness of the fat cover with an insertable probe that detects changes in brightness of different tissues. *Id.* at 1:18–36. In these conventional systems, the “meat product is damaged by the insertion of the sensor,” particularly when one or more sensors have to be “inserted at multiple sites of the product for a reliable” fat thickness determination. *Id.*

In contrast, the non-contact measurement device in the '321 patent determines “the thickness of a fat cover of a meat product without damaging the meat product.” *Id.* at 1:37–2:5 (describing exemplary optical non-contact measurements using light detectors and a CCD camera); *see also id.* at 4:18–5:6. The measured thickness of the fat cover is then “transferred from the evaluation unit of the measurement device” to a control unit of a cutting device. *Id.* at 5:24–28. This control unit “determines the anatomy of

the meat product [] from the measured result” and then selects a stored “travel profile”—which are “product dependent or anatomy-dependent” profiles that “effect a change in the setting of the cutter bar in dependence on the feed of the meat product [] to be processed.” *Id.* at 5:24–43. In this way, the cutting device includes a cutting blade that “is variable relative to a product support” such that the “cutting blade position can be adapted to differently thick fat covers or the thickness can be set” for separation of a portion of the fat cover. *Id.* at 2:46–52.

C. The Challenged Claims

Of the challenged claims, claims 1 and 14 are independent. Claim 1, reproduced below (with Provisur’s added sub-numbering), is illustrative of the challenged claims:

[1.Pre] An apparatus for separation of a fat cover of a meat product from a flesh component of the meat product, comprising:

[1.A] *a measurement device for automatic determination of the thickness of the fat cover*, wherein the determination of the thickness of the fat cover takes place in a contactless manner; and

[1.B] cutting device coupled to the measurement device for automatic separation of the fat cover from the flesh component *in dependence on the thickness determined by the measurement device*, wherein the cutting device comprises:

[1.C] a cutting blade whose position is variable relative to a product support; and

[1.D] a control unit for control of the position of the cutting blade in dependence on the thickness determined by the measurement device,

[1.E] wherein at least one travel profile is stored in the control unit in accordance with which the position of the cutting blade relative to the product support is to be set in dependence on a product feed.

Ex. 1001, 6:21–42 (emphasis added for limitations in dispute).

D. The Asserted Challenges

Claims Challenged	35 U.S.C. §	Basis
1–6, 8, 10, 14–16	102	Young ⁴
1–6, 8, 10, 14–16	103(a)	Young, Norrie ⁵
1–6, 8, 10, 14–16	103(a)	Johnson, ⁶ Belk ⁷

II. ANALYSIS

A. Level of Ordinary Skill in the Art

Provisur proposes that one of ordinary skill in the art typically would have had:

(1) a bachelor’s degree (or equivalent) in mechanical engineering (or a similar field) and at least two years of experience working as an engineer (or similar role) on food processing and/or packaging systems (or in a similar field); or (2) at least seven years of experience working as an engineer (or similar role) on food processing and/or packaging systems (or in a similar field).

Pet. 12.

Weber does not contest Provisur’s framing of the level of ordinary skill in the art. Because Provisur’s proposed definition is consistent with the level of skill described in the ’321 patent and the prior art of record, we adopt it here for purposes of institution.

B. Claim Construction

Provisur asserts that the claim terms should be construed “according to their plain and ordinary meanings as understood by [one of ordinary skill in the art] in view of the specification and prosecution history” and that “[n]o terms require an explicit construction to resolve the unpatentability

⁴ US 5,514,032, issued May 7, 1996 (Ex. 1004, “Young”).

⁵ US 4,979,269, issued Dec. 25, 1990 (Ex. 1005, “Norrie”).

⁶ US 6,929,540 B2, issued Aug. 16, 2005 (Ex. 1006, “Johnson”).

⁷ US 6,198,834 B1, issued Mar. 6, 2001 (Ex. 1007, “Belk”).

controversy between the parties here.” Pet. 13. Weber appears to agree, its counsel stating in the parallel Missouri action that “most of [Weber’s] patent claims are plain and ordinary . . . [t]hey’re not difficult or complex claims or claim terms.” Ex. 1028, 5.

