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EXAMINER
STULII, VERA

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAY DAVID PARKER and BROCK AARON ZENTZ

Appeal 2019-005794
Application 15/220,165
Technology Center 1700

Before LINDA M. GAUDETTE, KAREN M. HASTINGS, and JAMES C. HOUSEL, *Administrative Patent Judges.*

HOUSEL, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[1] appeals from the Examiner's decision to reject claims 1 and 4–18. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.[2]

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[1] We use the word Appellant to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as Cargill, Incorporated. Appeal Brief ("Appeal Br.") filed March 4, 2019, at 3.

[2] This Decision also cites to the Specification ("Spec.") filed July 26, 2016, the Examiner's Answer ("Ans.") dated May 24, 2019, and the Reply Brief ("Reply Br.") filed July 23, 2019.

CLAIMED SUBJECT MATTER

The invention relates to a process for the preservation of ground meat by application of high pressure. Spec. ¶ 2.

Claim 1, reproduced below from the Claims Appendix to the Appeal Brief, is illustrative of the claimed subject matter:

> 1. A process for preserving fresh ground meat comprising the steps of:
>
> a) packaging fresh ground meat in a sealed package;
>
> b) placing the packaged fresh ground meat in a pressurization vessel and closing the vessel;
>
> c) pressurizing the pressurization vessel containing the packaged fresh ground meat to an elevated pressure of about 60,000 psi to about 115,000 psi pressure so the packaged fresh ground meat is placed under the elevated pressure;
>
> d) maintaining the elevated pressure on the packaged fresh ground meat for a time of from about 30 to about 300 seconds;
>
> e) then reducing the pressure on the packaged fresh ground meat to ambient pressure; and
>
> f) removing the packaged fresh ground meat from the pressurization vessel,
>
> wherein the packaged fresh ground meat is at a temperature from about 30° to about 45°F throughout all of steps a)–f).

REFERENCES

The Examiner relies on the following prior art:

Name	Reference	Date
Yuan et al. ("Yuan")	US 2003/0170356 A1	Sept. 11, 2003
Meyer	WO 2009/003040 A1	Dec. 31, 2008

REJECTIONS

The Examiner maintains, and Appellant requests our review of, the following rejections under 35 U.S.C. § 103(a):

1. Claims 1, 4–6, and 10–18 as unpatentable over Meyer; and
2. Claims 7–9 as unpatentable over Meyer in view of Yuan.

The Examiner also provisionally rejects claims 1 and 4–18 on the ground of nonstatutory obviousness-type double patenting over claims 1–12 of copending U.S. Patent Application No. 15/362,326. However, because the copending application is now abandoned, this provisional rejection is moot.

OPINION

We review the appealed rejections for error based upon the issues Appellant identifies, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential) (cited with approval in *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 examiner's rejections."). After considering the argued claims and each of Appellant's arguments, we are not persuaded of reversible error in the appealed rejections. We offer the following for emphasis only.

For purposes of this appeal, to the extent that the claims on appeal are separately argued, we will address them separately consistent with 37 C.F.R. § 41.37(c)(1)(vii).

Rejection 1: Obviousness over Meyer

Appellant argues the claims subject to this rejection as a group. In accordance with 37 C.F.R. § 41.37(c)(1)(iv) (2018), we select claim 1 as representative; claims 4–6 and 10–18 stand or fall with claim 1.

