

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(2) is not binding precedent of the Board.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. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DAVID J. BRENNAN,
JERRY E. WHITE, and DARYL R. CALHOUN

Appeal No. 96-2827
Application 08/138,300¹

ON BRIEF

Before GARRIS, WALTZ, and LIEBERMAN, Administrative Patent
Judges.

LIEBERMAN, Administrative Patent Judge.

¹ Application for patent filed October 18, 1993.

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DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 1 and 3 through 15, which are all the claims in the application.²

THE INVENTION

Appellants' invention is directed to a thermoplastic composite containing a hydroxy-phenoxy polyether and reinforcing fibers. A further embodiment is drawn to a process of making a thermoplastic composite by applying a hydroxy-phenoxy polyether onto a surface of reinforcing fibers.

THE CLAIMS

Claims 1 and 8 are illustrative of appellants' invention and are reproduced below.

1. A thermoplastic composite comprising reinforcing fibers and a hydroxy-phenoxyether polymer matrix.

² No amendments under 37 CFR § 1.116 were filed by appellants. However, claim 15, as it appears in Appendix A, is incorrect. An amendment is required to change the dependency from "15" to "14". See Brief, page 2. There is no amendment of record.

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8. A process for making a thermoplastic composite which comprises applying a hydroxy-phenoxyether polymer onto the surface of reinforcing fibers.

THE REFERENCES OF RECORD

As evidence of obviousness, the examiner relies upon the following references of record.

Harpell et al. (Harpell)	4,501,856	Feb. 26, 1985
Wolfe et al. (Wolfe)	4,533,693	Aug. 6, 1985
Gardner et al. (Gardner)	4,608,404	Aug. 26, 1986
Brennan et al. (Brennan)	5,218,075	Jun. 8, 1993

THE REJECTIONS

Claims 1 and 3 through 15 stand rejected under 35 U.S.C. § 103 as unpatentable over Gardner in view of Harpell.

Claims 1 and 3 through 15 stand rejected under 35 U.S.C. § 103 as unpatentable over Brennan in view of Gardner and Wolfe.

OPINION

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We have carefully considered all of the arguments advanced by appellants and the examiner and agree with appellants that the aforementioned rejections are not well founded for essentially the reasons expressed by appellants in their Brief, and we add the following primarily for emphasis. Accordingly, we will not sustain the rejections.

In the first rejection, the primary reference to Gardner discloses a composition containing both thermoplastic polymer and a structural fiber. See column 2, lines 3-9. Moreover, the thermoplastic polymer is exemplified by a thermoplastic hydroxy phenoxy ether. See column 9, lines 35-67 and column 12, lines 14-22. However, the claimed subject matter requires that the composite be "thermoplastic." In contrast, we find the composite of Gardner thermosetting. Two required components of Gardner's invention are an epoxy resin and a hardener. The interaction of the epoxy resin and hardener necessarily results in a thermosetting resin matrix. See Example 14 wherein phenoxy resin is present and the composition is thermosetting. Furthermore, Examples 6-25 among others are thermosetting or cured. In this respect, we agree with appellants statement in the Brief that the,

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"addition of a thermoplastic to a thermoset epoxy system will not yield a thermoplastic matrix." See Brief, page 4.

Accordingly, although Gardner may optionally contain a thermoplastic polymer including a hydroxy-phenoxy ether and a structural fiber, as required by the claimed subject matter, the indispensable presence of the epoxy resin and hardener results in a crosslinked thermoset composite. We conclude that the examiner has not established, on this record, that the presence of the claimed components in addition to an epoxy resin and a hardener results in a thermoplastic composite. Accordingly, we reverse.

We turn next to the rejection of the claims over Brennan in view of Gardner and Wolfe. The primary reference to Brennan teaches that the claimed hydroxy-phenoxy ether polymer can be used in the form of a molded container, an impermeable film, a coating, an interlayer of a laminate or a coextruded container. See column 2, lines 13-16. However, we find no disclosure or suggestion that the hydroxy-phenoxy ether polymer of Brennan can be reinforced with fibers.

Wolfe discloses high strength fibers formed from heterocyclic nitrogen containing polymers and suggests that

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they may be added to a resinous matrix. See column 85, lines 2-3, and claims 339 and 343. However, we find no disclosure or suggestion that the fibers of Wolfe may be used with a hydroxy-phenoxy ether polymer.

The other reference to Gardner discussed supra suggests thermosetting composites prepared in the presence of an epoxy resin and a hardener. Accordingly, while the components of the claimed subject matter are each known individually or in combination with thermosetting components, on the record before us the examiner has not established any motivation or reason for combining the hydroxy-phenoxy polyether and the reinforcing fibers of the claimed subject matter or of the manner of making the thermoplastic composite as claimed.

Based upon the above analysis, we have determined that the examiner's legal conclusion of obviousness is not supported by the facts. "Where the legal conclusion [of obviousness] is not supported by facts it cannot stand." In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967).

DECISION

The rejection of claims 1 and 3 through 15 under 35 U.S.C.

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§ 103 as unpatentable over Gardner in view of Harpell is reversed.

The rejection of claims 1 and 3 through 15 under 35 U.S.C.

§ 103 as unpatentable over Brennan in view of Gardner and Wolfe is reversed.

The decision of the examiner is reversed.

REVERSED

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	Bradley R. Garris)	
	Administrative Patent Judge)	
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	Thomas A. Waltz)	BOARD OF
PATENT)	
	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
	Paul Lieberman)	
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