THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 43

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte RUTH G. CHIOU,
CHERYL C. BROWN, JEANNETTE A. LITTLE,
KEITH D. STANLEY, AUSTIN H. YOUNG,
ROBERT V. SCHANEFELT, DONALD W. HARRIS,
HELEN D. COONTZ, CAROLYN J. HAMDAN,
JODY A. WOLF-RUEFF, LORI A. SLOWINSKI,
KENT R. ANDERSON, WILLIAM F. LEHNHARDT,
and ZBIGNIEW J. WITCZAK

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Appeal No. 94-2895
Application 07/908,728[1]

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ON BRIEF

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Before KIMLIN, GARRIS, and WARREN, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

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[1] Application for patent filed July 6, 1992. According to appellants, the application is a continuation of Application 07/578,994, filed September 6, 1990, now abandoned; which is a continuation-in-part of Application 07/483,208, filed February 20, 1990, now abandoned.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1, 2, and 26 through 104 which are all of the claims remaining in the application.

The subject matter on appeal relates to various methods and compositions involving a starch hydrolysate which is fragmented and/or granular and which is intended for use as a replacement for at least a portion of the fat and/or oil in a food formulation. This appealed subject matter is adequately illustrated by independent claims 1 and 29 which read as follows:

1. A food formulation having a reduced level of fat and/or oil comprising a mixture of a foodstuff and a fragmented, amylopectin starch hydrolysate as a replacement for at least a portion of the fat and/or oil of said food formulation, said hydrolysate being capable of forming an aqueous dispersion at about 20% hydrolysate solids exhibiting a yield stress of from about 100 to about 1,500 pascals.

29. A composition of matter comprising:

a major amount by weight of a granular starch hydrolysate having a weight average molecular weight of less than about 12,000 g/mol and being comprised of:

a controlled amount of salt present in an amount sufficient to enhance the fat-like characteristics of the composition upon shearing in an aqueous medium, said salt selected from the group consisting of alkali metal and chlorides, alkali metal sulfates, alkaline earth metal chlorides, alkaline earth metal sulfates, and mixtures thereof.

The references relied upon by the examiner as evidence of obviousness are:

Lenchin et al. (Lenchin)	4,510,166	Apr. 9, 1985
Morehouse et al. (Morehouse)	4,536,408	Aug. 20, 1985
Cain et al. (Cain)	4,917,915	Apr. 17, 1990 (filed Mar. 2, 1987)

Anter et al. (Anter), Abstract, Accession Number 85-210261/35, "Prodn. of non-fat non-milk ice cream - from as. mix. conts. sucrose and starch hydrolysate," DD-161178-A , May 2, 1985

Battista et al. (Battista), "Colloidal Macromolecular Phenomena. Part II. Novel Microcrystals of Polymers," Journal of Applied Polymer Science, Vol. 11, pp. 481-98 (1967)

Claims 1, 2, and 26 through 104, which are all of the claims on appeal, stand rejected under 35 U.S.C. § 103 as being unpatentable over Battista and Cain in view of Morehouse, Anter, and Lenchin.[2] According to the examiner, "it would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to use starch hydrolyzates [sic] as taught by Battista et al and Cain et al as a fat replacer in combination with salt or sucrose because the use of starch hydrolyzates [sic] as fat replacers in combination with salt or sucrose is conventional in the art" (Answer, page 4).

[2] The appellants have separately grouped and argued the appealed claims in accordance with certain claim limitations which will be discussed in the opinion section of this decision.

Rather than reiterate the respective positions advocated by the appellants and the examiner concerning the above noted rejection, we refer to the Brief and to the Answer for a complete exposition thereof.

OPINION

For the reasons set forth below, we will sustain the examiner's rejection of claims 26 through 30 and 62 through 65 but not the rejection of claims 1, 2, 31 through 61, and 66 through 104.

Claims 26 through 30 and 62 through 65

The appellants argue that the applied prior art contains no teaching or suggestion of the granular starch hydrolysate feature recited in each of the claims under consideration. This is clearly erroneous. Lenchin expressly teaches granular starch hydrolysates as fat/oil replacers in foodstuffs (e.g., see the Abstract, lines 21 through 36 in column 3, and lines 52 through 60 in column 5).

The appellants also argue that the applied references contain no teaching or suggestion concerning a major amount of cold-water insoluble hydrolysate and a minor

amount of a cold-water soluble hydrolysate as required by certain of the above noted claims. However, the majority of Lenchin's hydrolysate is unquestionably cold-water insoluble (e.g., see lines 29 through 51 in column 5). Moreover, since patentee does not disclose a desire to or mechanism for removing water soluble forms of the hydrolysate, a reasonable basis exists for concluding that his hydrolysate inherently and necessarily must contain at least some quantity in cold-water soluble form (which is all that is needed to satisfy the claim requirement of "a minor amount").

Where, as here, the claimed and prior art products are identical or substantially identical, or are produced by identical or substantially identical processes, the Patent and Trademark Office (PTO) can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product. Whether the rejection is based on "inherency" under 35 U.S.C. § 102, on "prima facie obviousness" under 35 U.S.C. § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977).

Finally, as a matter of clarification, we observe that the appellants have presented arguments relating to a yield stress range limitation which is required by certain of the claims on appeal. None of the claims here under review, however, require this feature. At most, claim 65 simply requires that the composition defined thereby be capable of exhibiting such a yield stress range when subjected to dispersion and fragmentation under certain conditions. Because the composition of claim 65 is not otherwise distinguishable as argued by the appellants from the composition of Lenchin, it is again appropriate to believe that patentee's composition necessarily and inherently possesses the capabilities of the claim 65 composition and to require that the appellants prove otherwise. In re Best, id.

In summary, the here claimed compositions appear to be identical to the compositions of the applied prior art, specifically, the granular starch hydrolysates of Lenchin, and the appellants have not carried their burden of showing otherwise. We shall, therefore, sustain the examiner's § 103 rejection of composition claims 26 through 30 and 62 through 65.

The rejection of claims 1, 2, 31 through 61, and 66 through 104

Notwithstanding the generality of the examiner's aforequoted obviousness conclusion, it is her basic position that it would have been obvious for one with ordinary

skill in the art to use the fragmented amylose hydrolysate of Battista as a fat/oil replacer in food formulations in light of the other applied prior art. More particularly, the examiner expresses on page 7 of the Answer the viewpoint that "Battista et al teach a starch hydrolyzate [sic], which in view of Morehouse, is usable in food products as a fat replacer." We do not agree.

The Battista publication constitutes a research report on several novel microcrystalline colloidal products made from a variety of materials including cellulose, amylose, collagen, nylon, and chrysotile mineral silicates. While Battista discloses hydrolyzing and disintegrating amylose to thereby produce an unusually stable amylose gel, there is utterly no disclosure in this publication of using the amylose gel as a food additive generally or a fat/oil replacer specifically. We recognize that the other applied references, such as Morehouse, teach starch hydrolysates generally as fat/oil replacers. Nevertheless, we agree completely with the appellants' position that "[a] person skilled in the art would have no motivation to combine Battista's teachings with those of Cain, Morehouse, Anter, or Lenchin, because none of them give any hint that there might be any advantage in using a **fragmented** starch hydrolysate for fat replacement" (Brief, pages 12-13; emphasis in original). Stated otherwise, the

examiner has supplied no reasoning much less evidence in support of the proposition that an artisan with ordinary skill would have been motivated to subject starch hydrolysates intended for use as fat/oil replacers to a disintegration or fragmentation step.

On the record before us, it is only the appellants' own specification which discloses a reason for fragmenting starch hydrolysate, fat/oil replacers. As a result, we are convinced that the examiner's rejection is based upon impermissible hindsight derived from the appellants' disclosure rather than some reason, suggestion, or incentive derived from the applied prior art. See Carella v. Starlight Archery & Pro Line Co., 804 F.2d 135, 140, 231 USPQ 644, 647 (Fed. Cir. 1986) and Ex parte Chicago Rawhide Mfg. Co., 223 USPQ 351, 353 (Bd. App. 1984).

In light of the foregoing, we cannot sustain the examiner's § 103 rejection of claims 1, 2, 31 through 61, and 66 through 104 since each of these claims recites features obtainable only by combining Battista with the other applied references and since the examiner has proffered no acceptable reasoning or evidence in support of such a combination.

The decision of the examiner is affirmed-in-part.

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

AFFIRMED-IN-PART

Edward C. Kimlin Administrative Patent Judge	)	
Bradley R. Garris Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
Charles F. Warren Administrative Patent Judge	)	

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