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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

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Ex parte HANS-JOSEF BUYSCH, NORBERT SCHON
and GUNTHER JEROMIN

_____

Appeal No. 1996-2340
Application 08/108,854

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ON BRIEF

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Before WILLIAM F. SMITH, GRON and ELLIS, ***Administrative Patent Judges***.

ELLIS, ***Administrative Patent Judge***.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1 through 32, all the claims in the application.

As a preliminary matter we note the appellants' statement on p. 3 of the Brief that the claims do not stand or fall together. 37 CFR § 1.192(c)(7). According to the appellants, claims 23 through 32 (hereinafter, Group II) contain limitations which render

them patentably distinct from claims 1 through 22 (hereinafter, Group I). Accordingly, for purposes of this appeal, we will consider the issues as they apply to claims 1 and 23, which are representative of each of the claim groupings. Claims 1 and 23 read as follows:

1. A process for the production of aryl carbonates comprising reacting an aromatic monohydroxy compound with at least one member selected from the group consisting of phosgene and chlorocarbonic acid ester of an aromatic monohydroxy compound, at a temperature of 50 to 350EC in the presence of active carbon as catalyst.

23. A process for the production of aryl carbonates comprising reacting an aromatic monohydroxy compound with at least one member selected from the group consisting of phosgene and chlorocarbonic acid ester of an aromatic monohydroxy compound at, a temperature of 50 to 350EC, in the presence of suspended active carbon catalyst, said catalyst being present in an amount of 5 to 100% relative to the weight of said monohydroxy compound.

The references relied upon by the examiner are:

Grosse et al. (Grosse)	3,864,365	Feb. 4, 1975

Fieser et al. (Fieser I), ***Reagents for Organic Synthesis***, Vol. 1, pp. 15, 40, 109, 182, 408 and 856, John Wiley & Sons, Inc., NY (1967).

Fieser et al. (Fieser II), ***Reagents for Organic Synthesis***, Vol. 3, p. 145, Wiley-Interscience, NY (1972).

Hoffmann et al. (Hoffmann) (German patent application)	2 161 254	June 20, 1973

The claims stand rejected as follows:[1]

[1] The examiner has withdrawn the final rejection under 35 U.S.C. § 112, first paragraph. Answer, p. 2.

I. Claims 1 through 32 stand rejected under 35 U.S.C. § 103 as being unpatentable over Fieser I, Fieser II, Grosse and Hoffmann.

We ***affirm*** the rejection with respect to Group I, claims 1 through 22 and ***reverse*** with respect to Group II, claims 23 through 32.

Discussion

I.

As discussed above, the claims of Groups I and II stand or fall with representative claims 1 and 23, respectively.

With respect to Group I, the examiner has premised his conclusion of obviousness on the combined teachings of Fieser I, Fieser II, Grosse and Hoffmann. The Fieser I, Fieser II, and Grosse references disclose the production of chloroformates by reacting a primary alcohol with phosgene. To that end, the examiner points out numerous examples which demonstrate the use of aromatic, non-aromatic and quasi-aromatic alcohols with phosgene to produce a chloroformate. Answer,
pp. 3-4 and 6-7. Fieser II, in particular, discloses the production of a chloroformate (9-fluorenylmethylchloroformate) by reacting phosgene ($COCl_2$) with an aromatic alcohol (9-fluorenylmethanol) in methylene dichloride. Fieser II, p. 145.

Hoffmann discloses the preparation of chloroformates by reacting phosgene with an

aliphatic or cycloaliphatic alcohol in the presence of active carbon at a temperature range from -10EC to +60EC. Hoffmann, p. 2. Hoffmann further discloses that the presence of active carbon during the reaction results in the production of a chloroformate having a higher degree of purity. ***Id.***, pp. 4-5.

In view of the teachings of the applied prior art as to the well known use of phosgene and a primary alcohol to produce a chloroformate, the teachings of Fieser II, in particular, as to the production of a chloroformate by reacting an aromatic alcohol and phosgene, and the teachings of Hoffmann as to the production of a highly purified chloroformate when the reaction is carried out in the presence of active carbon at a temperature range of -10EC to +60EC, we agree with the examiner that it would have been obvious to one of ordinary skill in the art to produce a highly purified chloroformate by reacting an aromatic alcohol and phosgene in the presence of active carbon in the manner described in representative claim 1. Accordingly, we affirm the rejection of Group I, claims 1 through 22.

