

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PAULS DAVIS, STEVEN D. GAGNON
and ERIC LIND

Appeal No. 95-3858
Application 07/931,628¹

ON BRIEF

Before KIMLIN, GARRIS and WALTZ, Administrative Patent Judges.
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 3-7, 9-13, 26, 28, 34 and 36. Claims 17, 18, 21, 24, 32, 38 and 39, the other claims remaining in the present application, stand withdrawn from consideration. A copy of illustrative claim 1 is appended to this decision.

¹ Application for patent filed August 18, 1992. According to appellants, this application is a continuation of Application 07/455,540, filed December 22, 1989, now abandoned.

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The examiner relies upon the following references as evidence of obviousness:

Polaski	3,894,982	July 15, 1975
Esselborn et al. (Esselborn)	4,476,252	Oct. 9, 1984

Appellants' claimed invention is directed to random copolymers of vinyl acetate and a polyalkylene oxide having an allyl glycidyl ether unit. The claimed copolymers find utility as polyols in the production of urethanes.

Appealed claims 1, 3-7, 9-13, 26, 28, 34 and 36 stand rejected under 35 U.S.C. § 112, first and second paragraphs. In addition, the appealed claims stand rejected under 35 U.S.C. § 103 as being unpatentable over Esselborn in view of Polaski.

Upon careful consideration of the opposing arguments presented on appeal, we will not sustain the examiner's rejections.

We consider first the examiner's rejection of the appealed claims under 35 U.S.C. § 112, first and second paragraphs. In essence, it is the examiner's position that the structural formula recited in claim 1 on appeal defines a block copolymer, whereas line 1 of claim 1 calls for a "random copolymer." According to the examiner, the recited structure is inconsistent with the language "random copolymer," and, therefore, the claims are indefinite since it is not clear whether a random or block

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copolymer is being claimed. However, we concur with appellants that when the claim language is read in light of the present specification, as it must be, one of ordinary skill in the art would understand that appellants are claiming a random copolymer comprising the monomeric units recited in the structural formula. Appellants' specification, at page 8, lines 4-7, expressly states "[t]he vinyl acetate monomer is randomly polymerized with the polyalkylene oxide containing allyl glycidyl ether unit to yield the polyol in the tubular reactor" (emphasis added). Since a random copolymer is understood in the art as an arrangement of monomer units in a statistically random placement along a linear chain, as opposed to a block copolymer which comprises, long, linear sequences of one monomer unit followed by long, linear sequences of another monomer unit, we are satisfied that one of ordinary skill in the art would interpret claim 1 as a copolymer comprising vinyl acetate units and the polyalkylene oxide units arranged in a statistically random linear configuration. We remind the examiner that simply because claim language can be literally interpreted to embrace non-enabled embodiments, such as, here, a block copolymer, this does not render the claim susceptible to a rejection under § 112, first paragraph. See In re Kamal, 398 F.2d 867, 872, 158 USPQ 320, 324 (CCPA 1968); In re Sarett, 327 F.2d 1005, 1019, 140 USPQ 474, 486 (CCPA 1964).

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The examiner also explains that it is not clear from claim 10 "whether the two moieties specified are all the moieties that may form part of the copolymer produced" (page 3 of Answer). However, the examiner has not established that even assuming, arguendo, that claim 10 is sufficiently broad to encompass monomer units other than those specified, why the claim would be indefinite or non-enabled to one of ordinary skill in the art. Also, although the examiner states that claim 10 "is inaccurate as it does not specify where the attachment of the polyalkylene oxide is to the glycidyl moiety" (pages 3 and 4 of Answer), since the examiner acknowledges that "[i]t is apparent that the reaction site will be the epoxy part of the glycidyl" (page 4 of Answer), and appellants agree with the examiner's assessment, manifestly, the examiner has not satisfied the burden of setting forth a convincing line of reasoning why one of ordinary skill in the art would not understand where the attachment of the polyalkylene oxide is to the glycidyl moiety.

We will also not sustain the examiner's rejection of the appealed claims under 35 U.S.C. § 103 over Esselborn in view of Polaski. The examiner recognizes that although Esselborn discloses a copolymer of vinyl acetate and polyoxyalkylene ethers of allyl and/or methallyl alcohol, the reference does not teach or suggest the claimed copolymer of vinyl acetate and a

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polyalkylene oxide having an allyl glycidyl ether unit. Polaski, the secondary reference, merely evidences the existence of a polyalkylene oxide having an allyl glycidyl ether unit, but the allyl glycidyl ether-polyalkylene oxide copolymer elastomers of Polaski react with sulfur across the allylic bond to vulcanize the elastomer. There is no teaching or suggestion in Polaski of copolymerizing the allyl glycidyl ether-polyalkylene oxide copolymer elastomers with vinyl acetate, as required by the appealed claims. Since neither of the applied references, either alone or in combination, suggests the claimed copolymers, we are constrained to reverse the examiner's rejection.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is reversed.

REVERSED

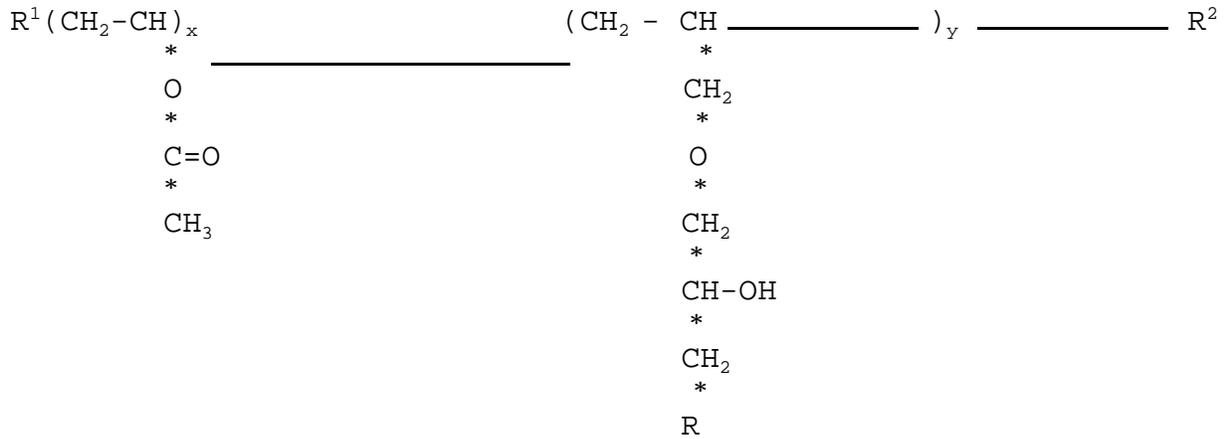
EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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BRADLEY R. GARRIS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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APPENDIX

1. A random copolymer having the general formula:



wherein R is a polyalkylene oxide,
 R¹ and R² are end groups, and
 x is equal to or greater than y, and wherein the random
 copolymer has a number average molecular weight ranging from
 about 500 to about 5000.