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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* JEAN-ALEX LAFFITTE, BERNARD MONGUILLON, and  
PIERRE STACHURA

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Appeal 2019-006736  
Application 13/799,242  
Technology Center 1700

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Before BEVERLY A. FRANKLIN, JEFFREY B. ROBERTSON, and  
JEFFREY R. SNAY, *Administrative Patent Judges*.

ROBERTSON, *Administrative Patent Judge*.

DECISION ON APPEAL<sup>1</sup>

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant<sup>2</sup> appeals from the Examiner's decision to reject claims 1, 2, 8, 10, 13–16, 22–24, and 26–31. Appeal Br. 4. We have jurisdiction under 35 U.S.C. § 6(b).

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<sup>1</sup> This Decision includes citations to the following documents: Specification filed March 13, 2013 (“Spec.”); Final Office Action mailed June 18, 2018 (“Final Act.”); Appeal Brief filed April 11, 2019 and Supplemental Appeal Brief June 12, 2019 (“Appeal Br.”); Examiner's Answer mailed August 8, 2019 (“Ans.”); and Reply Brief filed September 9, 2019 (“Reply Br.”).

<sup>2</sup> We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as Arkema France. Appeal Br. 2.

We reverse.

### CLAIMED SUBJECT MATTER

Appellant states the invention relates to a process for acidic cleaning of the various elements and vessels that are used in the preparation of beer and other related fermented beverages. Spec. ¶ 1. Claim 1, reproduced below, is illustrative of the claimed subject matter (Appeal Br., Claims Appendix 14):

1. A process for one stage acidic washing to eliminate both beer stone and yeast ring stains in a beer fermentor comprising the steps of:
  - a) pre-washing the fermentor by circulation of an aqueous solution of sodium hydroxide or potassium hydroxide to remove impurities;
  - b) washing the fermentor containing both beer stone and yeast ring stains by circulation in said fermentor of an effective quantity of an aqueous cleaning formulation to remove the yeast ring stains located at aeration/liquid interfaces and beer stone, located on bottom and sides of the fermentor, consisting of 0.5 to 20 weight % methane sulphonic acid, in solution, as the cleaning agent; one or more organic acids; and one or more additives selected from the group consisting of rheological additives, solvents, biocides and other texture agents, co-solvents, inorganic acids, thickening agents, surface-active agents, foaming agents, anti-foaming agents, and mixtures thereof at a temperature between 5°C and 40°C for a sufficient time to allow complete removal of the yeast ring stain and beer stone from the surfaces of the beer fermentor; and
  - c) then rinsing said fermentor by circulation of a rinsing solution.

Claims 15 and 16 are also independent and recite processes for one stage acidic wash cleaning of a fermentor containing both beer stone and yeast ring stains.

## REFERENCES

The prior art relied upon by the Examiner is:

<b>Name</b>	<b>Reference</b>	<b>Date</b>
Vinkler et al. hereinafter “Vinkler”	US 3,449,164	June 10, 1969
Schluessler	US 4,923,523	May 8, 1990
Strothoff et al. hereinafter “Strothoff”	US 2004/0173244 A1	September 9, 2004

## REJECTION

The Examiner rejected claims 1, 2, 8, 10, 13–16, 22–24, and 26–31 under pre-AIA 35 U.S.C. § 103(a) as unpatentable over Schluessler, Vinkler, and Strothoff. Final Act. 3–6.

## OPINION

We limit our discussion to claim 1, which is sufficient for disposition of this appeal.

### *The Examiner’s Rejection*

In rejecting claim 1 as obvious over Schluessler, Vinkler, and Strothoff, the Examiner found Schluessler discloses a process for one stage acidic wash cleaning of equipment used in the food processing industry where an effective quantity of a cleaning formulation consisting of methane sulphonic acid in solution is used as the cleaning agent. Final Act. 3, citing Schluessler, col. 2, ll. 60–63. The Examiner found Schluessler does not disclose a pre-washing step, and found Strothoff discloses a preliminary

alkaline cleaning step in a similar cleaning process for contaminants from articles used in the food industry. *Id.* at 4. The Examiner determined it would have been obvious to optionally pre-clean the equipment as taught by Strothoff to enhance cleaning efficiency. *Id.*

The Examiner found Schluessler and Strothoff do not expressly teach that the food processing equipment being cleaned is a beer fermentor tank used in the preparation of beer. *Id.* at 5. The Examiner found Vinkler teaches that alkyl sulfonic acid cleans beer stone from brewery equipment. *Id.* citing Vinkler, col. 2, ll. 34–40. The Examiner determined it would have been obvious to employ the method of Schluessler and Strothoff to clean fermentors with a reasonable expectation of successfully cleaning the equipment. *Id.* The Examiner determined that because Schluessler, Strothoff, and Vinkler disclose the process steps of the claimed invention under similar conditions as disclosed by Appellant, it would be reasonably expected that the prior art method of cleaning will result in concurrent cleaning of both the beer stone and yeast ring as recited in the claims as they are common contaminants expected to be present in beer preparation equipment. *Id.* The Examiner further explained that when the prior art method of using methane sulfonic acid is used to remove beer stone, “it is reasonably expected that the overlying yeast ring is removed with the underlying beer stone in the cleaning step.” Ans. 10.

