

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(2) is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BERNHARD RIEGER,
VOLKER REIFFENRATH,
and REINHARD HITTICH

Appeal No. 1995-5117
Application 08/067,154

ON BRIEF

Before GARRIS, OWENS, and ROBINSON, Administrative Patent
Judges.

GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal which involves claims 2
through 6, 10 through 16 and 18 through 20. Via an amendment
filed subsequent to the notice of appeal, claim 6 was

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canceled. Further, on page 8 of the answer, the examiner in effect has withdrawn her sole final rejection of claim 11 as being inappropriate. As a result of this withdrawal, there is no outstanding rejection of this claim on the record before us, and therefore the subject appeal of claim 11 is hereby dismissed. As a consequence of the foregoing, only claims 2 through 5, 10, 12 through 16 and 18 through 20 remain before us on this appeal. The only other claim pending in the above identified application, which is claim 21, has been allowed by the examiner.

The subject matter on appeal relates to a nematic liquid crystal mixture and to the matrix liquid crystal display which includes this mixture. The mixture comprises one or more compounds defined by the respective formulas recited in appealed independent claims 4¹ and 10. A copy of these

¹By an apparently inadvertent oversight, the last clause of claim 4 contains the recitation "said liquid comprises" which lacks strict antecedent basis and which plainly should read

-- said liquid crystal mixture comprises -- (cf., amendment B of Paper No. 6 in parent application 07/688,481). This informality should be corrected in any further prosecution that may occur.

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claims, taken from the appendix of the appellants' brief, is attached to this decision.

The following references are relied upon by the examiner in the rejections before us:

Weber et al.	5,122,295	Jun. 16, 1992
(Weber)		(PCT filed Oct. 17, 1989)

Rieger et al.	5,286,411	Feb. 15, 1994
		(PCT filed Apr. 12, 1991)

Claims 4, 5 and 12 are rejected under the judicially created doctrine of obviousness-type double patenting over claims 1 and 7 of the Rieger patent.

Claims 2, 3, 10, 13 through 16 and 18 through 20 are rejected under 35 U.S.C. § 103 as being unpatentable over Weber.

The appellants have separately grouped the claims before us in the manner indicated on page 3 of the brief, and we will separately consider the appealed claims as separately grouped by the appellants. 37 CFR § 1.192(c)(5)(1993).

We refer to the brief and reply brief and to the answer for a complete exposition of the opposing viewpoints expressed by the appellants and by the examiner concerning the above noted rejections.

OPINION

For the reasons set forth below, we will sustain each of these rejections.

Concerning the obviousness-type double patenting rejection, the appellants argue that the subject matter defined by the claims of the Rieger patent (i.e., see formula V of patent claim 1) is merely generic to, and would not have suggested, the subject matter defined by appealed claim 4. It cannot be

gainsaid, however, that compounds of the type defined by the formula recited in appealed claim 4 would result from the appropriate selection of choices recited in Rieger's patent claim 1. In particular, selecting for formula V of patent claim 1 one of the two choices for r (namely, the numeral 1) and any one of three out of five choices for substituent X (namely, Cl, CF₃ or OCF₃) would have yielded compounds within the scope of those defined by the appealed claim 4 formula.

The above discussed circumstances reveal clearly that the liquid crystal mixture in the matrix liquid crystal display defined by appealed claim 4 substantially overlaps the liquid-crystalline medium in the electrooptical liquid-crystal

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display claimed by Rieger (i.e., see patent claims 1 and 7 respectively). Contrary to the appellants' belief, the mere fact that Rieger's patent claim 1 embraces a number of other compounds in the liquid-crystalline medium which do not fall within the scope of appealed claim 4 does not forestall an obviousness conclusion with respect to those compounds embraced by Rieger's patent claim 1 which do fall within the scope of appealed claim 4. Although the number of compounds embraced by the genus defined by Rieger in his claim 1 may be relatively large, an artisan with ordinary skill would have considered each of these compounds as being obvious and effective components of patentee's claimed liquid-crystalline medium. Merck & Co. v. Biocraft Labs., Inc., 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir. 1989). In light of the foregoing, it is our conclusion that the above mentioned compounds embraced by formula V of Rieger's patent claim 1, which correspond to those defined by the formula in appealed claim 4, would have been obvious to an artisan with ordinary skill.

