

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER STANIEK

Appeal No. 1998-2636
Application No. 08/534,961

ON BRIEF

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

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

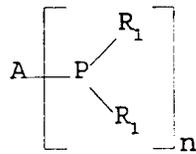
This is a decision on an appeal from the refusal of the examiner to allow claims 1, 3, 6 and 8-11 as amended subsequent to the final rejection. Claims 13 and 14 have been withdrawn from further consideration by the examiner, and claims 15-18 have been allowed. These are all of the claims remaining in the application.

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The subject matter on appeal relates to a polyolefinic composition comprising a phosphorous-containing compound of a particular formula which is disclosed as stabilizing polyolefins against degradation and a polyolefin which has been produced in the presence of a Generation II, III, IV, or V catalyst which has not been removed. This appealed subject matter is adequately illustrated by independent claim 1, the

sole
claim

which
follows



1.
composi
comprising

a) a compound of formula II

(II)

independent
on appeal,

reads as

:

A polyolefinic
tion

in which

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each R_1 independently is selected from linear or branched C_{1-30} alkyl, C_{5-12} cycloalkyl, C_{2-24} alkenyl, C_{2-18} alkoxyalkyl, C_{2-19} alkanoylmethylene, C_{7-30} alkaryl, C_{7-30} aralkyl, C_{4-24} heteroaryl (where any one of the above substituents of R_1 are unsubstituted or are substituted by 1 to 3 groups selected from C_{1-12} alkyl, $-OR_4$, $-NR_4R_5$, $-COR_4$ and $-COOR_4$); and C_{6-30} aryl, unsubstituted or substituted by 1 to 5 groups R_3 selected from C_{1-12} alkyl, C_{1-8} alkoxy, C_{5-6} cycloalkyl, phenyl or phenoxy, $-OR_4$, $-NR_4R_5$, $-COR_4$ and $-COOR_4$,

R_4 and R_5 independently are selected from hydrogen, C_{1-30} alkyl (linear or branched),

C_{5-12} cycloalkyl, C_{6-24} aryl, C_{7-30} alkaryl or C_{7-30} aralkyl;

A is a direct bond, a group $-(P-R_1)_p-$ or an n-valent aliphatic or aromatic residue, (preferably C_{1-30} alkylene (linear or branched), C_{5-12} cycloalkylene, C_{7-30} alkarylene, C_{7-30} aralkylene, C_{6-24} arylene, a N-, O-, S-, or P- containing C_{6-24} heteroarylene, C_{2-30} alkylidene or C_{2-30} alkylene interrupted by N, O or S);

n is 2 to 5; and

p is 1 to 12;

the compounds of formula II hereinafter being called component a; and

b) a polyolefin which has been produced in the presence of a Generation II, III, IV, or V catalyst which has not been removed (hereinafter called component b).

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The references relied upon by the examiner as evidence of obviousness are:

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|----------------------------|-----------|---------------|
| Mathis et al. (Mathis) | 3,637,907 | Jan. 25, 1972 |
| Kaminsky et al. (Kaminsky) | 4,542,199 | Sep. 17, 1985 |
| Turner | 4,752,597 | Jun. 21, 1988 |
| Ewen et al. (Ewen) | 4,937,299 | Jun. 26, 1990 |

The reference of record set forth below is relied upon by the appellant in support of his nonobviousness position and is discussed in the brief and in the Staniek declaration of record as well as in the answer:

Mulhaupt, "International Conference on Advances in Stabilization and Controlled Degradation of Polymers," pp. 181-196 (1990).

All of the claims are rejected under 35 U.S.C. § 103 as being unpatentable over Mathis taken with Kaminsky, Turner and Ewen.¹

We refer to the brief and reply brief and to the answer for an exposition of the opposing viewpoints expressed by the appellant and by the examiner concerning the above noted rejection.

OPINION

¹ As indicated on page 2 of the brief, the appealed claims have been grouped together. Accordingly, in resolving the issues before us on this appeal, we need focus only on independent claim 1.

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We will sustain the examiner's section 103 rejection for the reasons set forth below.

Mathis discloses a polyolefinic composition which comprises a polyolefin-stabilizing, phosphorous-containing compound of the type here defined as component a) in combination with a polyolefin albeit not the appellant's specifically claimed polyolefin defined as component b) of appealed independent claim 1. That is, the polyolefin of Mathis is not described as having been produced in the presence of a Generation II, III, IV, or V catalyst which has not been removed. However, this last mentioned type of polyolefin is disclosed by Turner who expressly teaches that the catalyst is not removed from the polymer and that antioxidants and other additives as are known in the art may be added to the polymer (e.g., see the paragraph bridging columns 7 and 8).

