

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte CURTIS P. SMITH,  
JOHN W. REISCH  
and RICHARD J. FEEGEL

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Appeal No. 1997-2384  
Application No. 08/430,083

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ON BRIEF

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Before WARREN, OWENS, and KRATZ, Administrative Patent Judges.  
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 15 through 20, which are all of the claims pending in this application<sup>1</sup>.

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<sup>1</sup> A preliminary amendment canceling claims 1-14 was presented at numbered item 5 of the transmittal letter that accompanied the filing of this application on April 27, 1995. This amendment has not been clerically entered.

BACKGROUND

At the outset, we note that the present application was filed as a divisional of U.S. application No. 08/265,369, which parent application was filed on June 24, 1994. Also, copending and related application No. 08/376,270 was filed on January 23, 1995 as a continuation-in-part of the above-noted parent application. Both of the above-noted related and copending applications are also before us on appeal (Appeals No. 1997-1907 and 1997-1991, respectively)<sup>2</sup>.

Appellants' invention relates to a method of coating a substrate using a composition comprising a dispersion of polyurethane in water. An understanding of the invention can be derived from a reading of exemplary claim 15, which is reproduced below.

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<sup>2</sup> We observe that appellants refer to parent application No. 08/265,369 at page 2 of the brief submitted on October 21, 1996 without acknowledging the existence of the other related copending application No. 08/376,270 and without setting forth the appealed status of all of the above-noted applications. See 37 C.F.R. § 1.192(c)(2) (1995).

15. A method for coating a substrate which comprises contacting the substrate with a coating composition comprising a dispersion in water of the reaction product of:

(a) a water-dispersible isocyanate-terminated polyurethane prepolymer having an NCO content of between about 1.5 and 10% by weight, said prepolymer having incorporated therein uretdione moieties and isocyanurate moieties, and

(b) an active hydrogen-containing chain extender.

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

Mosbach et al. (Mosbach) 24, 1992	5,098,983	Mar.
Coogan et al. (Coogan) 1992	5,169,895	Dec. 08,

Claims 15-20 stand rejected under 35 U.S.C. § 103 as being unpatentable over Coogan in view of Mosbach.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. In so doing, we find ourselves in agreement with appellants that the examiner fails to establish a *prima facie* case of obviousness<sup>3</sup> for the claimed subject matter. Accordingly, we will not sustain the examiner's rejection, as stated.

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<sup>3</sup> We note that it is the examiner who bears the initial burden of presenting a *prima facie* case of obviousness in rejecting claims under 35 U.S.C. § 103. See *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993).

Coogan discloses a composition comprising an aqueous dispersion of polyurethane that may be used as a coating material. The composition<sup>4</sup> is a product of the reaction of:

- (a) a water-dispersible isocyanate-terminated polyurethane prepolymer having an NCO content of 2.1 to 10% percent by weight,
- (b) an organic polyisocyanate having an average isocyanate functionality of 2.1 to 4.0, and
- (c) an active hydrogen-containing chain extender.

The prepolymer reactant of Coogan is disclosed as being made from an organic diisocyanate, a polyol having a specified molecular weight range and a specified compound having a hydrophillic center (column 2, lines 12-19). Coogan (column 2, lines 31-35) further teaches that mixtures of polyisocyanates may be used and a variety of modified polyisocyanates that have "... urethane, allophanate, urea, biuret, carbodimide, uretonimine or isocyanurate residues" introduced therein are useful in making the prepolymer.

The examiner takes the position that Coogan does not disclose the incorporation of uretdione moieties (dimer) in the polyurethane prepolymer used to form the composition that is employed by appellants and hence does not disclose the

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<sup>4</sup> Coogan, column 2, lines 6-11.

claimed coating process (answer, page 2). In an attempt to remedy this acknowledged deficiency, the examiner additionally relies on the teachings of Mosbach.

