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HARNESS, DICKEY & PIERCE, P.L.C.
P.O. BOX 8910
RESTON, VA 20195

EXAMINER	
KHARE, ATUL P	

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte AKIO OZASA, AKIHISA HASHIMOTO, and
SHINJI TANAKA

Appeal 2010-010024
Application 12/230,691
Technology Center 1700

Before BRADLEY R. GARRIS, TERRY J. OWENS, and
KAREN M. HASTINGS, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 13-34, which are all of the pending claims. We have jurisdiction under 35 U.S.C. § 6(b).

The Invention

The Appellants claim a method for making a biodegradable molded article. Claim 13 is illustrative:

13. A method for producing a biodegradable molded article, comprising the steps of:

directly heating a molding material by dielectric heating to form a biodegradable expanded molded article, the biodegradable expanded molded article being molded in a specified shape with an irregular surface by steam expansion molding of the molding material, and

simultaneously thermally softening a coating film and attaching the thermally softened coating film to the irregular surface of the biodegradable expanded molded article so as to maintain the irregular surface of the biodegradable expanded molded article,

wherein the coating film is mainly made of a biodegradable plastic and having at least hydrophobicity, the molding material is a slurry or dough molding material mainly made of a starch or a starch derivative and prepared by adding water to the starch or the starch derivative, and the starch or the starch derivative contains high-amylose starch or high-amylose starch derivative.

The References

Altieri	5,153,037	Oct. 6, 1992
Ando	5,639,518	Jun. 17, 1997
Doane	5,861,216	Jan. 19, 1999
Bradt	5,888,599	Mar. 30, 1999
Shogren	6,146,573	Nov. 14, 2000
Lörcks	CA 2,143,432	Nov. 28, 2000

The Rejections

The claims stand rejected under 35 U.S.C. § 103 as follows:

claims 13, 16, 18-24, 27, and 29-34 over Lörcks in view of Doane and Ando,

claims 14 and 15 over Lörcks in view of Doane, Ando, and Altieri, claims 17 and 28 over Lörcks in view of Doane, Ando, and Bradt, and claims 25 and 26 over Lörcks in view of Doane, Ando, and Shogren.

OPINION

We reverse the rejections. We need to address only the independent claims, i.e., claims 13 and 24.[1] Those claims require heating a molding material to form a biodegradable expanded molded article having an irregular surface, and simultaneously thermally softening a coating film and attaching it to the irregular surface so as to maintain the irregular surface. For that claim requirement the Examiner relies upon Lörcks (Ans. 4).

Lörcks foams and cures starch to form a layer and simultaneously combines it with an additional layer of a further laminate material in an expansion molding apparatus at 180-270ºC to obtain a laminated composite material (pp. 2, 5-6, 10). The further laminate material can be a synthetic or biopolymeric film (pp. 3, 7).

The Examiner argues that "although Lorcks does not explicitly disclose thermal softening of the laminate composite material, the Lorcks molding temperature of 220ºC is sufficient to cause softening of many or all of the laminate composite materials of Lorcks, including synthetic films" (Ans. 13).

Lörcks does not disclose any particular synthetic film materials. Thus, Lörcks does not appear to provide a basis for the Examiner's argument that a molding temperature of 220ºC is sufficient to soften many or all of Lörcks' synthetic film materials, and the Examiner has not established such a basis.

[1] The Examiner does not rely upon any disclosure in Altieri, Bradt or Shogren which remedies the deficiency in the references applied to the independent claims (Ans. 8-10).

The Examiner argues that the Appellants' Specification states that "the softening point of the coating film 12 is preferably not less than 130ºC, and more preferably not less than 150ºC" (Spec. 56:1-3), and that Lörcks' "laminate material can be made from a synthetic film, and is included in the mold during the foaming process, which would inherently thermally soften the film as required by the claim (page 3)" (Ans. 4)

An inherent characteristic must be inevitable, and not merely a possibility or probability. *See In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981). The Examiner has not established that Lörcks discloses the coating film in the relied-upon portion of the Appellants' Specification or that Lörcks' synthetic coating film inevitably thermally softens instead of remaining unsoftened at the molding temperature.

Hence, the Examiner has not established a prima facie case of obviousness of the Appellants' claimed method.

DECISION/ORDER

The rejections under 35 U.S.C. § 103 of claims 13, 16, 18-24, 27, and 29-34 over Lörcks in view of Doane and Ando, claims 14 and 15 over Lörcks in view of Doane, Ando, and Altieri, claims 17 and 28 over Lörcks in view of Doane, Ando, and Bradt, and claims 25 and 26 over Lörcks in view of Doane, Ando, and Shogren are reversed.

It is ordered that the Examiner's decision is reversed.

REVERSED

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