In light of these teachings, it would have been obvious for one with ordinary skill in the art to use the polyolefin-stabilizing compound of Mathis in combination with the catalyst-containing polyolefin of Turner particularly since the latter expressly teaches adding to this polymer antioxidants and other additives which are known in the art

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and thus which seemingly would encompass the polyolefin-stabilizing additives of Mathis. This combination would have been motivated by the desire to render Turner's polyolefins more stable via the phosphorous-containing compounds taught by Mathis to be well known for this purpose. Moreover, the above discussed teachings would have provided the artisan with a reasonable expectation that the combination in question would successfully achieve the desired stability enhancement. In re O'Farrell, 853 F.2d 894, 903-904, 7 USPQ2d 1673, 1680-81 (Fed. Cir. 1988).

In support of his nonobviousness position, the appellant refers to the Mulhaupt reference and to the 37 CFR § 1.132 declaration of record by Staniek. In essence, it is the appellant's position that no basis exists for extrapolating the polyolefin-stabilizer teachings of Mathis to polyolefins of the type here claimed which are prepared by a Generation II, III, IV, or V catalyst which has not been removed. The appellant's position is not well taken in a number of respects.

We are mindful of the appellant's point that the Mulhaupt reference teaches that there are many potential interactions between stabilizers and catalyst components of the type under

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consideration which, in the absence of catalyst deactivation or catalyst residue removal, may positively or negatively affect the results of adding a stabilizer to a polymer containing such catalyst components (e.g., see the second paragraph on page 195). Contrary to the appellant's apparent belief, however, this teaching supports a conclusion of obviousness rather than nonobviousness. This is because the aforementioned teaching suggests that potential interactions between stabilizers and catalyst components would not be a concern under conditions wherein the catalysts have been deactivated. It is here appropriate to emphasize that Turner explicitly teaches deactivating the catalyst in his polyolefin (e.g., see line 63 in column 7 through line 1 in column 8). In this regard, it is also important to emphasize that the independent claim on appeal encompasses polyolefin which contains catalyst in either an active or inactive state as evinced by lines 1-17, especially lines 12-17 on page 14 of the subject specification. In re Sneed, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983) (claims are to be given their broadest reasonable interpretation consistent with the specification and should be read in light of the specification).

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In light of the foregoing, we are convinced that an artisan would have combined the polyolefin-stabilizer of Mathis with the deactivated catalyst containing polyolefin of Turner based upon a reasonable expectation of success. In re O'Farrell, id.

A contrary conclusion is not supported by the Staniek declaration for a number of reasons. In the first place, the declaration does not address the active versus inactive catalyst issue discussed above and indeed appears to be limited to a polypropylene which contains active third generation catalyst. It follows that appealed independent claim 1, which encompasses active as well as inactive catalysts, is much broader in scope than the Staniek declaration.

Analogously, this claim encompasses all forms of polyolefin and all forms of Generation II, III, IV, and V catalyst and therefore is much broader in scope than the declaration which is limited only to polypropylene as a polyolefin and to a specific third generation catalyst. Additionally, the independent claim on appeal encompasses a wide variety of compounds in the claimed definition of component a) whereas the declaration tests only two compounds

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which fall within this definition, namely, declaration compounds 5 and 6.²

For the above stated reasons, it is clear that the declaration evidence proffered by the appellant is considerably more narrow in scope than the argued claim on appeal. We remind the appellant that evidence presented to rebut a prima facie case of obviousness must be commensurate in scope with the claims to which it pertains and that such evidence which is considerably more narrow in scope than the claimed subject matter is not sufficient to rebut the prima facie case. In re Dill, 604 F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979). Under these circumstances, it our determination that the evidence before us on this appeal, on balance, weighs most heavily in favor of an obviousness conclusion. We shall sustain, therefore, the examiner's

² With further regard to this point, we note that the inventive and comparison results exhibited by declaration compound 6 (e.g., see Table 3) do not appear to be significantly or statistically different. Viewed from this perspective, it is questionable whether the compound 6 results (even when considered in a light most generous to the appellant) could be properly characterized as unexpected. The appellant and the examiner should address this issue in any further prosecution that may occur.

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section 103 rejection of claims 1, 3, 6 and 8-11 as being unpatentable over Mathis taken with Kaminsky, Turner and Ewen.

The decision of the examiner is affirmed.

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

AFFIRMED

| | | | |
|--------|-----------------------------|---|---------------|
| | Bradley R. Garris |) | |
| | Administrative Patent Judge |) | |
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| | Paul Lieberman |) | BOARD OF |
| PATENT | Administrative Patent Judge |) | APPEALS AND |
| | |) | INTERFERENCES |
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| | |) | |
| | Catherine Timm |) | |
| | Administrative Patent Judge |) | |

BRG:tdl

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