The appellants further argue that the characteristics defined by appealed claim 4 relating to birefringence,

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transmission minimum and voltage holding ratio are not taught and would not have been suggested by the claims of Rieger. As properly indicated by the examiner, however, these characteristics would have been inherently possessed by those compounds embraced within claim 1 of Rieger which correspond to the compounds embraced within appealed claim 4. Stated otherwise, the discovery of an unknown property of previously disclosed compounds or compositions cannot impart patentability to claims directed to such compounds or compositions. In re May, 574 F.2d 1082, 1089, 197 USPQ 601, 607 (CCPA 1978) and In re Spada, 911 F.2d 705, 708-709, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990).

As a consequence of the above analysis, we will sustain the examiner's obviousness-type double patenting rejection of appealed claims 4, 5 and 12 as being unpatentable over claims 1 and 7 of the Rieger patent.

Arguments similar to those addressed earlier are presented by the appellants concerning the examiner's section 103 rejection based on Weber. While we appreciate that Weber's disclosure is generic in nature, the fact remains that compounds defined by formula IIc of Weber (see columns 5 and

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6) overlap those defined by the formula recited by independent claims 10 and 15. It is true that the substituent choices offered by patentee for his formula IIc are larger in scope than those offered by the appellants via independent claims 10 and 15. Nevertheless, as explained previously, each of the choices offered by Weber would have been obvious to an artisan with ordinary skill. Merck & Co. v. Biocraft Labs., Inc., id. Moreover, as also previously explained, the mere fact that the claims under consideration recite characteristics or properties not appreciated by Weber does not forestall a conclusion of prima facie obviousness. In re May, id. and In re Spada, id.

For these reasons, we conclude that the Weber reference evidence adduced by the examiner establishes a prima facie case of obviousness with respect to the here rejected claims. In rebuttal of this prima facie case, the appellants proffer the Rieger declaration of record as evidence of unexpected results. In this declaration, at least one inventive compound is compared with a number of other compounds including 4

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compounds exemplified by the Weber reference². According to the appellants, this comparison reveals that the inventive compounds exhibit high values for optical anisotropy as well as for dielectric anisotropy and simultaneously relatively broad nematic phase ranges relative to the other tested compounds including those of Weber (see page 4 of the declaration). As background, the declarant explains that in the prior art such properties were obtained only by using a mixture of liquid crystalline components rather than a single compound (see page 2 of the declaration).

This declaration contains a number of deficiencies which severely limit its probative value. In the first place, the declaration involves at most only two (i.e., compound No. 7 on declaration page 3 and apparently compound No. 12 on declaration page 4) of the myriad number of compounds embraced within the formulas recited by independent claims 10 and 15. Thus, the declaration evidence is considerably more narrow in

²On the record before us, it is unclear whether these 4 compounds represent the closest prior art compounds exemplified by Weber as determined by the guidelines set forth in In re Merchant, 575 F.2d 865, 869, 197 USPQ 785, 787 (CCPA 1978). This issue should be addressed and resolved by the appellants and the examiner in any further prosecution that may occur.

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scope than the here claimed subject matter relative to the number of compounds under consideration.

The declaration evidence is also considerably more narrow in scope than the rejected claims in relation to the properties discussed in the declaration. That is, of the three properties discussed in the declaration (i.e., optical anisotropy or birefringence, dielectric anisotropy and nematic phase ranges), only two are required by the rejected claims (i.e., birefringence and dielectric anisotropy). Further in this regard, while the declaration emphasizes that single inventive compounds possess all three of these properties, the claims under review not only address merely two of these three properties but require only that these properties be displayed by the liquid crystal mixture rather than by a single compound within the scope of the recited formula. The significance of these comments regarding the properties discussed in the appellants' declaration is emphasized by the fact that many of the declaration noninventive compounds (see compounds Nos. 8, 10, 11, 13, 14 and 15 on declaration pages 3 and 4) exhibit at least two properties which correspond to those exhibited by the tested inventive compounds (i.e., see compound Nos. 7 and

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12) as well as the corresponding property values recited by independent claims 10 and 15.