In response, the appellants acknowledge that Fieser I, Fieser II and Grosse disclose reactions which are similar to that which is described in representative claim 1, however, they argue that the references fail to teach or suggest catalysis using active carbon. Brief, p. 3. The appellants further argue that Hoffmann fails to teach the production of chloroformates using an aromatic alcohol, or the use of active carbon as a

catalyst. We find these arguments unpersuasive.

We point out that the references were relied on in combination and that the appellants cannot demonstrate non-obviousness by attacking the references individually. ***In re Betz***, 418 F.2d 942, 947, 163 USPQ 691, 695 (CCPA 1969); ***In re Young***, 403 F.2d 754, 757, 159 USPQ 725, 728 (CCPA 1968). Here, the appellants' arguments do not address the combined teachings of the references which, in our view, would have suggested the method described in representative claim 1 to those of ordinary skill in the art at the time the invention was made. ***In re Nilssen***, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988); ***In re Sernaker***, 702 F.2d 989, 995, 217 USPQ 1, 6 (Fed. Cir. 1983); ***In re Keller***, 642 F.2d 413, 425, 203 USPQ 871, 881 (CCPA 1981)(The test for obviousness is not the express suggestion of the claimed invention in the reference, but rather what the combined teachings of the references would have suggested to those of ordinary skill in the art). The only difference between the method taught by Hoffmann and the method described in representative claim 1, is that Hoffmann teaches reacting aliphatic or cycloaliphatic alcohols with phosgene, rather than an aromatic alcohol, to produce chloroformates. As to this difference, Fieser I, Fieser II and Grosse demonstrate that the production of chloroformates by reacting phosgene with a primary alcohol was well known in the art, including the reaction using an aromatic alcohol and phosgene as described by Fieser II. Thus, in our view, it would have

been obvious to one of ordinary skill in this art to perform any of the reactions described in the applied prior art in the presence of active carbon in order to obtain a more highly purified chloroformate product.

As to the appellants' argument that the prior art only recognizes the use of active carbon as a purifying agent and not as a catalyst, we point out that to establish obviousness, the examiner's reason for combining or applying references does not have to be identical to that of the appellants. ***In re Kemps***, 40 USPQ2d 1309, 1311 (Fed. Cir. 1994); ***In re Wiseman***, 596 F.2d 1098, 1022, 201 USPQ 658, 661 (CCPA 1979). Accordingly, there is no burden on the examiner to establish that active carbon acts as a catalyst in the reaction of a primary alcohol and phosgene to produce a chloroformate. The examiner need only provide a reason, based on the prior art or knowledge generally available in the art, as to why it would have been obvious to one of ordinary skill in the art to arrive at the claimed invention. ***Ashland Oil, Inc. v. Delta Resins & Refractories, Inc.***, 776 F.2d 281, 297, n24, 227 USPQ 657, 667, n24 (Fed. Cir. 1985). Here, we find that the examiner has met that burden by explaining that it would have been obvious to those of ordinary skill in the art to employ active carbon as a purifying reagent in the claimed method. Answer, p. 7.

II.

Turning to Group II, we do not find any explanation by the examiner as to why the

method described in representative claim 23 would have been obvious to one of ordinary skill in the art at the time the invention was made. Neither the rejection, nor the examiner's response to the appellants' arguments, even mention the limitations set forth in the referenced claim. Moreover, in our reading of the references, we do not find that they teach or suggest the use of active carbon in the claimed amount.[2] We remind the examiner that a conclusion of obviousness must be based on fact, and not unsupported generalities. ***In re Freed***, 425 F.2d 785, 787, 165 USPQ 570, 571 (CCPA 1970); ***In re Warner***, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), ***cert. denied***, 389 U.S. 1057 (1968). Accordingly, since we cannot find any rational basis for the examiner's conclusion that the invention described in representative claim 23 would have been obvious on one of ordinary skill in view of the applied prior art of record, we reverse the rejection of claims 23 through 32.

[2] See page 6, last full sentence of Hoffmann, the English translation of record, which reads, "Active carbon can be used as an additive, generally in a quantity of 0.05 to 3, preferably 0.2 to 2 wt.-% depending upon the initial sustance II [(the alcohol)]."

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

William F. Smith Administrative Patent Judge	)
Teddy S. Gron Administrative Patent Judge	) BOARD OF PATENT) APPEALS AND) INTERFERENCES
Joan Ellis Administrative Patent Judge	)

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