

The opinion in support of the decision being entered today
is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte TETSURO TSUKADA and TOMOMI TAKAHASHI

Appeal 2007-1485¹
Application 10/943,944
Technology Center 1700

Decided: June 27, 2007

Before PETER F. KRATZ, JEFFREY T. SMITH, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the Primary Examiner's final rejection of claims 13, 14, and 19-26. Claims 1-12 and 15-18 have been withdrawn from consideration. We have jurisdiction pursuant to 35 U.S.C. § 6.

¹ An oral hearing was held on June 6, 2007.

According to Appellants, the invention is directed to a wide fluoro-resin film having a width of from 1 to 150 m having at least two sheets of film made from a fluoro-resin. The fluoro-resin film has utility as a covering material for agricultural uses (Specification 5-9).² Claim 13 is representative of the invention and is reproduced below:

13. A wide fluoro-resin film having a width of from 1 to 150 m, having at least two sheets of films made from a fluoro-resin, bonded by repeating a bonding method at least once, wherein the bonding method comprises disposing said at least two sheets of films so that their edges overlap each other, thereby forming an overlapping portion, wherein said overlapping portion includes and is wider than a central part thereof, press-bonding said central part of said overlapping portion under heating at a temperature within a range of from lower by 5°C to higher by 20°C than the melting point of the fluoro-resin, and then press-bonding the entire area of said overlapping portion at a temperature within a range of from lower by 30°C to lower by more than 5°C, than the melting point, to weld the two sheets of films.

The Examiner has relied on the following prior art references as evidence of unpatentability:

Jarvis	US 2002/0172792	Nov. 21, 2002
Higuchi	US 6,512,064 B2	Jan. 28, 2003
Lankhof	US 6,706,946 B1	Mar. 16, 2004
Yamanaka ³	US 6,878,400 B1	Apr. 12, 2005
Inaba ⁴	US 6,893,729 B2	May 17, 2005

The Examiner entered the following grounds of rejection:

² We refer to and cite from Appellants' Appeal Brief dated July 24, 2006 and the Reply Brief dated October 19, 2006.

³ The application for this patent was filed on November 13, 2001.

⁴ The application for this patent was filed on November 1, 2002.

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Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Higuchi (Answer 4).

Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Yamanaka (Answer 4-5).

Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jarvis in combination with Inaba (Answer 5-6).

Claims 13-14 and 19-26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jarvis in combination with Inaba and Lankof (Answer 6-8).

Principles of Law

Under 35 U.S.C. § 103, the factual inquiry into obviousness requires a determination of: (1) the scope and content of the prior art; (2) the differences between the claimed subject matter and the prior art; (3) the level of ordinary skill in the art; and (4) secondary considerations. *See Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966). “[A]nalysis [of whether the subject matter of a claim is obvious] need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR Int’l Co. v. Teleflex, Inc.*, 127 S. Ct. 1727, 1740-41, 82 USPQ2d 1385, 1396 (2007), *quoting In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336-37 (Fed. Cir. 2006). The analysis supporting obviousness, however, should be made explicit and should “identify a reason that would have prompted a person of ordinary skill in the art to combine the elements” in the manner claimed. *KSR*, 127 S.Ct. at 1731, 82 USPQ2d at 1389.

It has long been held that “[i]f the product in a product- by- process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.” *SmithKline Beecham Corp. v. Apotex Corp.*, 439 F.3d 1312, 1317, 78 USPQ2d 1097, 1101 (Fed. Cir. 2006)(quoting *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985)).

OPINION

(A) The rejections over Higuchi and Yamanaka.

Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Higuchi and Yamanaka individually.⁵

The Examiner contends that both Higuchi and Yamanaka teach a wide fluoro-resin film useful as an agricultural covering having at least two fluoro-resin film sheets bonded to one another. The Examiner recognized that neither Higuchi nor Yamanaka disclosed the described fluoro-resin film had a width of from 1-150 m as required by the claimed invention. The Examiner concluded that forming a fluoro-resin film with a width of from 1-150 m would have been obvious to a person of ordinary skill in the art (Answer 4-5).

Appellants contend that the fluoro-resin film structure of Higuchi and Yamanaka is not substantially similar to the present invention because the described layers are coextensive with each other rather than overlapping at the edges (Br. 6-7).

⁵ Appellants have not presented separate arguments for claim 14 (See Brief 6-7). We select claim 13 as representative of the claims on appeal and will limit our discussion to claim 13.

Accordingly, the issues presented on the record for these rejections in this appeal are as follows: (1) Do Higuchi and Yamanaka each disclose, teach, or suggest a wide fluoro-resin film useful as an agricultural covering?; and (2) Has the Examiner presented an explicit reason for manufacturing a wide fluoro-resin film having a width of from 1-150 m?

We determine that the Examiner has established a prima facie case of obviousness in view of the reference evidence, which prima facie case has not been adequately rebutted by Appellants' arguments. Therefore, we AFFIRM the rejections as presented in this appeal essentially for the reasons stated in the Answer, as well as those reasons set forth below

The Examiner found that both Higuchi and Yamanaka teach a wide fluoro-resin film useful as an agricultural covering having at least two fluoro-resin film sheets bonded to one another. The Examiner recognized that neither Higuchi nor Yamanaka disclosed the described fluoro-resin film had a width of from 1-150 m as required by the claimed invention. The Examiner concluded that forming a fluoro-resin film with a width of from 1-150 m would have been obvious to a person of ordinary skill in the art (Answer 4-5).

Appellants have not contested that it would have been obvious to a person of ordinary skill in the art to form a fluoro-resin film having a width of from 1-150 m as required by the claimed invention. Rather, Appellants argue that the layers of the films of Higuchi and Yamanaka are coextensive with each other rather than overlapping at the edges.

