

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. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MIKIHIRO IKAWA

Appeal No. 2004-1099
Application No. 09/868,911

ON BRIEF

Before OWENS, WALTZ, and PAWLIKOWSKI, Administrative Patent Judges.
WALTZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the primary examiner's final rejection of claims 15 through 26, which are the only claims pending in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellant, the invention is directed to a method and an apparatus for processing a linear groove in a resin skin (Brief, page 3). A more detailed understanding of the invention may be gleaned from representative independent claims 15 (method) and 18 (apparatus) as found in the Appendix to appellants' Brief.

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The examiner has relied upon the following references as evidence of obviousness:

Lenander et al. (Lenander)	5,202,065	Apr. 13, 1993
Bauer	5,744,776	Apr. 28, 1998
Ito (JP '971) (published Japanese <i>Kokai</i> Patent Application)	S52-971	Jan. 06, 1977
Otani (JP '118) (published Japanese <i>Kokai</i> Patent Application)	H4-355118	Dec. 09, 1992
Ono (JP '811) (published Japanese <i>Kokai</i> Patent Application) ¹	H6-218811	Aug. 09, 1994

Anonymous, Derwent Abstract of RD 422045A (Derwent '045A), "Method to create hidden tear seams in hidden airbag deployment doors - using ultrasonic activation of knife to cause localised heating and melting of cover material as it is being cut by blade," two pages, published June 10, 1999.

The following rejections are before us for review in this appeal, all based on 35 U.S.C. § 103(a):

(1) claims 15 and 18-20 stand rejected over JP '811 in view of Lenander and JP '118 (Answer, page 3);

(2) claims 16-17 and 21-22 stand rejected over the references applied in rejection (1) further in view of JP '971 (Answer, page 5);

¹We rely upon and cite from a full English translation of each Japanese document (JP '971, JP '118, and JP '811), previously made of record.

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(3) claims 23 and 25 stand rejected over the references applied in rejection (1) further in view of Bauer (Answer, page 6);

(4) claims 24 and 26 stand rejected over the references applied in rejection (2) further in view of Bauer (Answer, page 7);

(5) claims 15 and 18-19 stand rejected over Derwent '045A in view of JP '118 (Answer, page 7);

(6) claims 16-17 and 21-22 stand rejected over the references applied in rejection (5) further in view of JP '971 (Answer, page 8);

(7) claims 23 and 25 stand rejected over the references applied in rejection (5) further in view of Bauer (Answer, page 9);
and

(8) claims 24 and 26 stand rejected over the references applied in rejection (5) further in view of JP '971 and Bauer (Answer, page 10).

We reverse all of the rejections on appeal essentially for the reasons stated in the Brief and those reasons set forth below.

OPINION

With respect to rejection (1) which includes independent claims 15 and 18, the examiner finds that JP '811 teaches the basic claimed apparatus and process for forming a linear groove in an air

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bag portion of a resin skin (Answer, pages 3-4). The examiner finds that JP '811 does not teach an adjusting mechanism for a step of adjusting the ultrasonic tool, and therefore applies Lenander for the teaching of using an adjustment device to position the ultrasonic tool to improve thickness control of the score line (Answer, page 4). From these findings, the examiner concludes that it would have been obvious to one of ordinary skill in this art to have provided an adjustment device to position the ultrasonic tool in the process and apparatus of JP '811, since Lenander teaches that adjusting the ultrasonic tool provides for improved thickness control of the score line (*id.*). The examiner further finds that JP '811 and Lenander do not teach a device for blowing cool air after processing the linear groove, and therefore applies JP '118 for the teaching of an ultrasonic process where a compressor and a pipe are provided for blowing cool air onto the processed area (*id.*). From these findings, the examiner concludes that it would have been obvious to one of ordinary skill in this art to have provided a cooling device to blow cooling air in the process and apparatus of JP '811 and Lenander to reduce processing time, hence increasing productivity and reducing production costs, as taught by JP '118 (Answer, paragraph bridging pages 4-5). The examiner also states that a reason for the combination of references with JP

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'811, with regard to both Lenander and JP '118, is that all of the references teach ultrasonic processing of polymeric materials. We disagree for the following reasons.

JP '118 is directed to the ultrasonic sealing of two superposed polymeric films (¶ [0010] and [0011]; see also Figure 1). This reference teaches that the connection part of the sealed film is rapidly cooled by blowing compressed air either simultaneously with or immediately after the connection of the film by the ultrasonic waves (page 1, claims 1 and 2). JP '118 teaches that the natural cooling and solidification of the connection part causes the connection part to become fragile and easily ruptured (¶ [0002] and [0003]). The inventor of JP '118 has found that if the film part which is melted by ultrasonic energy is rapidly cooled, it becomes amorphous and there is no deterioration of mechanical strength (¶ [0006]). Because the ultrasonic welding part of the film is rapidly cooled, "fragility is not generated, and remarkably good welding strength can be obtained."

¶ [0016][sic]. The result of the teaching of JP '118 is that "where repeated bending stress is present, the connection part does not rupture." *Id.*

Therefore we determine that the teachings of JP '118 are directly contrary to the expressed desires of JP '881 and Lenander,

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both of which are directed to creating score lines which are meant to *weaken* the resin skin or thermoplastic film, not strengthen it so that it does *not* rupture. Accordingly, we determine that the examiner has not established any convincing motivation, suggestion or incentive for combining the references as proposed. See *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Although the examiner is correct that the suggestion or motivation to combine the references does not have to be the same as appellant's motivation to establish obviousness (Answer, pages 16-17),² the examiner must establish some convincing motivation or suggestion for combining the references as proposed. The general statement that "all references teach ultrasonic processing of polymeric materials" (e.g., Answer, page 13) is not sufficient (see the Brief, page 6; *In re Dembiczak*, *supra*). As correctly argued by appellants (Brief, pages 6-7), JP '118 is concerned with preventing the welded portions of superposed resin films from becoming fragile while the claimed invention (and JP '811) is directed to the removal of resin material that is fused by ultrasonic vibration to the sides of a groove, with appellant further teaching that this removed material is hardened by blown cooling air. The examiner

²See *In re Kemps*, 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1311 (Fed. Cir. 1996).

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has not presented a convincing reason for the combination of the different methods of JP '118 and JP '811.

The examiner has applied JP '118 as the sole reference for the teaching of providing a cooling apparatus or cooling step in every rejection on appeal (see the Answer in its entirety). The remaining secondary references (JP '971 and Bauer) and primary reference (Derwent '045A) do not remedy the deficiencies in JP '118 discussed above. For the foregoing reasons and those stated in the Brief, we determine that the examiner has not established a *prima facie* case of obviousness in view of the reference evidence of record. Therefore we cannot sustain any rejection on appeal.

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The decision of the examiner is reversed.

REVERSED

TERRY J. OWENS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
THOMAS A. WALTZ)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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BEVERLY A. PAWLIKOWSKI)	
Administrative Patent Judge)	

TAW/jrg

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Felix J. D'Ambrosio
Jones Tullar & Cooper
PO Box 2266 Eads Station
Arlington, VA 22202