

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 39

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDWIN SEUBERT and DIETER SOHN

Appeal No. 96-0011
Application No. 07/993,896¹

HEARD: May 6, 1999

Before KIMLIN, WARREN, and LIEBERMAN, Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 3 through 7 as amended under 37 C.F.R. § 116 after the final rejection. See the amendment dated July 5, 1994, paper No. 20 and the advisory action dated July 15, 1994.

¹ Application for patent filed December 18, 1992.

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THE INVENTION

Appellants invention is directed to a lubricating grease containing a base oil consisting of an aromatic ester of a di, tri, or tetra carboxylic acid with one or more C₇ to C₁₈ alkanols combined with a polyurea thickening agent which is the reaction product of an aromatic mono or polyisocyanate with an aliphatic primary amine having an alkyl or alkenyl residue of 8 carbon atoms to 22 carbon atoms.

THE CLAIMS

Claim 3 is illustrative of appellant's invention and is reproduced below.²

3. A lubricating grease composition comprising 78.95 to 83.95 percent by weight of a base oil consisting of an ester of an aromatic di-tri- or tetracarboxylic acid with one or more

² The claims presented in appellant's appendix are incorrect. Claim 3 was submitted by appellants on January 30, 1992, paper no. 9. It was amended on October 25, 1993 by correction of a formula and insertion of, "consisting of" to line 2 of claim 3. In an amendment after final, dated July 5, 1994, a further amendment was submitted deleting the phrase, "or an aryl residue with 6 to 10-C atoms." This amendment was entered by the examiner for purposes of appeal. See the advisory action, dated July 15, 1994. We find no basis on the record before us for the limitation, "consisting of" in line 5 of claim 3 as it appears in appellant's Appendix. Accordingly, claim 3 before us is the one supra.

C₇-C₁₈-alkanols and 15 to 20 percent by weight of polyurea thickening agent which is the reaction product of a compound of the general formula



with an amine of the general formula H₂N-R (II), in which

A = CH_{4-n}

B = aromatic mono- or di- isocyanate residue,

n = 1 - 3,

R = alkyl or alkenyl residue with 8 to 22-C-atoms;

and in which the mixture of the basic oil and the thickening agent has a consistency with a penetration of 220-385, 0.1 mm.

THE REFERENCES OF RECORD

As evidence of obviousness, the examiner relies upon the following references of record.

Pine	3,299,110	Jan.
17, 1967		
McGrath et al. (McGrath)	3,326,802	Jun.
20, 1967		
Hedenburg et al. (Hedenburg)	3,374,170	Mar.
19, 1968		
McCoy	3,620,695	Nov. 16,
1971		
Ehrlich	3,879,305	Apr. 22,
1975		
Bailey	4,065,395	Dec. 27,
1977		

THE REJECTIONS

Claims 3 through 7 stand rejected under 35 U.S.C. § 103 as unpatentable over Ehrlich in view of Hedenburg, McGrath, Pine, McCoy, and Bailey.

OPINION

Appellants have stated that claims 4 - 7 stand or fall with claim 3. See appellant's Brief, page 2. Accordingly, our discussion will be confined to claims 3, the only independent claim. See 37 CFR 1.192(c)(5)(1993).

We have carefully considered appellants' arguments for patentability. However, we are essentially in agreement with the examiner that the claimed subject matter is unpatentable in view of the applied prior art. Accordingly, we will sustain the examiner's rejection.

The sole issue before us is whether the examiner has established a prima facie case of obviousness based upon the rejection of record. See Brief, page 1. Appellants argue in that respect that, "none of the six references cited discloses the particular polyurea specified in claim 3." See Brief, page 5. We disagree.

The examiner has established a prima facie case of obviousness by relying on the Ehrlich reference as disclosing a

lubricating grease containing a synthetic oil and appellant's polyurea. The subject matter of claim 3 requires the presence of a polyurea which is the reaction product of a mono or di aromatic isocyanate with an aliphatic primary amine having 8 to 22 carbon atom alkyl or alkenyl groups. Although Ehrlich's polyurea requires the presence of a diamine in addition to the claimed reactants, said component is not excluded from the claimed polyurea. See Ehrlich, column 1, lines 45 - 51. While the claimed polyurea is the reaction product of two components, our construction of the claimed subject matter provides that the reaction may have any number of additional components present, provided only that the required reactants of the claimed subject matter are present. Based upon the above interpretation, the polyurea of Ehrlich reads on the polyurea of claim 3.