There being no dispute, we need not expressly construe any claim terms at this stage, because we can decide the threshold question of institution without further construction. *See Nidec Motor Corp. v. Zhongshan Broad Ocean Motor Co.*, 868 F.3d 1013, 1017 (Fed. Cir. 2017) (approving Board decision not to construe claim language where the construction is not material to the dispute).

C. Discretionary Denial Under 35 U.S.C. § 314(a)

Weber requests that we deny institution under 35 U.S.C. § 314(a) due to the advanced state of the parallel Missouri action. *See* Prelim. Resp. 6–17. Provisur disputes that discretionary denial is warranted (Pet. 73–77), but nonetheless submits a *Sotera* stipulation (Ex. 1029) in an effort to resolve the issue.⁸ In light of Provisur’s *Sotera* stipulation, we will not discretionarily deny institution under § 314(a). *See* Director Memorandum, *Interim Procedure for Discretionary Denials in AIA-Post Grant Proceedings With Parallel District Court Litigation*, U.S. PATENT AND TRADEMARK OFFICE (June 21, 2022), at 3, 7.

⁸ In the future, Provisur is advised to notify us of the filing of a *Sotera* stipulation via a separate *notice* rather than simply an updated exhibit list (i.e., Paper 9).

D. Grounds 1 and 2—Provisur’s Young-Based Challenges

1. Anticipation by Young

We begin with Provisur’s showing of how Young anticipates all the elements of independent claims 1 and 14. *See* Pet. 26–42, 46–49. In support, Provisur provides a detailed claim chart, reproduced below, mapping each of the recited elements of claims 1 and 14 to express disclosures in Young. *Id.* at 27.

<u>Claim Language</u>	<u>Exemplary Young Disclosures</u>
Apparatus for separation	Loin separation apparatus 10
Measurement device	Imaging system 190 including several cameras such as fat line camera 198
Cutting device/cutting blade	Knife assembly 100 with U-shaped blade 121 and/or scribe saw assembly 50
Control unit	Controller 172, motion controller 180
Variable position relative to product feed	Vertical axes of motion above platen 20
Travel profile	Cutting profile (generated in controller 172)

In addition, Provisur breaks claim 1 down into four parts—elements [1.A], [1.B], [1.C], [1.D], and [1.E]—and provides annotated figures from Young to show exactly where and how Young teaches each of those claim elements. *Id.* at 27–42. Provisur provides a similar breakdown for claim 14. *See id.* at 46–49. Provisur also provides credible (and unrebutted) testimony from its expert to show what one skilled in the art would have understood from reading Young, including how Young determines the amount of fat cover to be separated from the flesh component of the meat product. *See* Ex. 1003 ¶¶ 100–132, 155–160.

In response, Weber argues that Young’s measurement device lacks the claimed “determination of the thickness of the fat cover,” and, thus, Young’s

cutting blade is not positioned “in dependence on the thickness determined by the measurement device,” as also claimed. *See* Prelim. Resp. 17–20. According to Weber, “Young does not determine the thickness of the fat cover,” and instead “simply identifies the line between the fat cover and the lean meat (fat/lean separation line) and follows this line during cutting.” *Id.* at 19 (citing Ex. 1004, 18:32–46). Weber further explains that “Young is agnostic to the thickness of the fat, and will separate at the junction point between the tissues regardless of the fat thickness.” *Id.*; *see also id.* at 20 (“Notably absent is any disclosure of the height, length, width, or any other dimensions for the fat cover. And again, this makes sense because Young’s system cuts along a specific junction line (fat/lean separation line) regardless of fat cover thickness.”).

We disagree with Weber’s position, at least on the current record. Instead, we find that Provisur presents sufficient evidence that Young anticipates *all* elements of independent claims 1 and 14, including the disputed limitation requiring “automatic determination of the thickness of the fat cover.” In particular, Young’s imaging system 190 includes multiple cameras, including top plan camera 196, end view camera 197, and fat line camera 198, as well as controller 172 and real-time image processor 194. Ex. 1004, 17:34–59, 18:46–56, Figs. 2, 13. As described by Young, top plan camera 196 is primarily used to obtain “physical dimensions and characteristics” of the meat product, end view camera 197 is primarily used to determine the “height” of meat product and “to create a clear delineation along the top edge of the end” of the meat product, whereas fat line camera 198 is primarily used to determine the fat/lean separation line of the meat product. *See id.* at 17:59–18:39. Those disclosures by Young clearly

contemplate determining specific dimensions of the meat product, and not simply identifying the fat/lean separation line, as Weber suggests. *See* Prelim. Resp. 19.

