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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 9

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YIGAL PELEG
and DAVID R. POPP

Appeal No. 95-1168
Application 07/951,992[1]

ON BRIEF

Before WEIFFENBACH, PAK and OWENS, *Administrative Patent Judges.*

WEIFFENBACH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 11-17, the only claims remaining in the application. We reverse.

[1] Application for patent filed September 28, 1992

The Claimed Subject Matter

The claims on appeal are directed to a pie crust dough having reduced fat content and to a method of making the same by replacing a portion of the fat component with added starch and an increased amount of water. In a preferred embodiment, the conventional plastic fat component of the pie crust dough can be replaced with an aqueous emulsion of a liquid vegetable oil and a plastic animal and/or vegetable fat. Claims 11 and 14 are illustrative of subject matter appellants regard as their invention:

> 11. A method for reducing the added fat or shortening content of a pie crust dough containing a fat or shortening component, flour and water while maintaining the desired texture characteristics of the dough which comprises replacing at least a portion of the fat or shortening component in the dough with added starch and an increased amount of water to provide a dough having a reduced fat content with the dough containing between about 55%-65% by weight flour, 5%-25% by weight of a fat component, 1%-8% by weight added starch and 10%-25% by weight water.
>
> 14. A pie crust dough having a reduced fat content especially useful on pies which are frozen after preparation, which comprises between about 55%-65% by weight flour, 5%-25% by weight of a fat component, 1%-8% by weight starch and 10%-25% by weight water, with the fat component comprising approximately equal amounts of a liquid vegetable oil and a plastic fat selected from the group consisting of plastic animal/vegetable fats, plastic shortening, and mixtures thereof.

The Prior Art

The following prior art references are relied upon by the examiner in support of the rejections of the claims:

Kriz et al. (Kriz)	3,985,911	Oct. 12, 1976
Petrizzelli	4,904.493	Feb. 27, 1990

Petrizzelli discloses a pie crust or pastry dough which contains inactivated flour[2] having increased shelf life and having improved quality in that when the dough is baked, it closely resembles home-made dough with respect to texture, appearance and taste (col. 1, lines 6-13 and col. 1, line 67 to col. 2, line 2). The dough product contains 30-40% inactivated cereal flour, 13-20% starch, 15-25% fats, 15-25% sugar, 5-10% water, 2-5% glycerol or alternatively 4-7% sorbitol, and sufficient amounts of flavoring agents and salt (col. 2, lines 27-33). Optionally, the fat component may be combined with a fat emulsifying agent in an amount up to about 1% by weight of the final product (col. 2, lines 33-36 and col. 3, lines 20-25). The starch component lowers the water activity of the product (col. 3, lines 10-12) while the fat component confers "plasticity on the dough" (col. 3, lines 19-20).

Kriz is directed to an improvement in the production of pastry shortening used in making roll-in pastry dough products such as Danish pastry (col. 1, lines 12-16). The process comprises the steps of (i) compounding a shortening from vegetable fats and mixtures of animal and vegetable fats, (ii) maintaining the shortening in a molten and liquid state, (iii) feeding the shortening through an elongated scraped wall, heat exchange zone, wherein the shortening is rapidly chilled to nucleate and develop beta-prime crystal nuclei in the shortening, (iv) simultaneously kneading and removing heat from the resulting nucleated shortening to further develop beta-prime crystalline phases with concomitant thickening, and (v) extruding the plastic shortening mass from heat exchange zone to

[2] Inactivated flour according to Petrizzelli is flour that has been heat treated to eliminate alpha-amylasic activity and substantially reduced lipasic and peroxidasic activity (col.2, lines 40-60).

form a tough, plastic, flexible, untempered pastry shortening which is functional over the temperature range of 50EF to 90EF for pastry preparation (col. 3, lines 6-42). The "extrudable shortening mass can be extruded or 'filled' directly into user packages in the form of blocks, sheets or other desired shape and is ready for immediate use" (col. 3, lines 46-49). According to Kriz, the presence or absence of water in the shortening is a matter of choice. However, Kriz states that

> the pastry shortening can contain 0 to about 15 parts (and usually about 1 to 10 parts) by weight water per 100 parts of shortening without detracting from functionality. When water is employed, an emulsifier such as mono- and/or diglycerides is usually employed to maintain a dispersion between the aqueous and organic phases. [Col. 5, lines 27-33.]

The Rejections

Claim 11 stands rejected under 35 U.S.C. § 103 as being unpatentable over Petrizzelli. While the examiner recognizes that Petrizzelli discloses a higher range of starch in the dough than that recited in the claim on appeal and that Petrizzelli does not teach using starch to replace a portion of the fat component of the dough, nevertheless, the examiner concludes that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to vary the amount of starch if so desired since the starch of Petrizzelli is performing the same function as the starch of Petrizzelli while providing a reduced fat dough" (final rejection, ¶2, Paper No. 5).

Claims 12-17 stand rejected under 35 U.S.C. § 103 as being unpatentable over Petrizzelli in view Kriz. The examiner finds that Kriz discloses a shortening useful in pastry comprised of liquid and plastic fats and, therefore, concludes that "it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a combination of fats as disclosed by Kriz et al. in the pastry of Petrizzelli et al. since Kriz et al. discloses such as conventional and well known in making pastry" (final rejection, ¶3, Paper No. 5).

Opinion

We have carefully considered the respective positions advanced by appellants and the examiner. However, for the reasons set forth below, we will not sustain either of the examiner's rejections for obviousness under 35 U.S.C. § 103.

The examiner rejected claim 11 under 35 U.S.C. § 103 as being unpatentable over Petrizzelli. It is well settled that every claim limitation must be considered in determining patentability. *In re Geerdes*, 491 F.2d 1260, 1262-63, 180 USPQ789, 791 (CCPA 1974). In response to the appellants' arguments on appeal on pages 4 and 5 of the answer, the examiner stated that

> ... it is clear from Petrizzelli that each of Appellant's [sic] ingredients are disclosed by Petrizzelli and are performing their art recognized function. Accordingly, Appellant's [sic] have not shown any criticality to the amounts of other well known ingredients such as starch, flour, and water, and has therefore not overcome the prima facie case of obviousness since if the starch of Appellants [sic] formulation acts as a fat then the starch of Petrizzelli will inherently perform the same function.

While Petrizzelli appears to disclose a low fat pie crust or pastry dough composition because the fat content of Petrizzelli's composition (15-25%) is encompassed by the composition defined by the

claims on appeal, the claims on appeal also require the composition to contain between about 55-65% by weight flour and 1-8% by weight starch. The flour content of Petrizzelli's composition, 30-40%, is lower than that recited in appellants' claims while the starch content 13-20%, is higher than that recited in the claims on appeal. Other than stating that the starch component "lowers the water activity of the product" (Petrizzelli, col. 3, lines 10-12), Petrizzelli provides no information regarding the relationship of flour and/or starch to the fat content of the dough composition such that the flour and starch ranges set forth in the claims would have been obvious to one having ordinary skill in the art. Furthermore, the examiner has not provided any analysis of Petrizzelli as to why the higher amount of starch in the Petrizzelli dough composition would inherently perform the same function as the amount of starch claimed herein. In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Intf. 1990). From the teachings of the reference, we find no motivation which would have led one skilled in the art to the ranges for flour and starch set forth in the claims on appeal. Accordingly, the rejection of claim 11 as being obvious over Petrizzelli is reversed. Since the Kriz reference does not cure the deficiencies of Petrizzelli, we also reverse the rejection of claims 11-17 for obviousness over Petrizzelli and Kriz.

For the foregoing reasons, we conclude that the examiner has not made out a *prima facie* case

of obviousness in either rejection. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). Accordingly, the examiner's rejections of claims 11-17 under 35 U.S.C. § 103 are reversed.

REVERSED

CAMERON WEIFFENBACH)
Administrative Patent Judge)
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) BOARD OF PATENT
) APPEALS
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