UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LARRY G. MANN, ROBERT SABIA, and DENNIS W. SMITH,
Appellants

Appeal 2008-4336
Application 10/118,780[1]
Technology Center 1700

Decided: September 08, 2008

Before EDWARD C. KIMLIN, TERRY J. OWENS, and
MARK NAGUMO, *Administrative Patent Judges*.

NAGUMO, *Administrative Patent Judge*.

DECISION ON APPEAL

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[1] Application 10/118,780, *Direct Bonding Methods Using Lithium*, filed 8 April 2002. The specification is referred to as the "780 Specification," and is cited as "Spec." The real party in interest is listed as Corning Incorporated. (Brief on Appeal (Revised), filed 10 August 2007 ("Br."), 1.)

A. Introduction

Larry G. Mann, Robert Sabia, and Dennis W. Smith ("Mann") timely appeal from the final rejection of claims 1, 3, 4, 8, 21, 23, 25, 27, 29, 30, and 32-37, which are all of the pending claims. We AFFIRM.

The subject matter on appeal relates to a process of bonding glass articles. Claim 1 is representative:

> A method of bonding to one another a surface of two glass articles, one of the surfaces including silicon, comprising the steps of:
>
> > including lithium on at least a portion of at least one of the surfaces; and
> >
> > placing the surfaces directly in contact
> >
> > > in the absence of an adhesive and
> > >
> > > at a temperature below the softening point of the surfaces to thereby bond the surfaces together;
> >
> > wherein said lithium being included on said portion of one of the surfaces is included by one selected from the group consisting of:
> >
> > > (a) absorbing a liquid mixture containing lithium ions prior to the step of placing the surfaces directly in contact; and
> > >
> > > (b) coating with a sol-gel layer containing lithium ions prior to the step of placing the surfaces directly in contact.

(Br., Claims App. 1; indentation added.)

B. The Rejections and the Rebuttal

The Examiner has maintained the following rejections:[2]

A. Claims 1 and 4 stand rejected under 35 U.S.C. § 102(b) in view of Momoda.[3]

B. Claims 3, 8, 21, 23, 25, 27, 29, 30, and 32-37 stand rejected under 35 U.S.C. § 103(a) in view of Momoda.

The Examiner finds that Momoda describes a process that meets all the limitations recited in claims 1 and 4. (Ans. 3-4.) Specifically, the Examiner finds that Momoda describes a method of bonding glass substrates together, wherein a dielectric layer is formed between the two substrates in the form of a sol-gel coating applied to one of the substrates. (Ans. 3.) The Examiner finds further that the sol-gel coating contains lithium ions. (*Id.*) Moreover, the Examiner finds that Momoda describes the substrates are contacted and heated at just above 200° C, which, the Examiner finds, corresponds to the 'temperature below the softening point of the surfaces' recited in the claims. (*Id.* at 4.) Finally, the Examiner finds that Momoda describes the creation of an anodic bond, which the Examiner characterizes as corresponding to the condition of bonding the surfaces 'in the absence of an adhesive' recited in claim 1. (*Id.*)

The Examiner finds further that Momoda describes various limitations recited in the remaining claims and concludes that the remaining claimed

[2] Examiner's Answer mailed 29 November 2007 ("Ans."), pgs. 3-4.
[3] Leslie A. Momoda, et al., *Sol-Gel Bonding Solution for Anodic Bonding*, U.S. Patent 5,989,372 (1999).

subject matter would have been obvious to a person having ordinary skill in the art. (Ans. 4-6.)

Mann argues that "[t]he method described by Momoda is completely dependent on the method known in the art as anodic bonding, a process which applicants do not use and are not claiming." (Br. 5; original emphasis not reproduced.) Mann elaborates that Momoda requires applying a voltage (Br. 5), a step that is absent, in Mann's view, from the appealed claims (*id.* at 6). Mann raises no other objections to the rejection for anticipation. In particular, Mann does not contest any of the Examiner's findings as to what Momoda discloses. (Br. 4-9.)

Regarding the rejection of claims for obviousness, Mann argues only that those rejections must fail because the claims from which they depend are patentable. (*Id.* at 9.)

C. Discussion

The burden is on Mann, as the Appellant, to prove reversible error in the Examiner's rejections. *See Gechter v. Davidson*, 116 F.3d 1454, 1460 (Fed. Cir. 1997) ("[W]e expect that the Board's anticipation analysis be conducted on a limitation by limitation basis, with specific fact findings for each *contested* limitation and satisfactory explanations for such findings.") (emphasis added). Arguments not timely presented in the principal brief on appeal are waived absent a showing of good cause. *See* 37 C.F.R. § 41.37(c)(1)(vii).

As Mann has not disputed any of the factual findings of the Examiner regarding the references, the dispositive consideration in this appeal is the proper construction of the claims.

Claim 1 is drawn to a process "comprising the steps" recited in the remainder of the claim. The transitional phrase 'comprising" is "open" language, meaning that the claim is open to additional steps and materials not recited in the claim. *In re Baxter*, 656 F.2d 679, 686 (CCPA 1981) ("the term 'comprises' permits the inclusion of other steps, elements, or materials" not recited in the claim.) In particular, Mann's claims are open to steps in which a voltage is applied. It is hornbook patent law that limitations are not to be read from the specification into the claims. *McCarty v. Lehigh Valley R. Co.*, 160 U.S. 110, 116 (1895) ("if we once begin to include elements not mentioned in the claim, in order to limit such claim . . . , we should never know where to stop.")

We conclude that Mann has failed to demonstrate reversible error in the Examiner's rejection for anticipation, and we therefore AFFIRM that rejection. As no separate argument has been presented against the rejection for obviousness, the rejection for obviousness is also AFFIRMED.

D. Summary

In view of the record and the foregoing considerations, it is:

ORDERED that the rejection of claims 1 and 4 under 35 U.S.C. § 102(b) in view of Momoda is AFFIRMED;

FURTHER ORDERED that the rejection of claims 3, 8, 21, 23, 25, 27, 29, 30, and 32-37 under 35 U.S.C. § 103(a) in view of Momoda is AFFIRMED;

FURTHER ORDERED that 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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