

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GARY L. UNDERWOOD and JEFFREY J. ROZUM

Appeal No. 2004-1794
Application No. 09/626,039

ON BRIEF

Before KRATZ, TIMM, and DELMENDO, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 7-9, 18 and 19, which are all of the claims pending in this application.

Appellants' invention relates to a susceptor useful in a microwave oven. An understanding of the invention can be derived from a reading of exemplary claim 1, which is reproduced below.

1. A susceptor for use in a microwave oven comprising:
 - a) a porous, microwavable substrate selected from the group consisting of cardboard, paper, and cotton; and
 - b) a food browning composition applied to at least one surface of the substrate in a sufficient amount to

provide about 0.05 to about 0.5 mg of hydroxyacetaldehyde per square centimeter of substrate surface to impart a brown color to a foodstuff.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Fisher et al. (Fisher)	4,892,782	Jan. 09, 1990
Shoop et al. (Shoop)	5,756,140	May 26, 1998
Singh	5,952,027	Sep. 14, 1999
Jay et al. (Jay) (published International Pat. Appl. No. PCT/GB90/01338)	WO 91/03917	Mar. 21, 1991

Claims 1, 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Fisher in view of Singh and Shoop.

Claims 1 and 7 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jay in view of Shoop. Claim 8 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Jay in view of Shoop and Fisher. Claims 18, 19 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Jay in view of Shoop. We refer to the briefs and to the answer for the opposing viewpoints expressed by appellants and the examiner concerning the above-noted rejections.

Upon careful review of the entire record including the respective positions advanced by appellants and the examiner, we find ourselves in agreement with appellants insofar as the

examiner has failed to carry the burden of establishing a prima facie case of obviousness. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1471-1472, 223 USPQ 785, 787-788 (Fed. Cir. 1984). Accordingly, we will not sustain the examiner's rejections. Our reasoning follows.

We note that all of the claims on appeal require a microwavable substrate with a composition including hydroxy acetaldehyde applied thereto. The appealed claims require about 0.05 to about 0.5 mg of hydroxyacetaldehyde per square centimeter of substrate surface. With regard to the examiner's first stated rejection, the examiner (answer, page 4) acknowledges that Fisher does not teach applying hydroxyacetaldehyde (HAA) to a substrate as required by appellants' claims.

The examiner turns to Singh and Shoop for teaching a browning composition that includes HAA.

In the examiner's words (answer, page 4),

Therefore, to select any particular level of HAA such as 0.05 to 0.5 mg/sq-cm would have been an obvious result effective variable of the particular food to be treated, the particular conditions for the browning reaction, and the desired color, since Singh teaches the concentration of pyrolysis product, which contains the HAA, selected depends on the particular food to be treated, the particular conditions for the browning reaction, and the desired color, and in particular the

greater the concentration, the darker the color. Furthermore, one would have been substituting one known caramel coloring for another for the same purpose: providing a brown color to a food that is cooked in a microwave oven.

As found by the examiner and noted above, Fisher does not disclose using HAA containing browning compositions as an applique for a microwavable substrate surface, let alone in the amounts claimed for such a purpose. In this regard, Fisher discloses a composite food wrapping material including a liquid permeable, fibrous dielectric material substrate that is coated with one or more susceptor materials. Fisher teaches that the susceptor materials are substances that are capable of absorbing the electric or magnetic field components of the microwave energy to convert that energy to heat. Fisher notes that many such materials are known, including a variety of metals, certain naturally occurring microwave susceptible food ingredients or flavors, such as molasses, honey, maple syrup, caramel, sucrose, fructose, lactose and glucose and ionically conductive flavoring agents and other susceptor materials, such as, conductive polymers. See column 4, lines 3-30 of Fisher. Fisher further teaches that the quantity of susceptor applied to the substrate "should be sufficient to rapidly raise the temperature of the composite material to temperatures which will aid the browning

and crispening of the adjacent food surface but should also not substantially impede the ability of microwave energy to penetrate into the food item being cooked." See column 5, lines 10-32 of Fisher. The drapable product of Fisher is disclosed as being a browning or crisping enhancement item for foods in contact with and surrounded by the composite material wrap during microwave heating thereof. See column 2, lines 46-62 of Fisher.

The examiner has determined that Singh discloses browning liquid pyrolysis products, including Maillose caramel coloring from Arrow Products Company, that contain some HAA. Similarly, the examiner turns to Shoop for disclosing substitute egg wash compositions that include HAA for imparting a brown color to dough based foodstuffs. However, both of those latter patents teach that the compositions disclosed therein are directly applied as a coating to the food to be browned. Also, neither of those latter patents teaches that HAA is a microwave susceptor material that absorbs the electric or magnetic field components of microwave energy as is required for the susceptor coating of Fisher. Moreover, the examiner has not established that the HAA of Singh or Shoop would contribute as an aroma or flavor enhancing agent for foods, especially if not directly coated thereon. Given the above, the examiner's position that "[o]ne

would have been substituting one known caramel coating for another for the same purpose" (answer, page 5) falls short in fairly establishing both a suggestion and reasonable expectation of success regarding the examiner's proposed modification of the susceptor materials of Fisher based on the disparate teachings of Singh and Shoop with respect to the compositions and methods of applying same as disclosed in those latter patents.

In this regard, the examiner must provide specific reasons or suggestions for combining the particular teachings and disclosures of the applied references. The examiner's assertion that the proposed modification of Fisher is merely the replacement of one caramel coating with another does not serve to identify a convincing and particularized suggestion, reason or motivation to combine the references or make the proposed modification in a manner so as to arrive at the claimed invention. See In re Rouffet, 149 F.3d 1350, 1359, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998). In this regard, the HAA containing coatings of Singh and Shoop are described by those latter patents as food coating materials. Singh teaches that whole meats should be subjected to a gelatin purge and predried before coating the surface of such a cooked meat product with the pyrolysis coating material. Against that background, the examiner's mere assertion

of an equivalency between the susceptor and flavor enhancing materials applied to a substrate as taught by Fisher and the specific HAA containing food coating materials of Singh and Shoop appears to be based on appellants' teachings, not those of the applied references.

On this record, we agree with appellants that the examiner has not established a prima facie case of obviousness. Consequently, we reverse the examiner's § 103(a) rejection based on Fisher in combination with Singh and Shoop.

Similarly, the examiner's § 103(a) rejections premised on a proposed modification of Jay based on the teachings of Shoop stand on a weak footing. Jay is concerned with a brown coloring agent containing composition that is applied to an inner surface of a microwave transparent material that will be in contact with a food item during microwave heating. Microwave heating results in a food item that is browned on the surface that is contacted by such a coated microwave transparent material during heating. Jay specifically refers to annatto or malt extract as examples of the type of brown coloring agent employed. While Jay (page 3, lines 5-7) does note that "any commercially known coloring agent which produces a suitable brown color on food products particularly on heating" may be used, Jay also provides that a

"hygroscopic system" would not be suitable. Here, the examiner has not fairly established that the egg wash, including HAA, disclosed by Shoop as being applied directly to food would meet the criteria for a coloring agent of the type suggested by Jay because HAA browns by a reaction with foodstuff proteins and is hygroscopic. The mere assertion by the examiner (answer, page 6) that it would have been obvious to one of ordinary skill in the art to substitute "one known commercial browning agent for another for the same purpose" does not establish that the egg wash that is directly applied to foodstuffs by Shoop is an equivalent to the coloring agents (pigments or stains) suggested by Jay. On this record, the examiner's § 103(a) rejection of claims 1 and 7 and separately stated § 103(a) rejection of claims 9, 18 and 19, each over Jay and Shoop, are not sustained.

Because the examiner's separate rejection of claim 8 employing Jay and Shoop together with Fisher suffers from the same basic defect that the examiner has not shown to be remedied by Fisher, we will not sustain the examiner's § 103(a) rejection of claim 8.

CONCLUSION

The decision of the examiner to reject claims 1, 7 and 8 under 35 U.S.C. § 103(a) as being unpatentable over Fisher in view of Singh and Shoop; to reject claims 1 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Jay in view of Shoop; to reject claim 8 under 35 U.S.C. § 103(a) as being unpatentable over Jay in view of Shoop and Fisher; and to reject claims 18, 19 and 9 under 35 U.S.C. § 103(a) as being unpatentable over Jay in view of Shoop is reversed.

REVERSED

PETER F. KRATZ)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CATHERINE TIMM)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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PFK/sld

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