To determine the “thickness” of the fat cover, Young’s imaging system has image processing routine 240, which “generates a fat/lean separation line and *an edge line . . . representing the outer surface of the pork side proximate the fat/lean line*” and uses those lines to calculate “the height, width, and length of the [meat product].” Ex. 1004, 23:12–25, 24:10–22. As part of routine 240, controller 172 uses that information to set the cutting profile of knife assembly 100 “so that the assembly follows *a fixed distance from the separation line to provide the optimum fat cover* for the loin.” *Id.* at 18:35–39 (emphasis added). Notably, according to Young, the “fixed distance” represents the “desired” thickness of fat that remains on the meat, after cutting, and “sufficiently keeps the loin from drying out, but doesn’t make the loin look too fat.” *Id.* at 20:60–66; *see also id.* at 10:39–42 (“Through control of the knife blade along several axes, assembly 100 preferably produces an optimum separation between loin and belly, with a *desired* fat covering left on the loin.” (emphasis added)). Young’s disclosure that image processing routine 240 determines a “fixed distance” from the loin/fat separation line at which to cut the meat product undoubtedly corresponds to the claimed “determination of the thickness of the fat cover . . . in a contactless manner.” *See* Ex. 1003 ¶¶ 104–112. Indeed, Young discloses specific dimensions for the desired optimum fat cover to remain on the meat—“a fixed distance (preferably 0.1 inch) from the fat/lean separation line 6.” Ex. 1004, 20:55–63.

Moreover, Young’s clear disclosure of determining the desired thickness of fat cover is essentially no different than the challenged ’321 patent’s description, which states:

The shape of the fat cover thus determined is in turn transferred from the evaluation unit of the measurement device 18 to the control unit of the cutting device 10 so that it can *set the height of the cutter bar in dependence on the determined shape of the fat cover . . . so that a fat cover layer of a desired thickness remains at the flesh component* of the meat product 12.

Ex. 1001, 5:50–59 (emphasis added). Given the similarities between the descriptions in Young and the ’321 patent of determining the desired thickness of fat cover and setting the dimension of the cutting blade according to that determined thickness, we find that Provisur presents sufficient evidence that Young discloses the only disputed limitation of the claims. Weber does not dispute Young’s disclosure of the remaining elements of claims 1 and 14, and after reviewing Provisur’s showing, we find that Young also discloses those undisputed claim elements. *See* Pet. 27–29, 33–41.

Thus, based on the current record, we find that Provisur is reasonably likely to prove that claims 1 and 14 are anticipated by Young.

2. Obviousness Based on Young and Norrie

As an alternative, Provisur asserts that, to the extent Young does not disclose the “determination of the thickness of the fat cover,” Norrie teaches that claim limitation, and, thus, claims 1 and 14 would have been obvious over the combination of Norrie with Young. *See* Pet. 51–54. According to Provisur, Norrie teaches “a device for sensing the *thickness* of back fat on the loin portion [of a meat product] between the conveyor and the lean portion of the loin.” *Id.* at 52 (citing Ex. 1005, Abstract). With that teaching

in mind, Provisur contends that one of ordinary skill in the art would have deemed it obvious to combine the teachings of Norrie and Young because: (1) both are directed to “an automated loin separation system” that overcomes “the problems associated with manual loin separation processes;” and (2) Young expressly recognizes the advantage of modifying its system to include “additional imaging and motion functionality,” such as that taught by Norrie. *Id.* at 52–53 (citing Ex. 1003 ¶¶ 175–177).

