UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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*Ex parte* CHRISTIANA SOLDANI

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Appeal 2008-4029
Application 11/314,042
Technology Center 1700

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Decided: December 04, 2008

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Before BRADLEY R. GARRIS, PETER F. KRATZ, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

KRATZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Examiner's final rejection of claims 13-17. We have jurisdiction pursuant to 35 U.S.C. § 6.

## STATEMENT OF THE CASE

Appellant's claimed invention is directed to a confectionary product comprising one or more sugar alcohols and at least one acidic component wherein the water content is below 3 percent. Appellant's product is claimed to be a glassy amorphous solid that has allegedly improved transparency compared to a glassy amorphous solid that does not contain an acid, as evidenced by transmission properties at specified wavelengths recited in claim 13 (the sole independent claim on appeal). Claim 13 is illustrative and reproduced below:

> 13. A confectionery product comprising a glassy amorphous solid comprising one or more sugar alcohols and at least one acidic component, the glassy amorphous solid having a water content below 3% and an improved transparency compared to a glassy amorphous solid that does not contain an acid, as evidenced by a transmission of:
>
> at least 47.8% at 450 nm; and/or
>
> at least 50.9% at 550 nm; and/or
>
> at least 52.3% at 650 nm.

The Examiner relies on the following prior art references as evidence in rejecting the appealed claims:

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|---|---|---|
| Rivier (Rivier I) | EP1151672 A1 | Jul. 11, 2001 |
| Rivier (Rivier II) | EP1151673 A2 | Jul. 11, 2001 |

The Examiner maintains the following rejections:

Claims 13-17 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Rivier I. Claims 13-17 stand rejected under 35 U.S.C. § 102(a) as being anticipated by Rivier II.

The claims are argued together as a group. Accordingly, we select claim 13 as the representative claim on which we shall decide this appeal as to both anticipation grounds of rejection before us.

## ISSUES AND SUMMARY DECISION

The principal issue with respect to each of the stated anticipation rejections developed by the appeal record is capsulated in the following question. Has Appellant established that none of the confectionary products described by Rivier I and Rivier II possess a transparency property corresponding to the appealed claim 13 confectionary product transparency requirements based on the submitted Declaration[1] and the Specification evidence and thereby shown reversible error in the Examiner's anticipation rejection over each applied reference?

We answer this question in the negative as to each of the applied references separately. Therefore, we affirm the Examiner's Decision as to both stated grounds of rejection for substantially the reasons set forth in the Examiner's Answer and below.

## PRINCIPLES OF LAW

The factual determination of anticipation requires the disclosure in a single reference of every element of the claimed invention, either explicitly or inherently. *See In re Schreiber*, 128 F.3d 1473, 1477 (Fed. Cir. 1997). Anticipation by a prior art reference does not require that the reference

[1] Appellant incorrectly labels the submitted Declaration under 37 C.F.R. § 1.132 by Christiana Soldani (the named inventor) as an Affidavit (App. Br.; Exhibit E).

recognize either the inventive concept of the claimed subject matter or the inherent properties that may be possessed by the prior art reference. *See Verdegaal Bros. Inc. v. Union Oil Co.*, 814 F.2d 628, 633 (Fed. Cir.), *cert. denied*, 484 U.S. 827 (1987). Also, *see In re Best*, 562 F.2d 1252, 1255 (CCPA 1977)

> Where, as here, the claimed and prior art products are identical or substantially identical….the PTO can require an applicant to prove that the prior art products do not necessarily or inherently possess the characteristics of his claimed product…its fairness is evidenced by the PTO's inability to manufacture products or to obtain and compare prior art products.

Moreover, "[T]here is nothing intrinsically wrong with [defining something by what it does rather than what it is] in drafting patent claims." *In re Schreiber*, 128 F.3d at 1478. "Yet, choosing to define an element functionally, i.e., by what it does, [or can do,] carries with it a risk." *Id*. As our reviewing court stated in *Schreiber*, 128 F.3d at 1478 *quoting In re Swinehart*, 439 F.2d 210, 213 (CCPA 1971):

> [W]here the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on.

Anticipation is a factual determination. *See In re Baxter Travenol Labs.*, 952 F.2d 388, 390 (Fed. Cir. 1991) (citing *In re Bond*, 910 F.2d 831, 833 (Fed. Cir. 1990)).

RELEVANT FACTUAL FINDINGS (FF)

1. The Examiner has correctly found that, like Appellant's claim 13 confection, Rivier I discloses a glassy amorphous solid confectionary product comprising an acid component and at least one sugar alcohol-containing component, with the confection having a water content less than 3 percent by weight (Rivier I, ¶ ¶ 0016, 0017, 0028, and 0029; Ans. 4).

2. Also, the Examiner has correctly found that Rivier II similarly discloses a glassy amorphous solid confectionary product that comprises an acid component and at least one sugar alcohol–containing component (Rivier II, ¶ ¶ 0052-0053; Ans. 5).

3. Rivier II discloses that the confection has a final moisture (water) content less than 3 weight percent (Rivier II, ¶ ¶ 0054, 0059, 0074, 0077).

4. Based on the correspondence between the acid-containing confection product of Rivier I or Rivier II with Appellant's claim 13 confection, the Examiner has correctly made the inferential factual finding that the acid and sugar alcohol containing confection product described by Rivier I or the products described by Rivier II would have been expected, prima facie, to intrinsically possess a light transparency property (functionality) corresponding to that recited in Appellant's claim 13 (Ans. 5).

5. Appellant provides an example (Example 1) of a product said to be according to the invention (Spec. 7-8). In this Example, the product is described as being made using 50kg of water, 25 kg of a specified maltitol syrup, 125 kg of a specified Isomalt. The batch is mixed and heated to a temperature of 80°C. Then, 1 kg of a specified citric acid, 1.4 kg of a specified malic acid, and 0.2 kg of Acesulfame K are added for forming the

casing premix of the confection. The casing premix is subjected to heating progressively in two evaporators in series up to a temperature of 138°C, subjected to vacuum flashing, then cooling, and is subsequently filled with a specified filling, all in a specified manner.

6. Appellant provides an example (Example 2) of a product, which is said to have been made as a comparison example, from substantially the same ingredients as used in Example 1 (Spec. 8). However, the acid addition occurs after the steps of subjecting a casing batch mix to several heating steps, including a heating step above 145 °C (cooking) in an evaporator, a vacuum application step, and a discharge on a cooling table step. Subsequently, the casing is filled with a specified filling.

7. Appellant provides an Example 3 specifying how light transmission properties for an average of six samples of outer casings of products made according to Examples 1 and 2 are determined with an analysis model (Spec. 8-11). The results, including standard errors, are determined for each of the samples and presented in Table 1 as an average for samples made in accordance with each Example at a number of wavelengths, and with a plot provided in drawing Figure 3 (Spec. 8-11; Fig. 3).

8. Table 1 of the Specification reports that the six samples of product casings made in accordance with Example 1 demonstrated an average transmission of: (a) 48.43 percent at 450 nm wavelength, (b) 51.90 percent at 550 nm wavelength, and (c) 53.07 percent at 650 nm wavelength with respective standard errors of 0.85, 0.89, and 0.94 percent (Spec. 11). The six samples of product casings made in accordance with comparison Example 2 demonstrate an average transmission of: (d) 45.70 percent prepared at 450 nm wavelength, (e) 48.85 percent at 550 nm wavelength,

and (f) 50.32 percent at 650 nm wavelength with respective standard errors of 2.11, 2.02, and 1.94 percent. Id.

9. Rivier I provides an Example wherein a confection product casing recipe includes 80 percent isomalt, 10 percent maltitol syrup and 10 percent water (¶ 0028). The batch is cooked until 145 °C temperature is reached and discharged on a cooling table where 1 percent of citric acid, 0.15 percent lemon flavor, 0.8 percent Acesulfame K are added and the ingredients are mixed until forming a plastic mass, and then subjected to a filling process (Rivier I, ¶ ¶ 0028 - 0030).

10. Rivier II provides Examples 1 and 2 wherein a confection product casing recipe includes 80 kg isomalt, 10 kg maltitol syrup and 10 kg water that is heated under 60 percent vacuum until reaching a cooking temperature of 155 °C (¶ ¶ 0074 and 0077). The resulting cooked mass is flavored, colored, acidified and cooled down to 70 °C and a batch roller is charged therewith and the mass is then subjected to a filling process (Rivier II, ¶ ¶ 0074 -0077).

11. The Declaration under 37 C.F.R. § 1.132 by Christiana Soldani does not present any additional experimental evidence to that presented in the subject Specification (App. Br., Exhibit E).

12. Christiana Soldani states, *inter alia*, in the Declaration under 37 C.F.R. § 1.132 that:

> 5. As summarized in the Examples and Figures of the present disclosure, the addition of acidic components of a hard candy at the beginning of the manufacturing process, including the cooking stage, results in a hard candy having a greater transmission than a hard candy produced by a process wherein the acidic components are added during the cooling stage

that follows cooking. More specifically, Figure 3 and Table 1 of the present specification illustrate the surprisingly high transmission that is achieved when the acidic components of Example 1 was added during the cooking stage, as opposed to the process of Example 2 wherein the acidic components are added during a subsequent cooling stage. Therefore, although Examples 1 and 2 comprise hard candies having similar ingredients, a surprisingly high transmission is achieved by the addition of the acidic components of a hard candy at the beginning of the manufacturing process.

6. *Rivier I* fails to disclose or suggest a glassy amorphous solid having an improved transparency as evidenced by a transmission of at least 47.8% at 450 nm; and/or at least 50.9% at 550 nm; and/or at least 52.3% at 650 nm. In fact, at no place in the disclosure does *Rivier I* even recognize any glassy amorphous solid having a specific transmission, let alone the improved transmission of the glassy amorphous solid as described herein above.

7. *Rivier I* teaches a conventional process for producing confectionery products wherein acidic components are added after cooking. Specifically, *Rivier I* teaches a casing whose recipe is composed by 80% isomalt, 10% maltitol syrup and 10% water that is cooked to high final solids until 145°C. The mass is then put in batch under a slight vacuum (0.9 atm.) for 3 minutes. The cooked mass is then discharged on a cooled table and 1% citric acid, 0.15% lemon flavour, 0.8% Acesulfame K are added. The ingredients are mixed until a plastic mass is formed. This mass at 75°C is then introduced in the batch roller. This process will not result in a glassy amorphous solid having an improved transparency as evidenced by a transmission of at least 47.8% at 450 nm; and/or at least 50.9% at 550 nm; and/or at least 52.3% at 650 nm. In fact, because *Rivier I* teaches a conventional process for

producing confectionery products wherein acidic components are added after cooking, the resulting transmission will be less than the presently claimed transmission of at least 47.8% at 450 nm; and/or at least 50.9% at 550 nm; and/or at least 52.3% at 650 nm. Because *Rivier I* teaches that the acidic components are added after cooking and because *Rivier I* does not disclose improved transmission properties, *Rivier I* cannot teach the improved transmission properties of the confectionery product discussed herein above or disclosed in the present application.

8. *Rivier II* fails to disclose or suggest a glassy amorphous solid having an improved transparency as evidenced by a transmission of at least 47.8% at 450 nm; and/or at least 50.9% at 550 nm; and/or at least 52.3% at 650 nm. In fact, at no place in the disclosure does *Rivier II* even recognize any glassy amorphous solid having a specific transmission, let alone the improved transmission of the glassy amorphous solid as described herein above.

9. *Rivier II* teaches a conventional process for producing confectionery products wherein acidic components are added after cooking. Specifically, *Rivier II* teaches that a mixture of 80 Kg of isomalt F, 10 Kg of maltitol syrup and 10 Kg of water is cooked under 60% vacuum until reaching a cooking temperature of 155°C. Subsequently, the resulting cooked mass is flavoured, coloured and acidified and cooled down at 70°C. This process will not result in a glassy amorphous solid having an improved transparency as evidenced by a transmission of at least 47.8% at 450 nm; and/or at least 50.9% at 550 nm; and/or at least 52.3% at 650 nm. In fact, because *Rivier II* teaches a conventional process for producing confectionery products wherein acidic components are added after cooking, the resulting transmission will be less than the presently claimed transmission of at least

> 47.8% at 450 nm; and/or at least 50.9% at 550 nm; and/or at least 52.3% at 650 nm. Because *Rivier II* teaches that the acidic component is added after cooking and because *Rivier II* does not disclose improved transmission properties, *Rivier II* cannot teach the improved transmission properties of the confectionery product discussed herein above or disclosed in the present application.

(App. Br., Exhibit E)

13. The subject Specification and the Christiana Soldani Declaration do not furnish a comparison example testing the light transmission properties of a product confection casing made according to the Examples of either Rivier I or Rivier II.

## ANALYSIS

Appellant's proffered evidence shows that a somewhat lower average light transmission occurred at 450 nm, 550 nm, and 650 nm wavelengths for the Comparison Example 2 wherein acids were added after cooking in comparison to the alleged inventive Example 1. In Example 1, the acids were added at the beginning of the heating/cooking stages in making a product within the scope of the compositional requirements of the product required by representative claim 13 (FF 5-12). However, neither the Specification nor the Christiana Soldani Declaration under 37 C.F.R. § 1.132 specifically addresses, much less adequately explains, why a comparison with the exemplified confection products of either of the applied references (Rivier I and Rivier II) was not made (FF 12 and 13). Nor has Appellant adequately demonstrated how the single comparative exemplified product made according to the Specification Example 2 recipe and method would

accurately and necessarily reflect the relevant light transmission properties for the exemplified products described by each of the applied references. This is because the reference products' ingredients, while within the scope of the ingredient requirements of representative claim 13, are not identical to the Specification comparison Example 2 recipe. Also, the Specification Example 2 methodology is not identical to the methods of preparation described in each reference (FF 5-13). This is important given that Appellant has reported standard errors associated with the Specification Example 2 light transmission values of about two percent (FF 8; Specification Table 1). The significance of the reported standard error is underscored by observing that the alternatively required light transmission percents at 450 nm, 550 nm and 650 nm that are called for in representative claim 13 differ from the reported average light transmission percents of the comparative Example 2 by about two percent (compare representative claim 13 with FF 8).

Given the above, the Examiner has reasonably established that Rivier I and Rivier II each discloses a confectionary product corresponding to the representative claim 13 confection product requirements that would reasonably be expected to be characterized by corresponding light transmission properties (FF 1-3). Thus, Appellant has the burden of coming forward with evidence that persuasively establishes that the products of each of the applied references would not be expected to possess at least one of the light transmission properties, as specified in representative claim 13 (FF 1-4). Here, Appellants have not discharged this burden of production by the proffered evidence for reasons set forth above and in the Examiner's Answer (FF 5-13, Ans. 7-10). Accordingly, the arguments set forth in the Appeal

Brief and Reply Brief, which arguments are premised on the Specification Evidence and Soldani Declaration establishing a product difference based on the claimed light transmission properties, are not persuasive.

## CONCLUSION

Appellant has not established that the described acid and sugar alcohol containing confectionary products of Rivier I and the like products described by Rivier II would not have possessed a transparency property corresponding to the appealed claim 13 confectionary product transparency requirements based on the submitted Soldani Declaration and the referenced Specification evidence. Accordingly, Appellant has not identified reversible error in either of the Examiner's anticipation rejections.

## ORDER

The decision of the Examiner to reject claims 13-17 under 35 U.S.C. § 102(a) as being anticipated by Rivier I and to reject claims 13-17 under 35 U.S.C. § 102(a) as being anticipated by Rivier II is affirmed.

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

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