The Examiner finds that Meyer discloses a process for sterilizing various meat products, such as raw ground beef, by pressurizing the meat products to an elevated pressure of at least 250 mPa for a period of at least 180 seconds. Ans. 5–6. More particularly, the Examiner finds that Meyer discloses a process comprising steps substantially as recited in claim 1. *Id.* at 5. The Examiner further finds that Meyer teaches applying pressures up to 350 mPa and maintaining a temperature of 0°C during the process. *Id.* at 6, 7, 9. Finding that Meyer also teaches that the pressure application time is dependent on the type of meat, the temperature, and the pressure, the Examiner concludes that it would have been obvious to vary the time, temperature, and pressure based on the type of meat and the initial level of product contamination. *Id.* at 8. With regard to the limitation of claim 1 requiring "fresh" ground meat, the Examiner finds that Appellant defines "fresh" as it relates to ground meat products as having a temperature of 35–42°F. *Id.* at 8. Although the Examiner acknowledges that Meyer teaches freezing the product to an initial temperature of less than or equal to -2°C prior to pressurization, the Examiner finds that Meyer teaches an example of pressurization of raw ground beef contaminated with Salmonella was effective at -30°C, -20°C, and 0°C. *Id.* at 9. The Examiner, therefore,

concludes that Meyer's pressurization treatment would have been expected to be effective either at or below -2ºC or above 0ºC. *Id.* The Examiner also concludes that the slight difference in the temperature of Meyer's and Appellant's meat products would not impart any patentable distinction to the pressurization process absent evidence of criticality or unexpected results. *Id.*

Appellant argues that Meyer requires frozen, rather than fresh, treated materia. Appeal Br. 10. Appellant asserts that Meyer's products are not just cold, but must be in a physical state of having ice crystals. *Id.* Appellant also asserts that each of Meyer's embodiments requires frozen products, at least during the first pressurization treatment. *Id.* at 11–13; Reply Br. 2–4. Moreover, Appellant contends that modification of Meyer's process to arrive at the process of claim 1 is not a mere optimization of temperature because the modification would require changing the initial physical state of the material, i.e., frozen, to a state that is not permitted by Meyer, i.e., fresh. Appeal Br. 13–14. Appellant also contends that such a modification to Meyer "is not a mere exercise in 'common sense' or 'ordinary creativity'" because it would be contrary to Meyer's principle of operation. *Id.* at 14 (citation omitted). Further, Appellant contends that such a modification "is not a mere 'result effective variable'" because Meyer "does not recognize temperature as a result-effective variable" and "one would not attempt to optimize temperature outside of the permitted range of the Meyer disclosure." *Id.* at 14–15 (citation omitted).

Appellant's arguments are not persuasive of reversible error because Meyer discloses operating the pressurization treatment at a temperature within the range recited in claim 1. Claim 1 recites that the packaged fresh

ground meat is at a temperature of from about 30° to about 45°F. Although claim 1 recites "fresh ground meat" and the Specification teaches that "fresh" ground meat products have a temperature of 35–42°F, claim 1 permits the temperature of the "fresh" ground meat to be below freezing, i.e., 30°F or -1°C. As the Examiner finds, and Appellant does not dispute, Meyer discloses performing the process at a temperature up to -2°C, and even teaches an embodiment wherein raw ground beef contaminated with Salmonella is pressured treated at 0°C (or 32°F). Thus, Meyer broadly discloses operating the pressurization process at temperatures (-1°C and 0°C) close or within the temperature range recited in claim 1. Moreover, the Examiner finds, and Appellant does not dispute, that Meyer discloses that the pressurization treatment of contaminated ground beef successfully sterilized the beef at operating temperatures of -30°C, -20°C, and 0°C. As such, as the Examiner notes, Meyer's pressurization treatment performs equally well at temperatures close to and within the range recited in claim 1. *See E.I. DuPont de Nemours & Co. v. Synvina C.V.*, 904 F.3d 996, 1006 (Fed. Cir. 2018) ("[A] *prima facie* case of obviousness typically exists when the ranges of a claimed composition overlap the ranges disclosed in the prior art." (quoting *In re Peterson*, 315 F.3d 1325, 1329 (Fed. Cir. 2003))).