According to the examiner (answer, page 3),

It would have been obvious to one of ordinary skill in the art at the time the invention was made to include dimers (uretdione) in Coogan's dispersible binder composition because Mosbach shows this as a way of making films, that upon heating, further cure to yield films having higher hardness values (col. 7, line 20) because the dimers can provide additional crosslinking (col. 5, line 31).

The examiner further states (answer, page 3):

The examiner's position is that Mosbach provides motivation for modifying Coogan, and that appellants [sic] results aren't unexpected because Mosbach teaches more crosslinking, which would improve the properties.

However, on this record, we disagree with the examiner's views on this matter. At the outset, we note that "[b]efore the PTO may combine the disclosures of two or more references in order to establish *prima facie* obviousness, there must be some suggestion for doing so, found either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art." *In re Jones*, 958 F.2d 347, 350,

21 USPQ2d 1941, 1943-44 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598-99 (Fed. Cir. 1988).

Here, the examiner makes reference to Example 1 of Mosbach (answer, page 3) where Mosbach discloses the use of a mixture of a uretdione diisocyanate (dimer) and an icocyanurate polyisocyanate (trimer) as part of a polyisocyanate mixture having an NCO content of 21.6 percent which is mixed with dimethoyl propionic acid and N-methyl morpholine until the NCO content of the mixture is reduced to 15.3 percent. The mixture is subsequently cooled, a solution thereof is applied to a glass plate and then dried to form a film thereon. The examiner additionally makes reference to column 5, line 31 of Mosbach wherein a portion of a sentence of the patent describes uretdione groups or carboxl groups present in the polyisocyanates mixtures of the patent as available reactive centers in forming high molecular weight polyurethanes. The examiner also notes column 7, line 34 of Mosbach wherein a hardness value is reported for an oven dried film of a polyisocyanate mixture made from the starting components of the polyisocyanate mixture of Example 1 together

with 2,2-bis-(hydroxymethyl)-propionic acid (DMPA) and N-methyl pyrrolidone (NMP).

From our perspective, the particularly identified and isolated teachings of Mosbach, regarding the use of an isocyanate dimer in a polyisocyanate mixture that is dispersed in water and used as a coating film, and the teachings of Coogan, regarding the formation of a water dispersible polyurethane made from a water-dispersible polyurethane prepolymer, an organic polyisocyanate and a chain extender, taken together with the examiner's obviousness statements are not sufficient to establish the *prima facie* obviousness of appellants' method. This is so since the examiner has not particularly addressed how the teachings of Mosbach regarding particular polyisocyanate mixtures would have suggested a modification of the prepolymer reactant of Coogan in a manner so as to necessarily result in the herein claimed process including the formation of appellants' coating composition upon reaction. In this regard, the examiner has not adequately explained how the furnished evidence would have led one of ordinary skill in the art to modify the diisocyanate reactants of Coogan based on the teachings of Mosbach that

were selected by the examiner in a manner so as to arrive at the claimed invention herein and such that the ordinarily skilled artisan would have had a reasonable expectation of success in making this modification. See *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988); *In re Longi*, 759 F.2d 887, 892-93, 225 USPQ 645, 648 (Fed. Cir. 1985).

We note that the mere fact that the prior art may be modified to reflect features of a claimed invention does not make the modification(s) obvious. Appellants' invention cannot be used as an instruction manual or template to piece together the teachings of the prior art so that the claimed invention is rendered obvious. See *In re Fritch*, 972 F.2d 1260, 23 USPQ2d 1780 (Fed. Cir. 1992).

For the foregoing reasons, we find that the examiner has not established a *prima facie* case of obviousness. Because we reverse on this basis, we need not reach the issue of the

sufficiency of the asserted showing of unexpected results  
(brief, pages 9 and 10). *See In re Geiger*, 815 F.2d 686, 688,  
2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

CONCLUSION

The decision of the examiner is reversed.

REVERSED

CHARLES F. WARREN	)	
Administrative Patent Judge	)	
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	)	BOARD OF PATENT
TERRY J. OWENS	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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PETER F. KRATZ	)	
Administrative Patent Judge	)	

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