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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/636,254	11/02/2012	Brent Cator	388.0005P371	4381
25534	7590	02/14/2018	EXAMINER	
CAHN & SAMUELS LLP 1100 17th STREET NW SUITE 401 WASHINGTON, DC 20036			LEFF, STEVEN N	
			ART UNIT	PAPER NUMBER
			1792	
			MAIL DATE	DELIVERY MODE
			02/14/2018	PAPER

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte BRENT CATOR, JAMES L. MARSDEN,
and JOHN VATRI

Appeal 2017-005151
Application 13/636,254
Technology Center 1700

Before DONNA M. PRAISS, JULIA HEANEY, and
MICHAEL G. MCMANUS, *Administrative Patent Judges*.

PRAISS, *Administrative Patent Judge*.

DECISION ON APPEAL¹

Appellants² appeal under 35 U.S.C. § 134(a) from the Examiner's final decision to reject claims 1 and 4–20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

¹ In explaining our decision, we make reference to the Specification filed Sept. 20, 2012 (“Spec.”), the Final Office Action entered Dec. 3, 2015 (“Final Act.”), the Appeal Brief filed May 2, 2016 (“App. Br.”), the Examiner’s Answer entered Dec. 20, 2016 (“Ans.”), the Reply Brief filed Feb. 13, 2017 (“Reply Br.”), the Declarations of James L. Marsden, Ph.D. dated May 7, 2015 (“Marsden May Decl.”) and September 16, 2015 (“Marsden Sept. Decl.”).

² BJM Food Technologies Inc. is identified as the real party in interest. App. Br. 1.

BACKGROUND

The subject matter on appeal relates to a method for decontaminating carcasses using flame decontamination whereby carcasses are subjected to temperatures produced by a direct flame source to achieve surface pasteurization. Spec. 1:9–11. Claim 1 is reproduced below from the Claims Appendix of the Appeal Brief (disputed limitation italicized):

1. A method for surface pasteurization of a beef carcass, consisting essentially of the steps of:

conveying a beef carcass through a chamber comprising a flame decontamination source; and

subjecting a surface of the beef carcass to a temperature generated from the flame decontamination source *to achieve surface pasteurization of the beef carcass by at least a 4.7 Log CFU/cm² reduction in bacterial contamination* for aseptic fabrication of a food product from the beef carcass.

Claim 16 is the other independent claim on appeal. Claim 16 is similar to claim 1, but recites “comprising” rather than “consisting essentially of” and additionally recites that the decontamination source comprises “natural gas, methane, propane, or butane” as well as “a temperature of 2800°F to 5300°F (1537°C to 2927°C)” and “a period of from 5 seconds to 20 seconds.”

REJECTIONS ON APPEAL

1. Claims 1, 6, 7, 9–11, 14, and 15 stand rejected under 35 U.S.C. § 102(b) as anticipated by Jönsson³ as evidenced by Beale.⁴ Ans. 2; Final Act. 2.

2. Claims 1, 4, and 6–15 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Beale in view of Jönsson. Ans. 4; Final Act. 4.

3. Claims 5 and 16–20 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Beale in view of Jönsson and Georges.⁵ Ans. 6; Final Act. 7.

ANALYSIS

Rejection 1

For the reasons stated on pages 2–4 of the Final Office Action and pages 2–3 of the Answer, the Examiner determines that claims 1, 6, 7, 9–11, 14, and 15 are unpatentable under 35 U.S.C. § 102(b) as anticipated by Jönsson as evidenced by Beale.

In the Appeal Brief, Appellants argue the rejection of claims 1, 6, 7, 9–11, 14, and 15 as a group. App. Br. 7–12. In accordance with 37 C.F.R. § 41.37(c)(1)(iv), we select claim 1 as representative of the group and claims 6, 7, 9–11, 14, and 15 will stand or fall with claim 1. Appellants argue that the Examiner’s findings are in error because “Jonsson quite clearly employs hot air exclusively for surface pasteurization of a carcass and specifically excludes the use of flame for that purpose.” *Id.* at 7 (citing Jönsson 2:4,

³ Jönsson, US 2,978,738, iss. Apr. 11, 1961.

⁴ Beale, GB 7473, pub. Mar. 27, 1903.

⁵ Georges, US 4,674,152, iss. June 23, 1987.