Given these facts, although Appellant urges that Meyer's teaching that the product must be frozen during the pressurization treatment, a preponderance of the evidence reasonably establishes that the ordinary artisan would not have expected any difference in performance between fresh and frozen ground meat products at temperatures within the range of claim 1. Appellant has not directed our attention to any evidence of record demonstrating otherwise, such as unexpected results. As such, a

preponderance of the evidence supports the Examiner's reasoned position that it would have been prima facie obvious to preserve, under elevated pressure, fresh ground meat at a temperature that overlaps the claimed range.[3]

Accordingly, we sustain the Examiner's obviousness rejection of claims 1, 4–6, and 10–18 over Meyer.

Rejection 2: Obviousness over Meyer and Yuan

The Examiner acknowledges that Meyer fails to disclose a headspace over the packaged meat comprising an oxygen displaced gas environment comprising a gas selected from CO_2, CO, N_2, N_2O, H_2, Ne, Ar, Kr, Xe, and mixtures thereof, as recited in claims 7–9. Ans. 10–11. However, the Examiner finds that Yuan teaches a method of high pressure treating a food substance including flushing the substance with one or more process gases selected from CO_2, CO, N_2, N_2O, H_2, Ne, Ar, Kr, and Xe and sealing the substance in a storage container so as to retain the substance in a controlled atmospheric environment that includes the selected process gases. *Id.* The Examiner further finds that Yuan teaches that control of the amount and type of gases in the enclosed environment enhances the biocidal efficacy of the high pressure treatment as well as ensuring desirable sensory qualities of the substance are retained during storage. *Id.* at 11. Therefore, the Examiner concludes that it would have been obvious to have modified Meyer's process to employ a headspace over the meat product including one or more process gases selected from CO_2, CO, N_2, N_2O, H_2, Ne, Ar, Kr, and Xe in order to enhance the biocidal efficacy of Meyer's high pressure sterilization

[3] This conclusion is the same as reached by the Board in Appeal No. 2016-004963, dated May 26, 2016, on the same issue.

treatment as well as retain desirable sensory qualities of the product during storage as suggested by Yuan. *Id.*

Appellant argues that Yuan does not provide a teaching that would motivate a change to Meyer's process to meet the claims. Appeal Br. 15. Appellant notes that Yuan broadly describes high pressure treatment of a food substance at pressures of about 50 mPa to about 10,000 mPa and temperatures from cooled to heated (about -300°C to about 150°C). *Id.* at 15–16. However, Appellant contends that Yuan is so general in its description of process parameters that it does not provide a teaching that would motivate a modification to Meyer's process, in particular to preserve fresh ground meat at a temperature from about 30°F to about 45°F during the pressurization process. *Id.* at 16.

Appellant's arguments are not persuasive of reversible error because Appellant fails to address the Examiner's rejection, i.e., the Examiner's findings regarding Yuan and the obviousness conclusion based thereon. In addition, as discussed above, Appellant has not identified any deficiencies in the Examiner's findings and conclusions regarding Meyer, as it relates to claim 1. Nonetheless, we note that Yuan discloses that the food substance may be fresh produce and meats, and specifically teaches examples utilizing pressures of 70,000 psi for time periods between 2–5 minutes at a temperature of about 10°C for treating samples. Yuan ¶¶ 19, 33.

Accordingly, we sustain the Examiner's obviousness rejection of claims 7–9 over the combination of Meyer and Yuan.

CONCLUSION

Upon consideration of the record and for the reasons set forth above and in the Examiner's Answer, the Examiner's decision to reject claims 1

and 4–18 under 35 U.S.C. § 103(a) as unpatentable over Meyer, alone or in view of Yuan, is *affirmed*.

DECISION SUMMARY

In summary:

Claims Rejected	**35 U.S.C. §**	**Reference(s)/Basis**	**Affirmed**	**Reversed**
1, 4–18		Nonstatutory Obviousness-type Double Patenting*		
1, 4–6, 10–18	103(a)	Meyer	1, 4–6, 10–18	
7–9	103(a)	Meyer, Yuan	7–9	
Overall Outcome			**1, 4–18**	

* As explained above, this rejection is moot.

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED