

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 20

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RICHARD L. BRANDON

Appeal No.95-1250
Application 07/901,722¹

ON BRIEF

Before KIMLIN, WEIFFENBACH and WARREN, *Administrative Patent Judges*.

WEIFFENBACH, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-3 and 17-24. In an amendment under 37 CFR § 1.116 filed December 17, 1993 (Paper No. 9), applicant canceled claims 17, 18, 22 and 23. In the Answer, for the first time the examiner states that claim 24, added by an amendment filed August 24, 1993 (Paper No. 7) and rejected over prior

¹ Application for patent filed June 22, 1992.

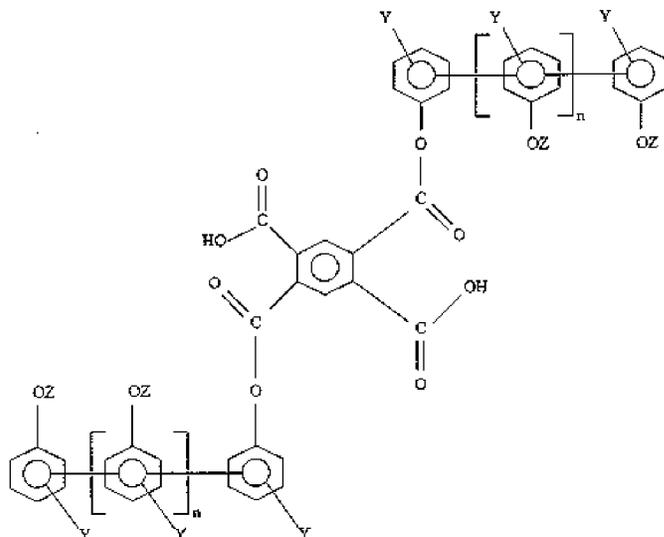
art of record in the final rejection dated September 14, 1993 (Paper No. 8, p. 6), “is drawn to a non-elected invention that is a combination of the sub-combination polymer composition that was elected by original presentation for prosecution on the merits ...” (Answer, p. 1). According to the examiner, he “regrets this oversight and notes that this claim has not been argued separately from the composition claimed by Appellant at any point throughout prosecution or in the brief for appeal” (Answer, p. 1). Regrets or not, the examiner’s restriction was improper at the time it was made in the prosecution. Under the second sentence of 37 CFR § 1.142(a), a restriction must be made before final action.² For judicial economy, we will not consider claim 24 as having been withdrawn from consideration. For the foregoing reasons, we will consider this appeal as from the final rejection of claims 1-3, 19-21 and 24, the only claims remaining in the application.

The Claimed Subject Matter

The claims on appeal are directed to a phenolic resin developer. Claim 1 is illustrative of the claimed subject matter:

1. A phenolic developer resin having free carboxyl groups represented by the formula:

² The second sentence of 37 CFR § 1.142(a) states: “If the distinctness and independence of the inventions be clear, such requirement will be made before any action on the merits; however, it may be made at any time before final action in the case at the discretion of the examiner” (emphasis ours).



where n is 0 to 100, the phenolic units of the resin being directly bonded to one another through positions ortho or para to the OZ group; Z is selected from the group consisting of H and an ester linkage with a pyromellitic dianhydride moiety; and Y is present at a position meta or para to the OZ group and is selected from the group consisting of a halogen atom, an aryl group, a phenylalkyl group, an alkyl group, a carboxyl group of the formula $-\text{COOR}$ where R is H, an alkyl group or a phenylalkyl group, an alkoxy group, an aryloxy group, and an amino group of the formula $-\text{NR}_1\text{R}_2$ where R_1 and R_2 are the same or different and represent H or an alkyl group.

The Prior Art

The following prior art references are relied upon by the examiner in support of the rejections of the claims:

Hayashi et al. (Hayashi)	3,874,895	Apr. 1, 1975
Pokora et al. (Pokora)	4,647,952	Mar. 3, 1987

Nikolaev et al. (Nikolaev), "Curing a Novolak Phenolformaldehyde Resin with Pyromellitic

Dianhydride,” *Plast. Massy*, Vol. 9, pp. 66-67 (1989) (an English translation of the original article written in the Russian language).³

The Rejection

Claims 1-3, 19-21 and 24 stand rejected under 35 U.S.C. § 103 as being unpatentable over Pokora taken with Hayashi together either alone or in view of Nikolaev.⁴ According to appellant, all of the claims stand or fall together (brief, p. 4).

Opinion

We have carefully considered the respective positions advanced by appellant and the examiner. However, for the reasons set forth below, we will not sustain the examiner's rejection for obviousness under 35 U.S.C. § 103.

Under 35 U.S.C. § 103, the initial burden of establishing a *prima facie* case of obviousness rests on the examiner. *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1967); *In re Piasecki*, 745 F.2d 1468, 1471-1472, 223 USPQ 785, 787-788 (Fed. Cir. 1984). This burden is satisfied by showing that the prior art would have suggested the claimed invention to one having ordinary skill in the art. *In re Lalu*, 747 F.2d 703, 705, 223 USPQ

³ The English translation of this reference was prepared by The Ralph McElroy Translation Company.

⁴ The ground of rejection set forth in the examiner's answer is different from that set forth in the final rejection (Paper No. 8). In his final rejection, the examiner made two grounds of rejection. The first was a rejection of claims 1-3 under 35 U.S.C. § 103 as being unpatentable over Pokora in view of Hayashi and Nikolaev. The second was a rejection of claims 17-24 under 35 U.S.C. § 103 as being unpatentable over Pokora in view of Hayashi and Nikolaev.

1257, 1258 (Fed. Cir. 1984). This suggestion must be found in the prior art, not in applicant's disclosure. *In re Dow Chemical Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531 (Fed. Cir. 1988). After careful review of the prior art references cited by the examiner, none of the references are seen to suggest the developer resin as set forth in the claims on appeal.

The developer resin disclosed by appellant is the reaction product of the phenolic resin taught by Pokora with pyromellitic dianhydride (1,2,4,5-benzene tetracarboxylic dianhydride). While appellant acknowledges that phenol-formaldehyde condensates are widely used color developers, appellant, like Pokora, points out that “[b]ecause such resins are prepared from formaldehyde, there is a concern that they may be unsafe from both the standpoint of their manufacture and their use in recording materials.” Pokora developed a formaldehyde free phenolic resin color developer. According to appellant, the invention claimed herein is an improvement over Pokora’s resin.

The developer resin set forth in the claims on appeal requires an anhydride moiety comprising at least four carboxyl groups. Hayashi teaches preparing a color developer which comprises an acidic phenolic polymer and an organic carboxylic acid. The phenolic polymers contemplated by Hayashi are phenolaldehyde polymers and phenol-acetylene polymers (col. 4, lines 6-19), neither of which are within the scope of the claimed phenol polymers set forth in Pokora. The organic acids contemplated by Hayashi contain up to three carboxyl groups (col. 3, lines 12-43). Hayashi does not teach or suggest using anhydrides, let alone acids having at least four carboxyl

groups. The examiner has based his conclusion of obviousness on what he considers the apparent similar reaction conditions disclosed by Hayashi and conditions set forth in appellant's single example. We do not find this analysis as being a basis for supporting obviousness. The examiner's analysis does not explain how one skilled in the art would be led to the improved developer compound as claimed herein in the absence of any suggestion or teaching in Hayashi of using an organic acid having at least four carboxyl groups and reacting the organic acid with a formaldehyde free phenol as disclosed by Pokora. For these reasons, we find that the examiner has not made out a prima facie case of obviousness for the rejection of claims 1-3, 19-21 and 24 over Pokora in view of Hayashi.

As for the rejection of the claims over Pokora in view of Hayashi and Nikolaev, this rejection too must fall. Nikolaev does not make up for the deficiencies of Hayashi. Although Nikolaev teaches reacting a novolak phenolformaldehyde with pyromellitic dianhydride, the reference teaches away from the claimed invention. Appellant's basic phenol is a formaldehyde free phenol while Nikolaev is limited solely to curing phenolformaldehyde resins. Moreover, there is no suggestion in the reference that the phenolic resin cured with pyromellitic dianhydride would be useful as a developer. The examiner has not provided any analysis of the prior art as to how one skilled in the art would have been led from the combined teachings of Pokora, Hayashi and Nikolaev to the claimed phenol resin developer as set forth in the claims on appeal. We conclude that the only suggestion to combine a pyromellitic anhydride with Pokora's phenolic resin came from appellant's disclosure, and not from the teachings of the prior art. Accordingly, the rejection of claims 1-3, 19-21 and 24 over Pokora in view of Hayashi and Nikolaev is reversed.

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For the foregoing reasons, we conclude that the examiner has not made out a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). Accordingly, the examiner's rejection of claims 1-3,19-21 and 24 under 35 U.S.C. § 103 is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CAMERON WEIFFENBACH)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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CHARLES F. WARREN)	
Administrative Patent Judge)	

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