We agree. Like Young, Norrie is also directed to a method and apparatus for butchering meat. *See* Ex. 1005, Abstract. In particular, Norrie teaches a camera/light source 54 that “functions to observe and sense the *thickness of the portion of fat* the loin lying lowermost on the conveyor as it approaches the knife blade” such that “[t]he knife blade is then adjusted automatically.” *Id.* at 3:51–59 (emphasis added); *see also id.* at 4:27–37 (explaining that “camera 54 will observe the *thickness of fat* on the underside of the loin” and “send appropriate fat signals to the computer,” which, in turn, “will signal the blade solenoid 41 so as to adjust the position of the blade 34.” (emphasis added)). And, as Provisur correctly notes, one of ordinary skill in the art would have been drawn to Norrie’s teaching of sensing the thickness of the fat on the loin because Young contemplates modifying its imaging system to achieve “greater control, customization, and consistency, as well as to optimize yield and reduce waste.” Pet. 53 (citing Ex. 1004, 2:43–50, 20:17–24).

Indeed, Young expressly foresaw the advantage of such modifications: “additional imaging and motion functionality may be included to provide more sophisticated profiles using the preferred scribe saw and knife assemblies” and “the design of control system 170 may be

modified to incorporate different accessory components.” Ex. 1004, 20:17–24. As such, Provisur’s expert testifies that one of ordinary skill in the art reasonably would have known that Norrie’s camera could be included as an accessory in Young’s imaging system for optimizing the determination of the desired fat thickness of the meat product. *See* Ex. 1003 ¶¶ 176–177. On the current record, we find that testimony credible.

We have considered Weber’s arguments to the contrary, but do not find them persuasive. *See* Prelim. Resp. 20–25. Like it did for Provisur’s anticipation ground, Weber contends that, for this obviousness ground, “[Provisur cannot satisfy its burden, particularly its heightened burden to show compelling merits.” *Id.* at 23. In doing so, Weber faults Provisur for failing to provide sufficient detail regarding “how Young is modified by Norrie.” *Id.* at 20, 22. But, as Provisur’s expert credibly explains, one of ordinary skill in the art, reading Young, immediately would have been drawn to Norrie’s fat measurement device given Young’s explicit foresight of adding imaging functionality in order to further optimize separation of the fat from the loin, and that such an addition would have been nothing more than a “routine change of components” and a “routine software modification,” as Young acknowledges. Ex. 1003 ¶ 177. On the current record, that reasoning provides more than enough detail as to how and why one of ordinary skill in the art would have modified Young’s imaging system with Norrie’s teaching.

Nor are we persuaded by Weber’s argument that Young “teaches away” from the proposed combination with Norrie. Prelim. Resp. 23. According to Weber, Young “uses information from its three cameras” to dynamically determine a fixed distance from the loin that provides the

optimum fat cover, whereas “Norrie discloses a much cruder imaging system that implements a single camera and lamp” for measuring fat thickness on the underside of the loin. *Id.* at 24. As such, Weber surmises that “supplanting” Young’s dynamically-controlled, three-camera imaging system with Norrie’s single-camera system “would create the same waste and inefficiencies expressly disparaged by Young and by which Young’s disclosures sought to correct.” *Id.* at 24–25 (citing Ex. 1004, 2:18–42, 10:40–43).

We disagree for the simple reason that Weber’s argument fails to appreciate the full extent of Provisur’s proposed combination. Rather than swapping out Young’s *entire* imaging system for Norrie’s single camera, Provisur proposes incorporating Norrie’s camera into Young’s system as an additional data point for deriving the desired thickness of fat cover that Young’s controller already determines. *See* Pet. 53 (“A POSA looking at Young would have been directly led to Norrie to achieve *additional* imaging functionality, such as Norrie’s thickness sensing. . . . A POSA would have been able to apply the determination of thickness by the camera and controller taught in Norrie *in the context of Young’s camera.*”).⁹ Indeed, Young itself expressly recognizes as much. *See* Ex. 1004, 20:17–24. Thus, we reject the notion that Young teaches away from the addition of Norrie’s

⁹ In addition, Provisur proposes that an ordinarily skilled artisan could implement Norrie’s camera 54 and computer 64 into Young’s system by simply “changing the cameras and connecting the components” to Young’s imaging system and that “[t]his simple modification would have been well within the abilities of a [person of ordinary skill in the art].” Pet. 53–54 (citing Ex. 1003 ¶¶ 177–179).

imaging system to Young’s imaging system for determining the thickness of fat cover on a meat product.

