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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JAMES M. BRENNAN, DANNY ELMER LINDSTROM,
CHRISTOPHER MICHAEL MCGINNIS, and
ERIC CHILD WILHELMSSEN

Appeal 2021-003606
Application 15/285,875
Technology Center 1700

Before JAMES C. HOUSEL, DONNA M. PRAISS, and
DEBRA L. DENNETT, *Administrative Patent Judges*.

HOUSEL, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant¹ appeals from the Examiner's decision to reject claims 1–19 and 22. *See* Non-Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ “Appellant” refers to “applicant” as defined in 37 C.F.R. § 1.42. Appellant identifies Smartwash Solutions, LLC as the real party in interest. Appeal Br. 3.

CLAIMED SUBJECT MATTER

The invention relates to a produce wash system comprising a produce line including a short-term wash device followed by a wash device, the short-term wash device applies a short-term wash treatment to the produce using a spray device that creates micrometer-sized droplets, wherein the short-term wash treatment remains on the produce for a pretreatment time that lasts until the produce reaches the wash device, and the wash device applies a wash treatment to the produce, wherein the wash treatment rinses the short-term wash treatment from the produce defining the end of the pretreatment time. Spec. ¶ 9. The pretreatment time is set at or below a damage threshold time beyond which the short-term wash treatment damages the produce beyond a damage threshold. *Id.*

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

1. A produce wash system comprising:

a short-term wash treatment solution;

a short-term wash device comprising a spray device configured to apply the short-term wash treatment solution to a produce product, wherein the spray device is configured to create a volume median diameter (VMD) of spray droplets between 2 micrometers and 40 micrometers;

a wash treatment; and

a wash device downstream of the short-term wash device to define a produce line and configured to apply the wash treatment to the produce product, wherein the short-term wash treatment solution is configured to be applied for a shorter duration and is chemically different from the wash treatment.

REFERENCES

The Examiner relies on the following prior art to reject the claims:

Name	Reference	Date
Bell	US 5,226,972	July 13, 1993
Mitchell	US 6,112,429	Sept. 5, 2000
Wolfe	US 2005/0233039 A1	Oct. 20, 2005
Bertolini	US 2007/0137678 A1	June 21, 2007
Mazin	US 2008/0274263 A1	Nov. 6, 2008
Arata	US 2008/0319062 A1	Dec. 25, 2008
Ohta	US 2017/0055538 A1	Mar. 2, 2017
McEntire	US 2015/0157034 A1	June 11, 2015

REJECTIONS

The Examiner maintains, and Appellant requests review of, the following grounds of rejection:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis
1–8, 16–19	103	Mitchell, Bertolini, Ohta
9–11	103	Mitchell, Bertolini, Ohta, Mazin
12	103	Mitchell, Bertolini, Ohta, McEntire
13, 14	103	Mitchell, Bertolini, Ohta, Arata
15	103	Mitchell, Bertolini, Ohta, Arata, Mazin, McEntire, Bell
22	103	Mitchell, Bertolini, Ohta, Wolfe

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 Appellant's arguments and the evidence of record, we are persuaded of reversible error in the stated rejections for reasons set forth in the Appeal and Reply Briefs.

Rejection 1: Obviousness of Claims 1–8 and 16–19

The Examiner rejects claims 1–8 and 16–19 under 35 U.S.C. § 103 as unpatentable over Mitchell in view of Bertolini and Ohta. Non-Final Act. 4–7.

The Examiner finds that Mitchell discloses a produce wash system substantially as recited in claim 1, except: 1) that Mitchell's two tanks contain the same fluid, rather than different fluids; and 2) that neither Mitchell nor Bertolini disclose the spray droplet size emitted from the sprayer in the first or short-wash treatment. Non-Final Act. 4–5. The Examiner relies on Bertolini's teaching that different produce wash fluids may be contained in different tanks of a produce wash system to allow different produce wash treatments in the same, rather than separate, systems. *Id.* The Examiner relies on Ohta's teaching of a produce misting system for misting fluid droplets of a size smaller in diameter than the produce's pores, preferably less than 10 μm , to permit the fluid to enter the pores. *Id.* at 5.

Appellant challenges the propriety of the Examiner's proposed combination of prior art references on the basis that Ohta is directed to non-analogous prior art. Appeal Br. 6–14; Reply Br. 2–4. For the reasons given in the Appeal and Reply Briefs, we agree that Ohta is non-analogous prior art and, therefore, the Examiner has not established a prima facie case of obviousness of the produce wash system of claim 1.

A reference is analogous art if it is either in the applicant's field of endeavor, or is reasonably pertinent to the particular problem with which the inventor was concerned. *In re Kahn*, 441 F.3d 977, 987 (Fed. Cir. 2006). Here, the Examiner determines that Ohta and Appellant are in the same field of endeavor. Ans. 3. In particular, the Examiner finds that Ohta relates to a method of preserving the freshness of a harvest crop, whereas Appellant's claimed invention relates to processing such produce. *Id.* at 3, 4. The Examiner states that because both Ohta and Appellant's invention relate to handling of produce crops, they are within the same field of endeavor. *Id.* In further support of this determination, the Examiner notes that Ohta and the claimed invention are classified in the same section and class, i.e., A23 covering "Foods and Foodstuffs; Their Treatment, Not Covered by Other Classes." *Id.* at 4. Further, in attempting to distinguish the present case from *In re Clay*, 966 F.2d 646, 659 (Fed. Cir. 1992), the Examiner reiterates the determination that Ohta and the claimed invention are in the same field of endeavor because, unlike *Clay*, the field of endeavor here, i.e., processing of raw, fresh produce, "is not so large." Ans. 5.