Furthermore, Ehrlich discloses that the polyurea thickening agent may be present in proportions of 2 to about 20% by weight, overlapping the range required by the claimed subject matter. See column 2, line 23 - 24.

The other component required by the claimed subject matter is a base oil consisting of an ester of an aromatic di,

tri or tetra carboxylic acid with one or more C₇ - C₁₈ alkanols. Ehrlich discloses synthetic oils including aliphatic and aromatic esters. See column 2, lines 30 -44. Typical synthetic vehicles disclosed include exemplary base oils such as dibutyl phthalate. Our analysis of Ehrlich leads us to conclude that the synthetic lubricating oils disclosed are exemplary and typical of others that may be used in their place. Accordingly, Ehrlich's disclosure invites the use of other synthetic lubricating oils. While Ehrlich does not disclose the specific synthetic oils of the claimed subject matter, both McGrath and Pine teach additional synthetic ester compositions useful as lubricating oils or lubricants within the scope of the claimed subject matter.

McGrath discloses synthetic ester lubricants which are dibasic esters of both aliphatic and aromatic acids. Included in the synthetic esters are phthalic acid esters of C₇ - C₁₈ alkanols encompassed by the claimed subject matter. See column 2, lines 53 through column 3, line 16.

Pine likewise discloses synthetic ester lubricants having alkyl groups encompassing the limitations of the claimed subject matter. See column 2, lines 30 - 36 and column 3, line

39. Based upon the above considerations we concur with the examiner that it would have been prima facie obvious for one of ordinary skill in the art to select the aromatic dicarboxylic acid esters of either McGrath or Pine as suitable synthetic oils in the lubricating grease composition of Ehrlich, as Ehrlich's synthetic oils are merely exemplary of those which may be used, and Ehrlich invites the use of other synthetic lubricants.

We further conclude that the prior art would have suggested to those of ordinary skill in the art that they should have made the claimed subject matter and has revealed that in so making or carrying out, those of ordinary skill in the art would have had a reasonable expectation of success. See In re Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991)

Although appellant's principal Brief does not present any argument for patentability based on objective evidence of non-obviousness, appellants in their Reply Brief mention that the specification data demonstrates that the claimed compositions exhibit exceptional noise dampening properties. After careful consideration, we conclude that appellants have not established

that such results would have been truly unexpected to one of ordinary skill in the art in view of McGrath's teaching of the overall superiority in the physical properties of synthetic lubricating oils over mineral lubricating oils. See column 1, lines 39 - 43. Thus, one of ordinary skill in the art would expect the use of synthetic lubricating oils in place of mineral oils to result in a superior grease. Accordingly, expected beneficial results are evidence of obviousness of a claimed invention just as unexpected beneficial results are evidence of unobviousness. In re Skoner 517 F.2d 947, 950, 186 USPQ 80, 82 (CCPA 1975).

It is also well settled that the burden of demonstrating unexpected results rests on the party asserting them and the evidence must show that the results are really "unexpected." In re Merck & Co, 800 F.2d 1091, 1099, 231 USPQ 375, 381 (Fed. Cir. 1986); In re Klosak, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972). In the present case, appellants have not established that the comparative lubricating agent made from mineral oil and polyurea would form the basis of a proper comparison. It is not known whether that polyurea lies within the scope of the claimed subject matter. Nor is it known

whether the proportion of mineral oil and polyurea lie within the scope of the claimed subject matter. Accordingly, appellants have not established on the record before us that the results reported in the specification would have been truly unexpected to one of ordinary skill in the art.

Accordingly, the examiner's decision rejecting claims 3 through 7 is affirmed.

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

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

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AFFIRMED

Prepared: June 8, 2000