

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(2) is not binding precedent of the Board.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

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RONALD L. AMEY

Appeal No. 1996-4115
Application 08/183,273¹

ON BRIEF

Before KIMLIN, JOHN D. SMITH, and LIEBERMAN, Administrative
Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the
examiner's refusal to allow claim 5 which is the sole claim in

¹ Application for patent filed January 19, 1994.
According to appellant, this application is a division of
Application No. 07/868,321, filed April 14, 1992.

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the application.

THE INVENTION

The invention is directed to a process for lowering the amount of epichlorohydrin and related hydrolysis compounds in an aqueous solution of a polyamide-epichlorohydrin resin. The process comprises contacting the aqueous resin solution with an adsorbent selected from the group consisting of ion exchange resins, non-ionic polymeric resins, synthetic carbon containing adsorbents, activated carbon, zeolites, silica, clays and alumina.

THE CLAIM

Claims 5 is illustrative of appellant's invention and is reproduced below.

5. A process for lowering the amount of epichlorohydrin and related hydrolysis compounds that are contained in an aqueous solution of polyamide-epichlorohydrin resin, which comprises adsorbing epichlorohydrin and related hydrolysis compounds contained in an aqueous solution of polyamide-epichlorohydrin resin by contacting the aqueous solution with an adsorbent selected from the group consisting of ion exchange resins, non-ionic polymeric resins, synthetic carbonaceous adsorbents, activated carbon, zeolites, silica, clays, and alumina.

THE REFERENCES OF RECORD

As evidence of obviousness, the examiner relies upon the

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following references:

Daniel et al. (Daniel)	2,601,597	Jun. 24, 1952
Baggett	3,655,506	Apr. 11, 1972
Chamberlin	3,804,789	Apr. 16, 1974
Devore et al. (Devore)	5,189,142	Feb. 23, 1993

THE REJECTION

Claim 5 stands rejected under 35 U.S.C. § 103 as being unpatentable over the admitted state of the prior art and Daniel, Chamberlin, Baggett, and Devore.

OPINION

We have carefully considered all of the arguments advanced by appellant and the examiner and agree with appellant that the aforementioned rejections are not well founded. Accordingly, we will not sustain the rejections.

"[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a prima facie case of unpatentability." See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). The

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examiner relies upon a combination of the admitted state of the prior art and four references to reject the claimed subject matter. The basic premise of the rejection is whereas appellant has admitted that both the resin and the adsorbents are old, and the prior art of record discloses that it is conventional practice to remove excess epichlorohydrin from a polyamide-epichlorohydrin copolymer, it would have been obvious to the person having ordinary skill in the art to utilize a known adsorbent for the removal of epichlorohydrin and related hydrolysis compounds. We disagree.

The four references of record are each concerned with the removal of excess epichlorohydrin from a polyamide-epichlorohydrin resin. The references to Daniel, Chamberlin and Baggett each remove excess epichlorohydrin by vacuum distillation. See Daniel, column 6, lines 71-75, Baggett, column 2, line 60 through column 3, line 3, and Chamberlin, column 2, lines 15-18. Chamberlin additionally discloses that solvent extraction may be used for the removal of impurities. See column 2, lines 67-68. However, none of Daniel, Chamberlin or Baggett discloses or suggests that other methods for the removal of epichlorohydrin are desirable.

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Devore recognizes that polyamide-epichlorohydrin resins emit harmful chlorinated compounds into the water system of pulp and paper mills. See column 1, lines 41-44. However, we find that Devore solves the problem by using an epichlorohydrin/amine equivalent of about 0.6 to about 0.8, i.e., a deficiency of epichlorohydrin. Hence the reaction continues until all the epichlorohydrin has reacted. See column 2, lines 60-64 and column 4, lines 50-57. Accordingly, Devore recognizes that excess epichlorohydrin is undesirable, but suggests its removal by decreasing the ratio of mole equivalents present.

In viewing the teachings of the references as a whole, we conclude that the examiner has not explained why it would have been obvious to one of ordinary skill in the art to have removed epichlorohydrin from a polyamide-epichlorohydrin resin, when no such suggestion is found in the prior art.

The examiner must show reasons that the skilled artisan confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. We determine that there is no reason,

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suggestion, or motivation to combine the references in the manner proposed by the examiner. Accordingly, the examiner has not established a prima facie case of obviousness. See In re Rouffet, 149 F.3d 1350, 1357-1358, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998).

DECISION

The rejection of claim 5 under 35 U.S.C. § 103 as being unpatentable over the admitted state of the prior art and Daniel, Chamberlin, Baggett, and Devore is reversed.

The decision of the examiner is reversed.

REVERSED

Edward C. Kimlin)
Administrative Patent Judge)
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John D. Smith) BOARD OF
PATENT Administrative Patent Judge) APPEALS AND
) INTERFERENCES

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Paul Lieberman
Administrative Patent Judge

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