UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte LLOYD E. METZGER

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Appeal No. 2006-0379
Application No. 10/315,780

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ON BRIEF

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Before OWENS, DELMENDO, and FRANKLIN[1], Administrative Patent Judges.

FRANKLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 40-45 and 49-53. A copy of each of these claims is set forth below:

40. An improved whole wheat flour prepared from peroxide bleached whole grains of wheat having a white color and a dietary fiber content of about 10% to 12%.

41. The improved whole wheat flour of claim 40 substantially free of any bromate bleaching agent.

[1] The panel has not changed from the panel in related Appeal No. 2005-1454; rather a name change from Pawlikowski to Franklin has occurred.

42. The improved whole wheat flour of claim 41 prepared from white wheat.

43. The improved whole wheat flour of claim 41 having a pH of about 6.3 to 6.7.

44. The improved whole wheat flour of claim 43 prepared from hard white wheat.

45. A finished baked good prepared from the flour of claim 40.

49. The improved whole wheat flour of claim 40, wherein each of the peroxide bleached whole grains of wheat includes a bran layer having been treated with peroxide to decrease an exterior color of the bran layer and an inner endosperm having, at most, minimal exposure to any peroxide.

50. A lightened grain kernel comprising:

a bran layer having been treated with peroxide to decrease an exterior color of the bran layer; and

an inner endosperm having, at most, minimal exposure to any peroxide.

51. The lightened grain kernel according to claim 50, wherein the grain kernel is selected from the group consisting of wheat, rice, barley and soybeans.

52. The lightened grain kernel according to claim 51, wherein the grain kernel is constituted by white wheat.

53. The lightened grain kernel according to claim 52, wherein the white wheat is hard white wheat.

The examiner relies on the following reference as evidence of unpatentability:

Devic 5,480,788 Jan. 02, 1996

Claims 40-45 and 49 stand rejected under 35 U.S.C. § 103 as being obvious over Devic.

Claims 50-53 stand rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over Devic.

With regard to the claims under consideration in this appeal, to the extent that any one claim is specifically and separately argued regarding patentability, we will consider such claim. See 37 CFR § 41.37(c)(1)(vii)(September 2004); formerly 37 CFR § 1.192(c)(7)(2003). Also see Ex parte Schier, 21 USPQ2d 1016, 1018 (Bd. Pat. App. & Int. 1991).

OPINION

I. The 35 U.S.C. § 103 rejection of claims 40-45 and 49

The examiner's position for this rejection is set forth on page 2 of the Office Action mailed June 4, 2004 (we note that the examiner refers to this Office Action as having been mailed on May 27, 2004, on page 2 of the answer).

The examiner states that Devic discloses peroxide bleached whole wheat kernels, which are converted into white wheat flour. The examiner's position is that finding the optimal fiber content, and pH, of the wheat flour would require nothing more than routine experimentation by one reasonably skilled in the art. Office action of June 4, 2004, page 2.

Beginning on page 5 of the brief, appellant argues that Devic does not teach to make a white, whole wheat flour, including whitened bran and endosperm which has not been tainted

by peroxide, as required by claim 49. Appellant also argues that Devic is not concerned with treating whole grain kernels.

Beginning on page 9 of the brief, appellant also argues that Devic does not teach a whole wheat flour having a dietary fiber content of about 10% to 12%. Appellant states "[t]here is simply no specific teaching in Devic to produce a white, whole wheat flour having a dietary fiber content of about 10% to 12% from peroxide bleached whole grains." Brief, page 10.

Appellant also argues when one considers that common white flour had a dietary content of about 1-2%, making a white, whole wheat flour having 10% to 12% dietary fiber is an important and distinct advancement. Brief, page 10.

With regard to the argument concerning whole wheat flour prepared from peroxide bleached whole grains, we agree with the examiner that Devic teaches that "whole grains of cereals" are treated with peroxide. It is clear that Devic teaches that whole grains may be treated. See column 2, lines 60-68 of Devic. Also, Devic teaches in column 1, beginning at line 18 that "[t]he plant materials which can be bleached according to the invention include all products of vegetable origin, which are used for nutrition, either in their **entirety** or parts thereof [emphasis added]."

Because whole grains of wheat are treated in Devic, we likewise agree with the examiner that the whole wheat flour will have a fiber content typical of a whole wheat flour prepared from whole grains of wheat (which is to be distinguished from the dietary fiber content of white flour prepared from refined flour). The burden is upon appellants to show that the fiber content of the whole wheat flour prepared from peroxide bleached whole grains according to Devic would somehow have a different

fiber content than that which is typical of whole wheat flour prepared from whole grains. In this regard, we incorporate herein, the examiner's position, as set forth on page 4 of the answer, wherein the examiner states that whole wheat flour naturally has a particular fiber content. The examiner states that since Devic provides a whole wheat flour, the resultant product obviously has a dietary fiber content similar to that claimed by appellant for whole wheat flour. The examiner states that appellant's claimed whole wheat flour having a certain fiber content cannot be said to patentably distinguish over the whole wheat flour prepared in Devic.

With regard to the claimed pH values of from about 6.3 to 6.7, as recited in appellant's claim 43, we note that Devic teaches that the pH of the material after bleaching is less than or equivalent to 8.5, which suggests appellants' claimed range. See column 4, lines 20-24 of Devic.

With regard to claim 49, on page 11 of the brief, appellant argues that claim 49 specifically limits the wheat flour to be made from bleached whole grains of wheat, wherein a bran layer is treated with peroxide, and an inner endosperm is "not treated".[2] Appellant argues that Devic teaches that all the plant material, including the endosperm, is soaked in the bleaching solution. See also pages 2-3 of the reply brief.

[2] We note that none of appellant's claims recite that the inner endosperm is "not treated"; hence, appellant's statement here is incorrect.

Claim 49 recites that each of the peroxide bleached whole grains of wheat includes a "bran layer having been treated with peroxide" and "an inner endosperm having, at most, minimal exposure to any peroxide".

In response, on pages 2-3 of the answer, the examiner states that the disclosure in Devic regarding that the peroxide solution is absorbed by the plant material or grain kernels is not contrary to obtaining a grain kernel whose inner endosperm has had minimal exposure to peroxide. The examiner first notes that the word "minimal" is a relative term, without clear meaning in appellant's invention.[3] The examiner states that appellant produces grain kernels by exposing them to peroxide at 50 to 165°F, for 30 seconds to three minutes, and refers to appellant's specification, on page 11, lines 1-4. The examiner points out that because Devic also treats whole grains of cereal for a few minutes at a temperature within appellant's claimed range, it follows that the inner endosperm of the grain kernels in Devic is exposed to the same amount of peroxide as appellant's endosperm portion.

Devic treats whole grains of cereal for a few minutes at a temperature overlapping appellant's claimed range (Devic teaches that the temperature ranges from 20 to 100°C. See column 3, lines 43-50). The soaking time is selected depending on the capacity of the apparatus to ensure homogeneous mixing and to maintain the desired temperature. In general, a soaking time of from a few minutes to a few hours is required depending on the type of apparatus used. See column 4, lines 56-68 of Devic.

[3] We note that the word "minimal" is not specific as to a numerical amount; rather it is a subjective term. In this context, we agree with the examiner's position here.

Devic also teaches that the amounts and concentrations of the reactants of the alkaline aqueous hydrogen peroxide solution is selected such that all the solution is absorbed by the plant material over the course of the soaking. Devic also teaches that the heating time depends on the nature of the material and the amount of peroxide. See column 5, lines 5-6 of Devic. Devic teaches an amount of hydrogen peroxide varies from 1% to 20% by weight relative to the dry weight of the material. See column 4, lines 1-5.

In view of the above, it is therefore clear that Devic suggests overlapping temperature and time values (as well as amount of hydrogen peroxide) in comparison with the time and temperature disclosed in appellant's specification. As such, we agree with the examiner's position that "minimal" exposure of the endosperm of the kernel to the peroxide is suggested by Devic.

In view of the above, we affirm the 35 U.S.C. § 103 rejection of claims 40-45 and 49 as being obvious over Devic.

II. The 35 U.S.C. § 102(b) or § 103(a) rejection of claims 50-53 over Devic

On pages 2-3 of the Office Action mailed June 4, 2004, the examiner states that wheat kernels naturally have a bran layer and an inner endosperm. The examiner states that the bran layer is contacted with peroxide in Devic. The examiner states that exposure of the inner endosperm of the wheat kernels in Devic is inherently minimized since the peroxide concentration is as low as 30% strength, the amount used is as low as 1%, and the treatment time and temperature is for a few minutes at a low temperature, and refers to column 3, lines 63 to column 4, line

67 of Devic. The examiner states that these conditions are consistent with what appellant discloses in the specification that are necessary for minimal exposure of the endosperm to peroxide, and refers to page 11 of appellant's specification.

Beginning on page 6 of the brief, appellant argues that claim 50 is directed to a lightened grain kernel and requires that the grain kernel has an inner endosperm having at most a minimal exposure to any peroxide. On page 7 of the brief, appellant also argues that Devic is concerned with treating ground material. Appellant argues that Devic lacks any disclosure of treating a whole grain.

With regard to the "ground material" argument, we are not convinced by this line of argument for the reasons discussed supra, in the previous art rejection. While we appreciate appellant's discussion of other disclosures of Devic, regarding treatment of powdered pulp, etc., the reference is not so limited. We note that one of ordinary skill in the art would have evaluated Devic's disclosure as a whole, rather than solely the working examples or preferred embodiments, because a prior art disclosure is not limited to its working examples or to its preferred embodiments. Merck & Co. Inc. v. Biocraft Labs. Inc., 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989); In re Fracalossi, 681 F.2d 792, 794 n.1, 215 USPQ 569, 570 n.1 (CCPA 1982); In re Lamberti, 545 F.2d 747, 750, 192 USPQ 278, 280 (CCPA 1976); In re Boe, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966).

With regard to the "minimal" exposure to peroxide argument, the examiner has found that Devic teaches a soak time and temperature that is similar to the soak time and temperatures

disclosed in appellant's specification.[4] Devic's process conditions overlap appellant's process conditions as disclosed in the specification.[5] As such, we agree with the examiner's position that "minimal" exposure of the endosperm of the kernel to the peroxide is suggested by Devic. While we appreciate appellant's discussion in the paragraph bridging pages 7 and 8 of the brief (as well as the discussion in the reply brief), as stated supra, we agree with the examiner's assessment in this regard.

On page 9 of the brief, appellant argues the obviousness-type portion of the rejection, and argues that the examiner has not identified any differences, but simply states that if there are any differences, they would be obvious. We believe an example of the examiner's position in this regard is that, with respect to claim 52 (for example), "the grain kernel is constituted by white wheat". Devic teaches that the plant materials that can be bleached include all products of vegetable origins which are used for nutrition, either in their entirety or parts thereof. Exemplary of such products are cereal grains (wheat, maize, oats, barley, rice, etc.), peels, skins, pips of fruits, bran from oil plants, such as sunflowers, bran from cereals". See column 1, lines 18-24 of Devic. In view of this

[4] Devic discloses that the soaking time ranges from a "few minutes to a few hours". Column 4, lines 65-67. The hydrogen peroxide is typically used in the form of an aqueous solution of 30% to 70% strength. See column 3, lines 64-65. The temperature during the soaking phase ranges from 20° to 100°C. See column 4, lines 57-58.

[5] We note that, in related Appeal No 2005-1454 (a copy is provided herewith), the Board determined that although Devic discloses overlapping ranges among the three parameters, a certain amount of picking and choosing would be necessary in order to anticipate the claimed subject matter of process claim 13 of related application S.N. 10/315,763. The Board rejected claim 13, anew, under 35 U.S.C. § 103 as being obvious over Devic.

disclosure, we agree with the examiner that it would have been obvious to have selected the type of wheat (white wheat) as recited in claim 52.

In view of the above, we reverse the 35 U.S.C. § 102(b) rejection of claims 50-53, but affirm the rejection of these claims under 35 U.S.C. § 103 as being obvious over Devic.

III. Conclusion

The rejection of claims 40-45 and 49 under 35 U.S.C. § 103 as being obvious over Devic is affirmed.

The anticipation rejection of claims 50-53 under 35 U.S.C. § 102(b) as being anticipated by Devic is reversed.

The obviousness rejection of claims 50-53 under 35 U.S.C. § 103(a) as being obvious over Devic is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(iv)(effective Sept. 13, 2004).

AFFIRMED

Terry J. Owens Administrative Patent Judge	)	
Romulo H. Delmendo Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
Beverly A. Franklin Administrative Patent Judge	)	

BAF/cam

General Mills, Inc.
Number One General Mills Blvd.
Minneapolis, MN 55426