

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES T.C. YUAN and HENRY LEDON

Appeal 2008-3503
Application 10/342,342
Technology Center 1700

Decided: November 17, 2008

Before CHARLES F. WARREN, LINDA M. GAUDETTE,
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 3-5, 7, and 9-13. Claims 14 and 15 are also pending in the application, but have been withdrawn from consideration and indicated as allowable. Claims 1, 2, 6, and 8 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

BACKGROUND

The invention relates to “high pressure processing of packaged food items to improve safety and sensory qualities (e.g., smell, taste, texture) of

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the food items prior to and during consumption of such food items.” (Spec. 1, ll. 11-13.) Claim 3 is illustrative of the invention and is reproduced below:

3. A method of treating a substance for packaging comprising:

providing an enclosed environment including the substance and at least one gas selected from the group consisting of carbon monoxide, nitric oxide, nitrous oxide, hydrogen, oxygen, helium, argon, krypton, xenon and neon, wherein the enclosed environment comprising the substance and at least one gas is provided by inserting the substance within the enclosed environment; and flushing the at least one gas within the enclosed environment;

applying an external pressure to the enclosed environment including the substance and the at least one gas, wherein the external pressure is applied in an amount of at least about 50 MPa; and

sealing the substance in a storage container.

The Examiner relies on the following prior art references to show unpatentability:

Nakazawa (JP ‘566)	JP 03-083566	Apr. 9, 1991
Fath	5,128,160	Jul. 7, 1992

In the final Office Action, claims 3-5, 7, and 9-13 were provisionally rejected under the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12, 14-26, and 28 of co-pending Application No. 10/420,928. In the Answer, the Examiner advises that this rejection has been overcome by the Terminal Disclaimer filed February 2, 2007 (Ans. 2-3, ¶ (6)). Therefore, the sole ground of rejection before us in this Appeal is the rejection of claims 3-5, 7, and 9-13 under 35 U.S.C. § 103 as unpatentable over JP ‘566 in view of Fath.

The Examiner finds that JP ‘566 discloses a method of treating a substance for packaging as claimed with the exception of the inert gas being nitrous oxide or argon. (Ans. 4.) However, the Examiner contends that it would have been obvious to one of ordinary skill in the art at the time of the invention to have used nitrous oxide or argon in the JP ‘566 method to obtain the various advantages disclosed by Fath. (Ans. 4.) In particular, the Examiner notes that Fath discloses a method of packaging fresh foods in which nitrogen monoxide and argon are used in conjunction with other inert gases to improve shelf-life and eliminate fungal attacks. (Ans. 4.)

Appellants argue that one of ordinary skill in the art would not have been motivated to combine the teachings of JP ’566 and Fath because Fath’s method requires the presence of oxygen, while oxygen is detrimental to the JP ‘566 process. (*See* Ans. 10-12.) Appellants thus request reversal of the rejection of claims 3-5, 7, and 9-13 on the basis that the Examiner failed to establish a *prima facie* case of obviousness. (Ans. 12.)

ISSUE

Based on the contentions of the Examiner and the Appellants, the issue presented in this Appeal is: have Appellants identified reversible error in the Examiner’s determination that one of ordinary skill in the art would have been motivated to use nitrous oxide or argon in the JP ‘566 method based on Fath’s disclosure?

We answer this question in the negative for the reasons discussed below.

FINDINGS OF FACT (“FF”)

- 1) JP ‘566 is directed to a method of preventing discoloration of food due to oxidation. (JP ‘566, p. 4, ll. 4-6.)

- 2) JP '566 notes, in particular, that foods such as apples, persimmons, and green vegetables are subject to browning or color fade due to oxidation. (JP '566, last paragraph.)
- 3) In a preferred embodiment, the JP '566 method includes the steps of prefilling a package with food, evacuating air from the package, filling the package with an inert gas such as carbon dioxide or nitrogen, and sealing the package. (JP '566, p. 5, ll. 1-12.)
- 4) Fath discloses a method for preservation of fresh fruits and vegetables which is based on the discovery that "nitrogen monoxide and argon have remarkable intrinsic properties on the preservation of fresh plants." (Fath, col. 1, ll. 66-68.)
- 5) According to Fath, the use of nitrogen, carbon dioxide, for example, for optimizing survival of fruits and vegetables was known in the art at the time of the invention. (Fath, col. 1, ll. 16-20.)
- 6) Fath notes that "especially for fruits, the preservation of the organoleptic qualities and outside appearance are very important parameters for consumers." (Fath, col. 1, ll. 28-30.)
- 7) In one embodiment, Fath's "preservation treatment process" comprises placing vegetable products "in a gaseous atmosphere initially containing 10 to 100% nitrogen monoxide or argon, or a mixture of the two, between 0 and 50% oxygen, with any remainder being composed of an inert gas." (Fath, col. 1, ll. 39-47.)
- 8) According to Fath, the treatment process slows down the ripening process, thus preserving the texture of the products and having a pronounced fungistatic action. (Fath, col. 2, ll. 3-5.)

PRINCIPLES OF LAW

“The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007). “[I]f 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.” *Id.* at 1740. A reference stands for all of its specific teachings, as well as the inferences one of ordinary skill in this art would have reasonably been expected to draw therefrom. *In re Fritch*, 972 F.2d 1260, 1264-65 (Fed. Cir. 1992). When a second reference identifies the benefits of adding a feature to the primary reference, an obviousness rejection is proper. *In re Thrift*, 298 F.3d 1357, 1365 (Fed. Cir. 2002).

ANALYSIS

We have thoroughly considered Appellants’ arguments in support of patentability of the claimed invention. However, viewing the facts in this Appeal in light of the relevant case law, we are not persuaded that the Examiner reversibly erred in determining that one of ordinary skill in the art would have been motivated to use nitrous oxide or argon in the JP ‘566 method based on Fath’s disclosure.

Both JP ‘566 and Fath are directed to preserving the shelf life of fresh fruits and vegetables (FF 1, 2, 4), including preventing discoloration (FF 1, 2, 6). Both references disclose processes in which fresh produce is treated with inert gases. (FF 3, 5, 7.) Fath discloses that treatment of fresh produce with an atmosphere containing 10 to 100% nitrogen monoxide and/or argon, and a remaining balance of inert gases slows down the ripening process, thus

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preserving the texture of the products and providing a fungistatic action. (FF 7, 8.) Thus, Fath clearly identifies the benefits of adding nitrogen monoxide and/or argon in the JP '566 method.

Appellants argue that the ordinary artisan would not have been motivated to combine the teachings of JP '566 and Fath because Fath's method requires the presence of oxygen, while oxygen is detrimental to the JP '566 process. (Br. 10-12.) We are not persuaded by this argument because it is not supported by the record in this Appeal. The sole evidence relied on by Appellants is the reference disclosures (*see* Br. 10-12 and 17). Contrary to Appellants' contention, we find that while Fath indicates that oxygen may be present in the treatment atmosphere, oxygen is clearly not required (FF 7).

CONCLUSION

Based on the foregoing, we concur in the Examiner's determination that the claimed invention is obvious within the meaning of 35 U.S.C. § 103, because it is nothing more than the predictable result of a combination of familiar elements according to known methods. Therefore, we conclude that Appellants have not identified reversible error in the Examiner's obviousness determination.

ORDER

The decision of the Examiner rejecting claims 3-5, 7, and 9-13 under 35 U.S.C. § 103 as unpatentable over JP '566 in view of Fath is affirmed.

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

AFFIRMED

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PL Initial:
sld

LINDA K. RUSSELL
2700 POST OAK BLVD.
SUITE 1800
HOUSTON, TX 77056