The Examiner found that the prior art does not expressly teach washing by circulation in a single stage, but because cleaning by circulation is a technique that is old and well known, one of ordinary skill in the art would have been motivated to circulate the cleaning fluid through the

equipment with a reasonable expectation of success of successful cleaning.  
*Id.*

*Appellant's contentions*

Appellant contends that there is insufficient reason, absent Appellant's Specification, for combining Schluessler, Strothoff, and Vinkler to arrive at the method of removing both yeast stains and beer stone in a one stage cleaning process as recited in claim 1. Appeal Br. 7–8. Appellant contends that the standard process in the beer industry was to first clean the yeast ring with phosphoric acid because the yeast ring is often located over the beer stone, and then to clean the beer stone with sulfuric acid. *Id.* at 9–10, citing Appeal Br. Appendix A, Declaration of Jean-Alex Lafitte (dated October 14, 2016, hereinafter “Lafitte Declaration”), ¶ 6; Reply Br. 2–4. Appellant argues none of the cited references discloses removal of yeast stains, much less a method for removing beer stone and yeast stains from a fermentor in one stage as recited in claim 1. *Id.* at 6; Reply Br. 3–4.

*Issue*

Has Appellant demonstrated reversible error in the Examiner's position that the method of washing the fermentor containing both beer stone and yeast ring stains with an aqueous cleaning formulation including methane sulphonic acid recited in claim 1 would have been obvious over the combined teachings of Schluessler, Vinkler, and Strothoff?

*Discussion*

We are persuaded by Appellant's arguments. That is, claim 1 recites a method including the step of "washing the fermentor containing both beer stone and yeast ring stains by circulation in said fermentor of an effective quantity of an aqueous cleaning formulation." Vinkler is the only prior art reference cited by the Examiner that discusses removal of stains from brewery equipment. Vinkler only mentions processes for the removal of beer stone (Vinkler, col. 1, ll. 27–30), and does not discuss removal of yeast ring stains.

The only evidence we have on this record regarding yeast ring stains is Appellant's Specification and the Lafitte Declaration, both of which disclose that removal of yeast ring stains occurs in a first step and removal of beer stone occurs in a second step, because yeast ring stains are often located over beer stone and the industry standard required a different acid to remove each type of stain. Spec. ¶¶ 4, 6, 8; Lafitte Decl. ¶¶ 6, 8.

Thus, although we agree with the Examiner that if methane sulphonic acid were to be applied to a fermentor having both yeast ring stains and beer stone, both would be removed as a result of the inherent ability of methane sulphonic acid, the Examiner has not identified evidence of a process where methane sulphonic acid is applied to a fermentor containing both stains. In this regard, the Examiner's explanation in the Answer that when methane sulphonic acid is applied to remove beer stone, yeast ring stains overlying the beer stone would also be removed (Ans. 10), presumes the presence of such yeast ring stains. As discussed above, the only evidence on this record is that yeast ring stains are removed prior to beer stone and with a different acid. Therefore, the Examiner has not sufficiently established that it would

have been obvious to employ methane sulphonic acid to a fermentor containing yeast ring stains overlying beer stone, where the evidence of record only indicates that such overlying yeast ring stains would be removed prior to removing the beer stone.

Thus, the Examiner has not made a sufficient prima facie case that the prior art renders obvious the method recited in claim 1. Independent claims 15 and 16 recite similar limitations as discussed above for claim 1. Accordingly, we reverse the Examiner's rejection of claims 1, 2, 8, 10, 13–16, 22–24, and 26–31 as obvious over Schuessler, Vinkler, and Strothoff.

#### DECISION SUMMARY

In summary:

<b>Claims Rejected</b>	<b>35 U.S.C. §</b>	<b>Reference(s)/Basis</b>	<b>Affirmed</b>	<b>Reversed</b>
1, 2, 8, 10, 13–16, 22–24, 26–31	103	Schuessler, Vinkler, Strothoff		1, 2, 8, 10, 13–16, 22–24, 26–31

REVERSED