2:59–62, and 2:70). Appellants also contend “Beale’s sophomoric claim of total microbial elimination resulting from brief exposure to flame is a scientific fallacy that is debunked both by Dr. Marsden in his Declarations of record and in the prior art of record.” *Id.* at 9. Appellants quote paragraph 16 of the May 7, 2015, Marsden Declaration defining the term “pasteurization” to mean “[a]ny process, treatment, or combination thereof, that is applied to food to reduce the most resistant microorganism(s) of public health significance to a level that is not likely to present a public health risk under normal conditions of distribution and storage.” *Id.* (emphasis omitted). Appellants additionally quote other publications that refer to reduced bacteria counts and assert that these quotes “establish[] that Beale’s overstated lethality contention is scientifically erroneous and that it would not be adopted by a person of ordinary skill in the food processing art.” *Id.* at 9–10.

According to Appellants, neither Jönsson nor Beale teaches the claimed “quantum of bacterial reduction” and Beale has no teaching of pathogenic reduction from the use of flame as Beale expressly teaches the use of antiseptic solutions to kill the germs on a carcass followed by flame treatment. *Id.* at 11. Appellants assert that Jönsson’s post-pasteurization use of a flame for de-hairing creates a contamination problem because the flame shortens hairs resulting in more hairs being burnt away because they will not be pulled out by a beat and scrape means. *Id.* at 10 (citing Abele, US 4,512,058, 1:27–29). Appellants further contend that the addition of hot air pasteurization taught by Jönsson would “materially affect” the claimed invention and that Jönsson cannot be reasonably interpreted to dispense with the hot air pasteurization step. *Id.* at 10–12.

The Examiner responds that Jönsson explicitly teaches applying an open flame to a carcass, and specifically a beef carcass. Ans. 10 (citing Jönsson 1:22–23, 3:21–25). The Examiner concedes that Jönsson is silent as to the level of surface pasteurization achieved, but finds that Jönsson’s application of the open flame to the surface of the skin would further kill any organisms because “Beale specifically teaches rapidly passing a flame over the surface of [a] carcass kills any organisms since no putrefactive organism can withstand even the momentary application of such a flame thus destroying all microscopic life.” *Id.* at 10–11 (citing Beale 3:23–30). Regarding the pathogen reduction due to the use of an open flame, the Examiner finds that “all microscopic life” disclosed by Beale includes bacterial contamination. *Id.* at 11. Regarding the asserted greater volume of hair residue, the Examiner notes that Jönsson’s flame processing step would be expected to achieve the claimed reduction of bacterial contamination in view of Beale’s teaching. *Id.* Regarding the Marsden Declaration, the Examiner finds that it merely affirms that the claimed invention functions as intended and provides no objective evidence, including whether the same open flame application taught by Jönsson and Beale would not result in removal of contaminants. *Id.* at 13.

In the Reply Brief, Appellants assert that Jönsson’s open flame treatment is only for dehairing and is specifically rejected for surface treatment as Jönsson teaches that “the flame should not in any way take part in the surface treatment proper.” Reply Br. 1 (quoting Jönsson 2:4). Appellants reiterate that dehairing after carcass cleaning produces a greater volume of hair residue than desirable. *Id.* at 2. Appellants further contend that there is no need for dehairing beef carcasses because the hides have

already been removed, therefore Jönsson's flame dehairing is not applicable to beef carcass processing. *Id.* at 3 (citing Marsden Sept. Decl. ¶ 4).

Appellants' arguments are not persuasive of reversible error by the Examiner because the Examiner's findings are supported by the preponderance of the evidence in this appeal record. Jönsson explicitly teaches that its method "is applicable to all kinds of animals to be slaughtered" including "cattle" which is specifically identified. Jönsson 1:18–22. Appellants do not dispute that Jönsson's method includes a step of burning with an open flame. Jönsson 1:67–2:5. That Jönsson teaches the burning step is located in the postchamber of the convection oven and separate from Jönsson's hot air step does not distinguish Jönsson's method from that recited in claim 1. Claim 1 merely requires "conveying a beef carcass through a chamber comprising a flame decontamination source." The fact that Jönsson teaches that burning with the open flame "should not in any way take part in the surface treatment proper" does not negate Jönsson's teaching in the same sentence that "burning with an open flame must be effected only during a few seconds, preferably 3 to 5 seconds." Jönsson 2:1–5. The cited record on appeal indicates the burning step taught by Jönsson is sufficient to sterilize to destroy all microscopic life on a carcass, thus achieving a level of reduction in bacterial contamination required by the claim. Beale 3:23–30.

"[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992). "[A]nticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim." *In re King*, 801 F.2d 1324, 1326 (Fed. Cir. 1986)

(citing *Lindemann Maschinenfabrik GMBH v. Am. Hoist & Derrick Co.*, 730 F.2d 1452, 1457 (Fed. Cir. 1984)). “[A]bsence from the reference of any claimed element negates anticipation.” *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 1571 (Fed. Cir. 1986).

“It is well settled that a prior art reference may anticipate when the claim limitations not expressly found in that reference are nonetheless inherent in it. ‘Under the principles of inherency, if the prior art necessarily functions in accordance with, or includes, the claimed limitations, it anticipates.’” *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1349 (Fed. Cir. 2002) (citations omitted). “Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” *In re Robertson*, 169 F.3d 743, 745 (Fed. Cir. 1999) (citations omitted).

Once a prima facie case of anticipation has been established, the burden shifts to the Appellant to prove that the prior art product does not necessarily or inherently possess the characteristics of the claimed product. *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977) (“Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product.”).

Appellants’ evidence that burning hairs leads to residue and contamination does not adequately rebut the Examiner’s finding that Jönsson teaches a method for treating a beef carcass that includes the step of subjecting the surface of the carcass to a temperature generated from a flame that inherently meets the reduction of bacterial contamination required by

the claim as evidenced by Beale for a number of reasons. First, Appellants assert that in beef carcass processing “the hides have already been removed” (Reply Br. 3), therefore Jönsson’s flame step would not result in the “singeing residue” and contamination that Appellants assert would have introduced contaminants to a carcass surface from using Jönsson’s process (App. Br. 10; Reply Br. 2). Moreover, Appellants’ argument that skinned carcasses such as beef would not have been subjected to treatment with a flame is also not consistent with the teachings of Beale which describes skinned and cleaned carcasses as being subjected to flame passing rapidly over the surfaces to sterilize and destroy any germs. Beale 3:18–30.

Second, Appellants’ citations to the Marsden May Declaration and other quoted references in support of the contention that Beale’s disclosure of total microbial elimination from flame exposure is “debunked” (App. Br. 9) also are not persuasive of error because the evidence merely provides descriptions of reducing bacterial contamination without regard to any method let alone Beale’s method which the citations allegedly “debunk.” Appellants’ additional argument that “Beale has no teaching of a specified pathogenic reduction from the use of flame” (App. Br. 11) is not supported by the record because Beale states that such flame treatment “destroy[s] all microscopic life on it.” Beale 3:29–30.

Appellants’ argument that “consisting essentially of” recited in claim 1 means that the claim precludes additional steps to achieve the function of the flame as that would materially affect the invention of claim 1 is not persuasive of error because Appellants have not shown that the process of Jönsson would not achieve the same function of reducing bacterial contamination. The claim term “consisting essentially of” is used to

indicate, for example, that “the invention necessarily includes the listed ingredients and is open to unlisted ingredients that do not materially affect the basic and novel properties of the invention.” *PPG Indus., Inc. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1354 (Fed. Cir. 1998). Appellant bears the burden of: (1) showing the basic and novel characteristics of their claimed invention, and (2) establishing how those characteristics would be materially changed by any allegedly excluded component of an applied reference. *See In re DeLajarte*, 337 F.2d 870, 873 74 (CCPA 1964). At most, Appellants argue that the reduction in bacterial contamination by Jönsson’s process would not be total, i.e. the extent to which Beale discloses flame treatment eliminates microscopic organisms.

On this record, because Appellants have not identified reversible error in the Examiner’s rejection of claim 1, we affirm the Examiner’s rejection of claim 1 as anticipated by Jönsson as evidenced by Beale. *See In re Jung*, 637 F.3d 1356, 1365 (Fed. Cir. 2011) (“[I]t has long been the Board’s practice to require an applicant to identify the alleged error in the [E]xaminer’s rejections”).

Rejection 2

For the reasons stated on pages 4–7 of the Final Office Action and pages 4–6 of the Answer, the Examiner determines that claims 1, 4, and 6–15 are unpatentable under 35 U.S.C. § 103(a) as unpatentable over Beale in view of Jönsson.

In the Appeal Brief, Appellants argue the rejection of claims 1, 4, and 6–15 as a group. App. Br. 12–13. In accordance with 37 C.F.R. § 41.37(c)(1)(iv), we select claim 1 as representative of the group and claims 4 and 6–15 will stand or fall with claim 1. Appellants argue that the

Examiner erred in combining the cited references because a skilled artisan would not have been motivated to modify Beale using Jönsson in view of Jönsson’s teaching against using flame for surface pasteurization and requiring hot-air pasteurization. App. Br. 12. Appellants further argue that the combination fails to teach the quantitative titer of bacterial contamination reduction required by claim 1. *Id.*

The Examiner responds that Jönsson explicitly teaches the application of the open flame to the surface of the carcass after the hot air treatment, which would further kill any organisms in view of the teachings of Beale regarding flame treatment. Ans. 10–11 (citing Jönsson 3:21–25). Regarding the quantitative amount, the Examiner finds that Beale teaches that all microscopic life is destroyed by the momentary application of flame. *Id.* at 11 (citing Beale 3:23–30).

In the Reply Brief, Appellants maintain that the cited references are silent as to the level of reduction in bacterial contamination. Reply Br. 3. Appellants also argue that flame dehairing after carcass cleaning introduces singeing residue (*id.* at 2) and is not applicable to beef carcass processing (*id.* at 3).

Appellants’ arguments are not persuasive of reversible error by the Examiner because the rejection is based on the teachings of Beale and modified by treating an animal carcass that is a beef carcass as taught by Jönsson. Final Act. 5. “The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. . . . Rather, the test is what the combined teachings of those references would have suggested to those of ordinary skill in the art.” *In re Keller*, 642 F.2d 413, 425 (CCPA 1981); *see also In re Sneed*, 710 F.2d

1544, 1550 (Fed. Cir. 1983) (“[I]t is not necessary that the inventions of the references be physically combinable to render obvious the invention under review.”); *In re Nievelt*, 482 F.2d 965, 968 (CCPA 1973) (“Combining the teachings of references does not involve an ability to combine their specific structures.”). Rather, “if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 417 (2007).

As discussed above in connection with the anticipation rejection, we are not persuaded by Appellants that the Examiner erred in finding that the level of reduction in bacterial contamination required by claim 1 is not met by the teachings of Beale. Likewise, we also are not persuaded that the Examiner erred in finding that both Jönsson and Beale disclose treating an animal carcass with an open flame. As discussed above, Appellants assert that in beef carcass processing “the hides have already been removed” (Reply Br. 3), therefore Jönsson’s flame step would not result in the “singeing residue” and “surface debris/contamination” that Appellants assert would have introduced contaminants to a carcass surface from using Jönsson’s process (App. Br. 12; Reply Br. 2). Moreover, Appellants’ argument that skinned carcasses such as beef would not have been subjected to treatment with a flame is also not consistent with the teachings of Beale which describes skinned and cleaned carcasses as being subjected to flame passing rapidly over the surfaces to sterilize and destroy any germs. Beale 3:18–30.

On this record, because Appellants have not identified reversible error in the Examiner's rejection, we affirm the Examiner's rejection of claims 1, 4, and 6–15 as unpatentable over Beale in view of Jönsson.

Rejection 3

For the reasons stated on pages 7–10 of the Final Office Action and pages 6–10 of the Answer, the Examiner determines that claims 5 and 16–20 are unpatentable under 35 U.S.C. § 103(a) over Beale in view of Jönsson and Georges.

In the Appeal Brief, Appellants argue the rejection of claims 5 and 16–20 as a group. App. Br. 13–14. In accordance with 37 C.F.R. § 41.37(c)(1)(iv), we select claim 16 as representative of the group and claims 5 and 17–20 will stand or fall with claim 16. Appellants argue that the specific conditions, time, and quantities recited in claim 16 are not observed in any of the cited prior art references and that a skilled artisan would not have been motivated to modify Jönsson “in a manner that would impair its utility by jettisoning the hot air pasteurization step and substituting the Beale flame (a second flame exposure step) therefor.” *Id.* at 13.

The Examiner responds that Jönsson discloses a time of 5 seconds and that the only difference between the combination of Beale with Jönsson is the specific temperature of the flame and Georges teaches application of a gas flame to a carcass has a temperature of 4,000 °F. Ans. 12. The Examiner further finds that it would have been obvious to optimize the operational parameters of the flame temperature to achieve the desired amount of reduction of bacteria to reduce the duration of the high temperature treatment in order to prevent the destruction and alteration of

the active principals and the organic and organoleptic properties of the product. *Id.*

In the Reply Brief, Appellants maintain that the cited references are silent as to the level of reduction in bacterial contamination. Reply Br. 3. Appellants also argue that flame dehairing after carcass cleaning introduces singeing residue (*id.* at 2) and is not applicable to beef carcass processing (*id.* at 3).

Appellants' arguments are not persuasive of reversible error by the Examiner, because "[a] statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim." 37 C.F.R. § 41.37(c)(1)(vii). In addition, we are not persuaded of error in the Examiner's combination of Beale and Jönsson for the same reasons discussed above in connection with claim 1.

Based on the cited record in this Appeal, we affirm the Examiner's rejection of claims 5 and 16–20 as unpatentable over Beale in view of Jönsson and Georges.

CONCLUSION

We AFFIRM all of the Examiner's rejections of claims 1 and 4–20.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED