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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/511,595	08/28/2006	Michael Dubrovsky	87219.00002	1210
45159	7590	01/30/2013	EXAMINER	
SQUIRE SANDERS (US) I.L.P. 275 BATTERY STREET, SUITE 2600 SAN FRANCISCO, CA 94111-3356			YOO, HONG THI	
			ART UNIT	PAPER NUMBER
			1793	
			NOTIFICATION DATE	DELIVERY MODE
			01/30/2013	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* MICHAEL DUBROVSKY

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Appeal 2011-007421  
Application 11/511,595  
Technology Center 1700

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Before RICHARD E. SCHAFER, CATHERINE Q. TIMM, and  
JEFFERY T. SMITH, *Administrative Patent Judges*.

SCHAFER, *Administrative Patent Judge*.

DECISION ON APPEAL

Michael Dubrovsky (Applicant) appeals from an Examiner's decision rejecting claims 1 and 4-24. 35 U.S.C. §§ 6(b) and 134(a). We affirm-in-part.

**The Claimed Subject Matter**

The invention has two aspects. The first is directed to a chewing gum base that contains polymer particles having a size of 200-2000  $\mu\text{m}$ . The polymer particles are said to fibrillate—break down into fibers—when the gum is subject to

shear stresses due to chewing. The second aspect is a method having the steps of providing a chewing gum base polymer, adding 5-25 wt % of a biocompatible fibrillateable particulate polymer having a particle size of 200 – 2000  $\mu\text{m}$  and applying a shear force to form a homogeneous dispersion of fibrillated polymer in the base.

*Exemplary Claims*

Claim 1

1. A chewing gum base, comprising a biocompatible particulate polymer having an average particle size of about 200  $\mu\text{m}$  to about 2,000  $\mu\text{m}$ , wherein the particles fibrillate when subjected to a shear stress imposed by chewing.

Claim 15

15. A method, comprising:  
    providing a chewing gum base polymer or mixture of polymers;  
    adding to the chewing gum base polymer or mixture of polymers from about 5 wt% to about 25 wt% of a biocompatible particulate polymer that fibrillates when subjected to a shear force; wherein  
        the biocompatible particulate polymer comprises particles of an average particle size of about 200  $\mu\text{m}$  to about 2,000  $\mu\text{m}$   
    applying a shear force to the mixture of chewing gum base polymer or mixture of polymers and the biocompatible particulate polymer to form a substantially homogeneous dispersion of fibrillated biocompatible polymer in the chewing gum base polymer or mixture of polymers.

Brief 12-13 (Claims Appendix).

**Rejections**

In the Answer, the Examiner maintained the following rejections:

1. Claims 1-4, 10, and 11 under 35 U.S.C. §102(b) over Rutherford,<sup>1</sup> as evidenced by Kamen;<sup>2</sup>
2. Claims 5-9, 12, 13, 15-18, and 19 under 35 U.S.C. § 103(a) over Rutherford, as evidenced by Kamen, in view of Ishida;<sup>3</sup>
3. Claims 13, 14, 21-23, and 24 under § 103(a) over Rutherford, as evidenced by Kamen, in view of Ishida and Woznicki;<sup>4</sup>
4. Claims 1, 4-6, 10-12, 15, 16, 19, and 20 under § 103(a) over Hightower,<sup>5</sup> as evidenced by Kamen, in view of Rutherford;
5. Claims 7, 8, 9, 17, and 18 under § 103(a) over Hightower, as evidenced by Kamen, in view of Rutherford and Ishida;
6. Claims 13, 14, and 21-24 under § 103(a) over Hightower, as evidenced by Kamen, in view of Rutherford and Woznicki;
7. Claims 1, 4-12, 15, 17, and 18 under § 103(a) over Ishida, as evidenced by Kamen, in view of Rutherford; and
8. Claims 13, 14, 21-23, and 24 under § 103(a) over Ishida, as evidenced by Kamen, in view of Rutherford and Woznicki.

## **Decision**

### **The rejection of Claims 1, 4, 10, and 11 as anticipated by Rutherford as evidenced by Kamen**

Applicant contends that Claims 1-4, 10 and 11 are not anticipated by Rutherford. (App. Br. 5-7). Specifically, Applicant says that Rutherford does not

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<sup>1</sup>U.S. Patent 5,116,627, patented May 26, 1992.

<sup>2</sup>U.S. Patent 5,416,156, patented May 16, 1995.

<sup>3</sup>U.S. Patent 3,285,750, patented Nov. 15, 1966.

<sup>4</sup>U.S. Patent 4,802,924, patented Feb. 7, 1989.

<sup>5</sup>U.S. Patent 5,525,361, patented Jun. 11, 1996.

provide a description relating to particles that fibrillate when subject to shear stresses. (App. Br. 6).

Rutherford teaches a gum base that includes, *inter alia*, insoluble polymer beads or particles dispersed in water soluble polymer matrix. These particles are represented as particles 221 and 221A in Rutherford's Figures 4-6. Rutherford, 13:48-68. Rutherford teaches that the average particle size for the insoluble particles should not be above 500  $\mu\text{m}$  and may average 100-400  $\mu\text{m}$ . Rutherford, col. 8, ll. 1-10. Polyethylene, polypropylene and copolymers of ethylene and  $\alpha$ -olefins are described, *inter alia*, as suitable insoluble polymers. Rutherford, col. 9, ll. 39-42. Rutherford's Example I describes a gum that includes 5 grams of low density polyethylene. Rutherford, col. 17, l. 30 – col. 18, l. 2.

As correctly noted by Applicant, Rutherford does not describe fibrillation. Anticipation, however, does not require that the reference teach what the Applicant teaches, it is only necessary that the claim "read on" something disclosed in the prior art. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772 (Fed. Cir. 1983).

The Examiner recognized this lack of description of fibrillation in Rutherford and found that it was a property of certain polymers including polyethylene, polypropylene and copolymers of ethylene with  $\alpha$ -olefins used by Rutherford. Answer 4. The Examiner relied upon Kamen as evidence supporting this finding. Kamen teaches that some polymers fibrillate when subject to shear and other pressure conditions. Kamen, col. 3, ll. 25-30. The polymers taught to be fibrillatable include polyethylene, polypropylene, and copolymers of ethylene and  $\alpha$ -olefins. Kamen, *id.* at ll. 59-63. Indeed, the Examiner's finding is consistent with Applicant's Specification: "As used herein, 'fibrillate' refers to the property of some particulate polymers to form microscopic elongate fibrils when subjected to a shear force." Specification 9. In this regard, we also note that Applicant's

Specification does not teach that any special treatments or procedures are required to impart fibrillatability to the polymers. The Examiner's finding that fibrillation is a property of polyethylene, polypropylene and copolymers of ethylene with  $\alpha$ -olefins during the application of shear and other pressure forces is supported by a preponderance of the evidence.

Thus, when Rutherford's teachings are considered along with Kamen's disclosure, Rutherford describes gum bases that include polymers that fibrillate when subject to shear forces. The fact that Rutherford did not recognize that the polymers would have this property is not dispositive of patentability. The recognition of an additional or previously undisclosed property of an old composition does not make that composition new in the sense of 35 U.S.C. § 102(b). *In re Gleave*, 560 F.3d 1331, 1338 (Fed. Cir. 2009) (“[t]he discovery of a new property or use of a previously known composition, even when that property and use are unobvious from the prior art, can not impart patentability to claims to the known composition” *quoting In re Spada*, 911 F.2d 705, 708 (Fed. Cir. 1990)). Rutherford describes compositions that fall within the scope of the subject matter of Applicant's Claim 1.

We affirm the Examiner's decision rejecting Claim 1 under 35 U.S.C. § 102(b). As Applicant has not relied on the additional subject matter of Claims 2-5, 10, and 11, to distinguish those claims from Rutherford, the rejection of those claims is affirmed as well. 37 C.F.R. § 41.67(c)(1)(vii).

**The rejection of Claims 1, 4-6, 10-12, 15, 16, 19, and 20 under 35 U.S.C. § 103(a) over Hightower, as evidenced by Kamen in view of Rutherford**

The Examiner found that Hightower discloses gum compositions and processes for making chewing gum that includes a gum base having polyethylene and ethylene copolymers. Answer 10. The Examiner also found that the

difference between Rutherford and the claimed invention was the use of the polymer particles having a size of 200 to 2000  $\mu\text{m}$ . Answer 11. Rutherford was relied upon for disclosing the use of polymer particles in a gum base including polyethylene and polyethylene copolymers within the particle size claimed.

Answer 11. The Examiner concluded:

It would have been obvious to a person of ordinary skill in the art at the time of the invention to combine Hightower and Rutherford because both inventions use similar polymers of polyethylene and ethylene copolymers in a chewing gum base. Rutherford illustrates known and useful particles sizes in chewing gum formulations. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use the particles sizes of Rutherford in the gum of Hightower because the content disclosed in Rutherford's particulate size enhances the desired release of flavor in a polymer matrix, for a more organoleptic quality upon consumption (col. 8, lines 11-21).

Answer 11-12.

Applicant does not challenge those findings and conclusions. Rather, Applicant argues that Hightower, like Kamen and Rutherford “has nothing whatsoever to do with any aspect of the instant invention.” App. Br. 9. Applicant further argues that the gum compositions taught by Hightower and Rutherford “have no nexus to the instant invention.” *Id.* Applicant then argues that one having ordinary skill in the art would not have any reason to add a fibrillatable polymer to gum compositions to affect mouth feel. Brief 9.

The Examiner relied on Kamen, in the same way he did in the anticipation rejection for the teaching that fibrillation is a property of polyethylene and polyethylene copolymers described by Hightower. Answer 10-11. As we stated previously, that finding is supported by a preponderance of the evidence.

We affirm the rejection of the subject matter of Claim 1 over the combined teachings of Hightower, Kamen, and Rutherford. Since Applicant has not separately argued the subject matter of Claims 4-6, 10-12, 15, 16, 19, and 20, we also affirm the rejection of those claims. 37 C.F.R. § 41.67(c)(1)(vii).

### **The rejections relying on Ishida**

For a number of the rejections, the Examiner relied on Ishida's teachings. *See* rejections 2, 3, 5, 7, and 8 listed above on page 3. The Examiner relied on Ishida for the disclosure of a chewing gum base including the polymers such as polyethylene and polypropylene (col. 1, lines 35-38), and the fluoropolymer, polytetrafluoroethylene (col. 1, lines 38-39) in the amounts polymers in ranges of (2 to 50%) by weight of the base (col. 2, lines 40-44). Answer 6, 8, 14, and 16.

Applicant contends that Ishida teaches away from combining its teachings with the teachings of the other references. Brief 7. In particular, Applicant argues that Ishida teaches the use of particle sizes significantly smaller than those claimed and would direct one skilled in the art away from using particle sizes in the range claimed. Brief 7.

Ishida teaches a chewing gum base that incorporates polyethylene, polypropylene or PTFE particles. Ishida adds these materials to make the gum less adherent when discarded. Ishida teaches to achieve that goal the smaller the particle size of the polymers the better. Ishida, col. 1, ll. 55-63. Ishida teaches that particles as large as 100 mesh (about 150  $\mu\text{m}$ ) are suitable, but particles having a size below 300 mesh (about 50  $\mu\text{m}$ ) is preferred. Ishida, col. 1, ll. 59-63. The Examiner does not provide a response to the particle size argument. Answer 22. We agree with the

Applicant. A preponderance of the evidence supports the Applicant's position that Ishida teaches away from combining its teachings with the other references in the manner suggested by the Examiner.

We reverse the rejections relying on the Ishida reference.

### **The rejections relying on Woznicki**

The Woznicki reference was relied upon in rejecting Claims 13, 14, and 21–24. *See* rejections 3, 6, and 8, listed above on page 3. Each of these claims requires that a layer or bolus of the specific chewing gum base specified in Claims 1 or 15 be dispersed over at least a portion of the surface of a commercial chewing gum. The Examiner found that Woznicki teaches over coating confections such as chewing gum with a polydextrose based coating. Answer 10. Applicant argues that Woznicki uses specific coatings which are unlike the gum base coatings required by these claims and would not suggest applying the claimed gum base to a commercial chewing gum. Brief 8.

We agree with Applicant. The fact that it is known to coat commercial gum products with a polydextrose, does not provide a sufficient reason to apply the claimed gum base to a commercial gum formulation.

We reverse the rejections of Claims 13, 14, and 21 to 24.

### **Decisions**

We affirm the following rejections:

1. The rejection of Claims 1, 4, 10, and 11 under 35 U.S.C. §102(b) as anticipated by Rutherford as evidenced by Kamen;
2. The rejection of Claims 1, 4-6, 10-12, 15-16, and 19-20 under 35 U.S.C. § 103(a) over Hightower, as evidenced by Kamen, in view of Rutherford;

We reverse the following rejections:

3. The rejection of Claims 5-9, 12, and 15-19 over Rutherford, as evidenced by Kamen, in view of Ishida;

4. The rejections of Claims 13, 14, and 21-24 under 35 U.S.C. § 103(a) over (1) Rutherford, as evidenced by Kamen, in view of Ishida and Woznicki; (2) Hightower, as evidenced by Kamen, in view of Rutherford and Woznicki; and (3) Ishida, as evidenced by Kamen, in view of Rutherford and Woznicki;

5. The rejection of Claims 7-9 and 17-18 over Hightower, as evidenced by Kamen, in view of Rutherford and Ishida;

6. The rejection of Claims 1, 4-12, 15, 17, and 18 over of Ishida, as evidenced by Kamen in view of Rutherford.

In summary, we have sustained rejections of Claims 1, 4-6, 10-12, 15, 16, and 19-20. Those claims, on the record before us, remain unpatentable. We have reversed rejections of Claims 7-9, 13, 14, 17, and 21-24. On the record before us, those claims have not been shown to be unpatentable.

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

AFFIRMED IN PART

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