

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALLAN P. THOMPSON
and JOHN K. SHIGLEY

Appeal No. 2002-0038
Application No. 09/090,256

ON BRIEF

Before KRATZ, TIMM and DELMENDO, Administrative Patent Judges.
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 6-11, 14-22, 24-27, 29, 31 and 33-36. Claims 12, 23, 28, 30, 37 and 38, which are all of the other claims that remain pending in this application, have been indicated as containing allowable subject matter by the examiner but have been objected to as depending from a rejected base claim. See page 2 of the answer.

BACKGROUND

Appellants' invention relates to a process for producing a composite article, such as a rocket nozzle component. An understanding of the invention can be derived from a reading of exemplary claim 6, which is reproduced below.

6. A process for producing a composite article having a selected configuration, said process comprising:

(a) arranging a curable pre-preg into the selected configuration at a level of compaction sufficiently low to permit voids to be generated therein during subsequent curing of the pre-preg; and

(b) conducting said subsequent curing of the pre-preg at a pressure sufficiently low to permit evolving gases to form voids in the pre-preg as the pre-preg cures into the composite articles,

wherein the pressure at which the pre-preg is cured in (b) is maintained at not more than 50 psig.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Long et al. (Long)	3,634,130	Jan. 11, 1972
Borgmeier et al. (Borgmeier)	4,182,495	Jan. 08, 1980
Blevins et al. (Blevins)	4,327,885	May 04, 1982
Shaw et al. (Shaw)	4,643,940	Feb. 17, 1987
Hartman	4,842,923	Jun. 27, 1989
Boinot et al. (Boinot)	5,082,918	Jan. 21, 1992
Honka	5,106,568	Apr. 21, 1992
Weitsman et al. (Weitsman)	5,340,625	Aug. 23, 1994

Shigekasu Higuchi (Moichi)¹ 62-028230 Jun. 02, 1987
(published Japanese Patent Application)

Claims 6, 7, 14, 16-18, 24 and 26 stand rejected under 35 U.S.C. § 102 as anticipated by Honka. Claims 6, 7, 14, 16-18, 24 and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Honka in view of Weitsman. Claims 8 and 19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Honka in view of Weitsman and Boinot. Claims 9 and 20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Honka in view of Boinot, with or without Weitsman, and Hartman. Claims 10 and 21 stand rejected under 35 U.S.C. § 103 as being unpatentable over Honka or over Honka in view of Weitsman, each further in view of Long or Blevins. Claims 11 and 22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Honka in view of Long or Blevins, each with or without Weitsman, and Hartman and Shaw. Claims 15 and 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Honka in view of Moichi, with or without Weitsman. Claims 27, 29, 31 and 33-36

¹ All references to Moichi in this decision are to the English language translation of the published Japanese application of Higuchi by FLS, Inc., of record. In the answer, the examiner refers to this reference as Moichi. In the briefs, appellants refer to this reference as Moichi and JP '230. For consistency, we shall also use the appellation "Moichi."

stand rejected under 35 U.S.C. § 103 as being unpatentable over Honka in view of Weitsman and Borgmeier.

We refer to appellants' briefs and to the examiner's answer for an exposition of the respective viewpoints expressed by appellants and the examiner concerning the rejections.

OPINION

Upon careful review of the entire record including the respective positions advanced by appellants and the examiner with respect to the rejections that remain before us for review, we find ourselves in agreement with appellants since the examiner has failed to carry the burden of establishing a prima facie case of anticipation or obviousness. Accordingly, we will not sustain the examiner's stated rejections on this record.

Regarding the examiner's § 102 rejection, the method claims so rejected require that the pressure at which a pre-preg² is cured while forming a composite article is maintained at no more than about 50 psig (independent claim 6) or no more than atmospheric pressure (independent claim 17). Appellants have

² As set forth at page 1 of appellants' specification, composite starting materials for rocket motor nozzle components are referred to as pre-pregs. The "[p]re-preg materials generally include fabric and/or fiber that has/have been pre-impregnated with resin, typically a phenolic resin" (specification, page 1, lines 18-20).

argued that Honka does not disclose maintaining the pressure below either of such claimed pressure limits during the curing of a pre-preg to form a composite article. On the other hand, the examiner makes reference to a vacuum bag that is used in the molding method of Honka and the example at columns 3 and 4 of the reference. Based on that disclosure and the examiner's determination that the teachings in Honka are not limited to using an autoclave at 200 psig pressure for curing, as in the Example, the examiner asserts that Honka represents an anticipatory disclosure of the subject matter called for in the claims rejected under 35 U.S.C. § 102. In so doing, the examiner refers to column 1,, lines 57-68; column 2, lines 29-68 and column 3, lines 1-14 of Honka. See pages 4, 5 and 9 of the answer.

However, the examiner has not pointed out, nor can we find, where a disclosure of an uppermost curing pressure that meets appellants' claimed limitations is located in Honka. In this regard, while we agree with the examiner that Honka does not limit the disclosed method to using an autoclave for curing at a 200 psig pressure, it is the examiner's burden to establish that Honka necessarily describes a method that appellants' rejected claims would read on. This, the examiner has not done. As

developed in appellants' briefs, the mere mention of use of a vacuum bag does not equate with a teaching of an upper limit for the curing pressure. Indeed, Honka employed a vacuum bag and vacuum pressure in the Example described at columns 3 and 4 but also increased the pressure to 200 psig for curing in that example. Accordingly, we will not sustain the examiner's § 102 rejection on this record.

Moreover, the examiner has not fairly explained how any of the other applied references³ together with Honka would have led one of ordinary skill in the art to restrict the curing pressure in forming the composite to a value within that called for in the appealed claims with a reasonable expectation of success in so doing as argued by appellants in the briefs. Consequently, we will not sustain any of the examiner's § 103 rejections on this record.

³ We are mindful that the examiner and appellants have noted that Borgmeier discloses a cure pressure of 100 psi. See page 8 of the answer and pages 17 and 18 of the brief with respect to the application of that reference to claims 27, 29, 31 and 33-36. However, the examiner has not advanced any persuasive reasoning explaining how the combined teachings of Honka and Borgmeier with or without Weitsman would have led one of ordinary skill in the art to appellants' curing pressure limits, as specified in the so rejected claims.

CONCLUSION

The decision of the examiner to reject the appealed claims as set forth in the answer is reversed.

REVERSED

PETER F. KRATZ)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CATHERINE TIMM)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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ROMULO H. DELMENDO)	
Administrative Patent Judge)	

PFK/sld

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