Weber does not otherwise dispute Provisur’s challenge to independent claims 1 and 14 as obvious over the proposed combination of Young and Norrie. *See* Prelim. Resp. 20–25. Based on the current record, we find that Provisur provides sufficient proof that Young and Norrie disclose all the elements of independent claims 1 and 14 and that one of ordinary skill in the art would have found it obvious to combine their respective teachings. *See* Pet. 51–54 (citing Ex. 1003 ¶¶ 167–179). Thus, we find that Provisur is reasonably likely to prove that claims 1 and 14 are unpatentable as obvious over the combined teachings of Young and Norrie.

3. The Dependent Claims

Weber offers no response at this preliminary stage to Provisur’s challenge of dependent claims 2–6, 8, 10, 15, and 16 as being anticipated by Young and/or obvious over Young and Norrie, except presumably to rely on its argument against Provisur’s challenge of base claims 1 and 14. *See* Pet. 42–46, 49–50 (challenging dependent claims); Prelim. Resp. 17–25 (addressing only claim 1). Because Provisur provides anticipation and obviousness challenges that satisfy the “reasonable likelihood” threshold with respect to the challenged independent claims, we do not address the dependent claims in the absence of any rebuttal from Weber. Further analysis is best left for trial after full development of the record.

E. Ground 3—Obviousness Over Johnson and Belk

Provisur also challenges claims 1–4, 6, 9, 10, 14–16, and 22 as being rendered obvious by Johnson and Belk. *See* Pet. 54–73. In response, Weber asserts that we should “deny institution” under 35 U.S.C. § 325(d) because

Johnson and Belk are “cumulative” of “the applicant admitted prior art (AAPA) [in] the ’321 Patent” and “the numerous camera-based fat measurement techniques considered by the Examiner during prosecution.” Prelim. Resp. 25, 27–28. Even assuming Weber is correct on this point, Weber never asserts that § 325(d) denial is appropriate with respect to Provisur’s other challenges under Grounds 1 and 2, on which we find compelling justification to institute, as discussed above. Thus, without more, we reject the notion that Provisur’s Petition should be denied under § 325(d).

We also reject Weber’s assertion that Provisur’s proposed combination of Johnson and Belk “is grounded in impermissible hindsight.” Prelim. Resp. 29. This is because Weber’s argument that Provisur “uses the precise blueprint of the ’321 patent” is merely conclusory and without meaningful evidentiary support. *Id.* at 30. On the other hand, Provisur provides unrebutted expert testimony as to why one of ordinary skill in the art would have combined Johnson and Belk. *See* Pet. 62–66; Ex. 1003 ¶¶ 190–195. Nonetheless, because we find sufficient merit to institute trial based on Grounds 1 and 2 (as discussed above), we need not further address this challenge at this stage. Further analysis is best left for trial after full development of the record.

III. CONCLUSION

For the above reasons, we determine that Provisur demonstrates a reasonable likelihood of unpatentability with respect to at least claims 1 and 14 of the ’321 patent. And because “[e]qual treatment of claims and grounds for institution purposes has pervasive support in *SAS*,” we institute on all the claims as challenged in the Petition. *See* 37 C.F.R. § 42.108(a),

(c); *PGS Geophysical AS v. Iancu*, 891 F.3d 1354, 1360 (Fed. Cir. 2018) (citing *SAS Inst., Inc. v. Iancu*, 138 S. Ct. 1348, 1359–60 (2018)).

IV. ORDER

Accordingly, it is:

ORDERED that an *inter partes* review of claims 1–6, 8, 10, and 14–16 of the '321 patent is *instituted*; and

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

For PETITIONER:

Michael G. Babbitt
Sara T. Horton
Ren-how H. Harn
Mitchell M. Feldhake
WILLKIE FARR & GALLAGHER LLP
mbabbitt@willkie.com
shorton@willkie.com
rharn@willkie.com
mfeldhake@willkie.com
ProvisurPTAB@willkie.com

For PATENT OWNER:

Adam P. Seitz
Paul R. Hart
Nathan S. Byers
Adam M. Sandwell
ERISE IP, P.A.
adam.seitz@eriseip.com
paul.hart@eriseip.com
nathan.byers@eriseip.com
adam.sandwell@eriseip.com
PTAB@eriseip.com