It is well settled 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 evidence offered by way of a declaration which is considerably more narrow in scope than claimed subject matter is not sufficient to rebut a prima facie case of obviousness. In re Dill, 604 F.2d 1356, 1361, 202 USPQ 805, 808 (CCPA 1979). As explained above, the Rieger declaration evidence of record is considerably more narrow than the independent claims under consideration. Therefore, it is our conclusion that the evidence before us, on balance, weighs most heavily in favor of an obviousness conclusion with respect to the claimed subject matter under consideration.

We will sustain, therefore, the examiner's section 103 rejection based on Weber of claims 2, 3, 10, 13 through 16 and 18 through 20.

The decision of the examiner is affirmed.

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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)	
)	
)	
)	
	Terry J. Owens)	BOARD OF
PATENT	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
	Douglas W. Robinson)	
	Administrative Patent Judge)	

tdl

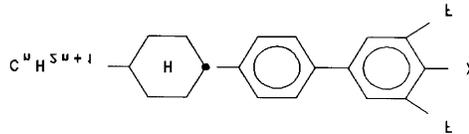
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APPENDIX

X Ήα CJ' CE³' OCE³.
 u Ήα Γ-Γ0' αυγ
 μρεερεΉν



εοκωηΉε

αΉτγ ΉΉδηΉτγ αοωδκΉτσεε ονε οτ ωοτε αοωδονητγα οΉ εΉε
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 ηοηκα εχβοαηκε εο ηΛ-ΉΉδμτ (Σ80-Ή00 ημ' ΉΣ ηΜ\CM³) αυγ λοΉτσεδε
 μρεερεΉν εΉε κΉεττο οΉ λοΉτσεδε ηοΉτγμδ κΉεττο ΗΒ³⁰ εΉεεε Σ0
 γ. νμ'

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 αΉτγ γΉαβΉελ ρεΉμδ οβεηεεεεγ Ήν εΉε αεεονγ οτ ε ηΉδμεε

ε ρΉεεΉεμδενεε νμ οΉ εΉοω 0.ΉΣ-0.Σ0'

αΉτγ αεΉΉ' ηαε ε βοαΉεΉεε γΉεΉεεεεεεε αυτοαεεοβλ αυγ

- ε ηεωαεεεε ΉΉδηΉτγ αηηαεεΉ ηΉεεηκε μΉεεμ εΉε εηεαεεεε Ήν αυγ

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- εωο ηΉεηε εαεεΉεεεε αηηβοεεεε ηΉεεεε μΉεεμ εοδεεεεε

αυγ ηΛ-αεεεεεεεεεε αοωδκΉεΉμδ

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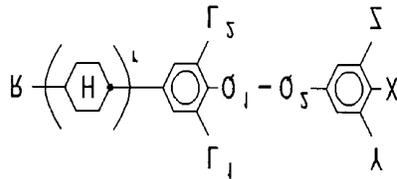
οξ αφ ιεσατ +φ αυq α ριτεικινδενσε νu οξ αφ ιεσατ 0'ΙΣ·
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3'2-qτεετuοο-Γ'φ-δμευλτενε αυq εμε οεμετ οξ 0_τ αυq 0_ς ια α
 ουε οξ 0_τ αυq 0_ς ια Γ'φ-δμευλτενε' 3-ετuοο-Γ'φ-δμευλτενε οκ
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ατκευλτ οκ ατκοχλ οξ Γ-Σ C εεουα:

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Β ια ατκλτ οκ ατκοχλ οξ ηβ εο Ι0 C εεουα:
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οκ uοεε εομβουεα οξ εμε εοτμνηε
 εuο εομβουεεα μπειρετu αφ ιεσατ ουε οξ αυτq εομβουεεα ια ουε
 Ι0· υ νεωαεεεε ιττδητq εελεεεετ πιχρνε εομβεεεετμδ αφ ιεσατ