Appellants' arguments are not persuasive because the subject matter of claim 13 does not preclude the layers from being formed coextensive with

one another. Appellants have failed to explain why the language of claim 13 should be construed so as to require the layers to have portions that are uncovered by one another. In particular, the explicit language of the claims does not appear to include this limitation and Appellants have not directed us to any language in the Specification which supports their proposed claim construction. As such, we affirm the rejection of the claims for the reasons presented by the Examiner.

Notwithstanding our above determinations, we find that the description of the prior art appearing in the present Specification discloses that it was known to persons of ordinary skill in the art to create a wide film formed from a fluoro-resin comprising overlapping portions. The Specification discloses that the wide film was known to have been used for a covering material for agricultural use (Specification 1). The Specification discloses that to create a wide film for a covering material films are bonded to one another (Specification 1). The Specification further discloses that it was known “[a]s a bonding method, it is common to employ a bonding method in which edges of two sheets of films are overlapped, and the overlapping portion is welded by press bonding under heating” (Specification 1).

(B) The rejection over Jarvis in combination with Inaba.

Claims 13-14 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jarvis in combination with Inaba .⁶

The Examiner contends that Jarvis teaches a wide film useful as an agricultural covering. The Examiner recognized that Jarvis did not disclose the film to be formed from a fluoro resin material. The Examiner contends that Inaba describes film structures comprising fluoro resin materials that have chemical resistant properties. The Examiner contends that it would have been obvious to a person of ordinary skill in the art to utilize fluoro resin materials as the wide film structure of Jarvis (Answer 5-6).

Appellants contend that the combination of Jarvis and Inaba does not disclose or suggest the presently claimed invention (Br. 8-9).

Accordingly, the issues presented on the record for this rejection are as follows: (1) does Jarvis disclose, teach, or suggest a wide film useful as an agricultural covering?; and (2) has the Examiner presented an explicit reason for manufacturing the wide film of Jarvis with fluoro resin materials?

We determine that the Examiner has established a prima facie case of obviousness in view of the reference evidence, which prima facie case has not been adequately rebutted by Appellants' arguments. Therefore, we AFFIRM the rejection as presented in this appeal essentially for the reasons stated in the Answer, as well as those reasons set forth below.

The Examiner found that Jarvis teaches a wide film useful as an agricultural covering having at least two film sheets bonded to one another. Jarvis discloses the film is useful as barrier material (Paragraph 0060). The

⁶ For this rejection, Appellants have not presented separate arguments for claim 14 (See Br. 8-9). We select claim 13 as representative of the claims on appeal and will limit our discussion to claim 13.

Examiner also recognized that Jarvis discloses the film material should have chemical resistant properties (Answer 5). The Examiner found that Inaba describes fluoro-resin film materials have chemical resistant properties. In addition to chemical resistant properties, Inaba discloses fluorine-containing ethylenic polymers have heat resistant properties, and have a low permeability against solvents and fuels (col. 1, ll. 31-34). The Examiner concluded that forming the wide film material of Jarvis utilizing a fluoro-resin material would have been obvious to a person of ordinary skill in the art (Answer 5-6).

Jarvis describes a method of joining two or more substrates with a thermoplastic tape through the use of adhesive and physical bonding with the substrates. Jarvis discloses that the formed seam has excellent tensile strength and barrier properties (Paragraph 0020). Jarvis discloses a wide variety of materials are suitable for use as the substrate and the thermoplastic tape (Paragraphs 0022-0023). Jarvis discloses that the substrates to be joined are placed in communication with the tape structure where heat and pressure are applied to seal the materials to form a seam (Paragraph 0031).

Appellants have not contested that it would have been obvious to a person of ordinary skill in the art to form a fluoro-resin film having a width of from 1-150 m as required by the claimed invention. Rather, Appellants argue that the combination of Jarvis and Inaba does not disclose or suggest the presently claimed invention because there is no thermoplastic between the respective fluoro-resin sheets and the present invention requires press bonding at the overlapping edges (Br. 8).

Appellants' arguments are not persuasive. The subject matter of claim 13 specifies that it has least two film sheets. This does not preclude the use of an additional thermoplastic sheet. Furthermore, as disclosed in the present Specification, a person of ordinary skill in the art would have recognized that fluoro-resin films are suitable for bonding under heat and pressure (Specification 1-2). Jarvis discloses that the substrates to be joined are placed in communication with the tape structure where heat and pressure are applied to seal the materials.

(C) The rejection over Jarvis in combination with Inaba and Lankof.

Claims 13-14 and 19-26 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Jarvis in combination with Inaba and Lankof.⁷

Regarding claims 19 and 20, Appellants argue that none of the applied prior art discloses or suggests the claimed subject matter (Br. 10).

Appellants' argument is not persuasive because it does not address the Examiner's basis of rejecting the claims. Specifically, Appellants have not addressed why the Lankof reference would not have suggested to a person of ordinary skill in the art the suitability of using a hydrophilic layer on a fluoro-resin film as proposed by the Examiner.

Regarding claims 23-26, Appellants' arguments are not persuasive. The present record establishes that a person of ordinary skill in the art recognizes that film sheets can be bound together to form a wide sheet (*See*

⁷ We have already addressed the limitations of claims 13 and 14 in our discussion of the previous rejection.

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Specification 1). Appellants' arguments have not addressed why the width of the overlapping portion specified in the claims are separately patentable and would not have been obvious to a person of ordinary skill in the art.

For the foregoing reasons and those stated in the Answer, we affirm all grounds of rejection presented in this appeal.

ORDER

The Examiner's rejections of claims 13-14 and 19-26 under 35 U.S.C. § 103(a) are 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)(1)(iv)(2006).

AFFIRMED

sld/ls

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