Even though clearly stating the position that Ohta and Appellant are in the same field of endeavor as indicated above, the Examiner also appears to take the position that Ohta is reasonably pertinent to the particular problem with which Appellant was concerned. For example, the Examiner finds that "[t]he differences between preserving and washing produce are not so large as to suggest that one of ordinary skill in the art would have no reason to seek information with the two fields of endeavor." Ans. 4; see also *id.* at 5. In this regard, the Examiner finds that Ohta relates to preserving produce freshness, which includes inhibiting mold growth. *Id.* The Examiner finds

that this field of endeavor “is not far removed from sanitizing produce” since the relevant processes are “remarkably similar.” *Id.* In particular, the Examiner finds that Ohta and Appellant’s claimed invention involve spraying treating liquids onto produce, and Ohta is relied on for its narrow teaching of spray droplet size. *Id.*

However, we are persuaded that one of ordinary in the art would not have combined the teaching of Ohta regarding spray droplet size with Mitchell’s wash system because Ohta teaches this spray droplet size specifically for rehydrating produce whose pores have been opened by irradiating the produce with blue light. *See* Ohta ¶ 68 (“it is known that the pores of crop open when crop is irradiated with blue light, rehydration via the pores of crop by misting crop with water while irradiating crop with blue light” (reference numerals omitted)). In this way, Ohta teaches an alternative to refrigeration for preserving produce freshness. *Id.* ¶ 12. Further, Ohta utilizes this irradiation and micro-spray system in retail produce transport, storage, and displays. *Id.* ¶¶ 3, 10, 11, 155–159; Figs. 11, 12, 15. Thus, Ohta is directed to preserving produce freshness by rehydration.

In contrast, there is no dispute that both Mitchell and Appellant are directed to produce washing systems. As the Examiner finds, without dispute, Mitchell discloses a produce wash system comprising two wash devices with separate tanks, but supplying the same wash fluid to the produce. Non-Final Act. 4. Appellant similarly describes a two-stage washing process performed by the produce washing system. Spec. ¶ 2. However, unlike Mitchell, Appellant discloses that the first washing stage provides a short-term sanitizing wash treatment to the produce and the second stage rinses the short-term wash treatment from the produce. *Id.* ¶ 9.

The short-term wash treatment is performed by spraying the treatment material onto the produce with micrometer sized droplets and may include antimicrobial treatment. *Id.* ¶¶ 10, 13.

The Examiner describes the field of endeavor of Appellant as the handling or processing of produce crops. We find this field of endeavor description to be unreasonably broad, in that it encompasses virtually any process of handling or processing produce, including harvesting and harvestors, grading and segregating, produce cutting, pitting, and chopping, produce packaging, hydrating and preserving, and, of course, washing and sanitizing. Merely demonstrating that references share common patent classification is insufficient to establish that the references are analogous prior art to a claimed invention, particularly where, as here, the common classifications are in a catchall, “Not Covered by Other Classes.”

As discussed above, both Mitchell and Appellant are directed to the washing of produce crops. A more reasonable statement of Appellant’s field of endeavor, therefore, is the field of washing and sanitizing harvested produce. Ohta’s field of endeavor, on the other hand, is more reasonably stated as the field of preserving produce freshness, especially for use in retail transport, storage and displays. As such, we are persuaded that the Examiner erred in finding that Ohta shares the same field of endeavor as Appellant.

In addition, Ohta is directed to the problem of produce freshness during transport, storage, and display, and solves this problem by irradiating the produce with blue light to open pores in the produce and micro-spraying water onto the produce to be absorbed into these open pores to rehydrate the produce. The Examiner has not established that this problem is reasonably related to Appellant’s problem of spraying a short-term wash and sanitizing

treatment onto produce. The Examiner fails to relate Ohta's reason for micrometer-sized spray droplets, i.e., to be the size of produce pores for efficient absorption, to either Appellant's wash and sanitizing system or Mitchell's wash system. As such, we are also persuaded that the Examiner erred in finding that Ohta is reasonably pertinent to the problem the inventors faced.

The Examiner does not rely on Bertolini to remedy the deficiency in Mitchell on which Ohta was relied. Accordingly, we do not sustain the Examiner's obviousness rejection of claims 1–8 and 16–19 over the combination of Mitchell, Bertolini, and Ohta.

Rejections 2–6: Remaining Prior Art Rejections

The Examiner rejects claims 9–15 and 22 under 35 U.S.C. § 103 as unpatentable over Mitchell in view of Bertolini and Ohta, and further in view of various tertiary references. Non-Final Act. 7–12. However, the Examiner does not rely on any of these tertiary references to remedy the deficiency in the combination of Mitchell, Bertolini, and Ohta discussed above. Accordingly, we do not sustain the Examiner's obviousness rejections of claims 9–15 and 22.

CONCLUSION

Upon consideration of the record and for the reasons set forth above and in the Appeal and Reply Briefs, the Examiner's decision to reject claims 1–19 and 22 under 35 U.S.C. § 103 as unpatentable over Mitchell, Bertolini, Ohta, and various tertiary references, is *reversed*.

DECISION SUMMARY

The following table summarizes the outcome of each rejection:

Claim(s) Rejected	35 U.S.C. §	Reference(s)/ Basis	Affirmed	Reversed
1–8, 16–19	103	Mitchell, Bertolini, Ohta		1–8, 16– 19
9–11	103	Mitchell, Bertolini, Ohta, Mazin		9–11
12	103	Mitchell, Bertolini, Ohta, McEntire		12
13, 14	103	Mitchell, Bertolini, Ohta, Arata		13, 14
15	103	Mitchell, Bertolini, Ohta, Arata, Mazin, McEntire, Bell		15
22	103	Mitchell, Bertolini, Ohta, Wolfe		22
Overall Outcome				1–19, 22

REVERSED