

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

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte URS LEHMANN and MARCEL FRICK

Appeal No. 1997-3189
Application 08/592,898

ON BRIEF

Before PAK, OWENS and WALTZ, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the examiner's maintaining the final rejection as to claim 25 which was added after final rejection, and claims 7-9 which were amended after final rejection to depend therefrom.

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THE INVENTION

Appellants claim a dye mixture which consists essentially of at least one 1:2 cobalt complex dye of a formazan compound having a specified formula, and at least one other dye of recited formulas. Appellants state that "[t]he dye mixtures are particularly suitable for dyeing or printing natural and synthetic polyamide fibre materials, dyeings or prints having good fastness being obtained" (abstract). Claim 25 is illustrative and is appended to this decision.

THE REFERENCES

References relied upon by the examiner

Balliello et al. (Balliello) 1990	4,944,768	Jul. 31,
J.R. Geigy Co. (Geigy '438) ¹ 1964 (French patent application)	1,370,438	Jul. 15,
J.R. Geigy A.-G. (Geigy '464) 1966 (Great Britain patent application)	1,019,464	Feb. 9,

References relied upon by appellants

C.L. Bird, *The Theory and Practice of Wool Dyeing* 79 (The Society of Dyers and Colourists 1972).

¹ An English translation of Geigy '438 is provided to appellants with this decision.

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VII *The Chemistry of Synthetic Dyes* 93 (K. Venkataraman ed., Academic Press 1974) (Venkataraman).

THE REJECTION

Claims 7-9 and 25 stand rejected under 35 U.S.C. § 103 as being unpatentable over Balliello in view of Geigy '438 or Geigy '464.

OPINION

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with the examiner that the claimed invention would have been obvious to one of ordinary skill in the art at the time of appellants' invention over the applied references. Accordingly, we affirm the aforementioned rejection.

Appellants state that the claims stand or fall together (brief, page 4). We therefore limit our discussion to one claim, i.e., claim 25. See *In re Ochiai*, 71 F.3d 1565, 1566 n.2, 37 USPQ2d 1127, 1129 n.2 (Fed. Cir. 1995); 37 CFR § 1.192(c)(7)(1995). The examiner states that Geigy '438 and Geigy '464 are equivalents (answer, page 3), and our review of the references indicates that their disclosures are essentially the same. Consequently, we limit our discussion

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to one of the references, i.e., Geigy '464.

Appellants acknowledge that dyes 26 and 53 of Geigy '464 are formazan dyes which fall within the scope of formula 8 in appellants' claim 25 (brief, page 6). The examiner finds (answer, page 3) that all of the dyes in claim 25 except those of formula 8 are exemplified in columns 3-7 of Balliello and that Balliello discloses use of mixtures of dyes of the types in columns 3-7 together with formazan dyes (col. 1, lines 29-60). Appellants do not challenge this finding. Thus, the question to be decided is whether one of ordinary skill in the art would have been led by the references to use dyes 26 and 53 of Geigy '464 in combination with the dyes in columns 3-7 of Balliello which fall within the scope of appellants' formulas.

Appellants argue that Balliello merely makes reference at one point to formazan dyes, among many other types of dyes, lists nearly all metals normally used in formazan dyes, does not indicate whether 1:1 or 1:2 metal complex formazan dyes should be used and what substituents should be present in those dyes, and discloses azo dyes as the only preferred metal complex dyes (brief, pages 4-5). Geigy '464, appellants

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argue, does not suggest using mixtures of cobalt complex formazan dyes with any other type of dye (brief, page 6). In appellants' view, it would have at best been obvious to try various types of formazan dyes in Balliello's mixtures (brief, page 6).

For the following reasons, it is our opinion that the Balliello and Geigy '464 disclosures are sufficient to establish a *prima facie* case of obviousness of appellants' claimed invention.

Balliello teaches that the dyes are useful for dyeing wool and polyamides and can be in the form of a mixture of dyes including formazan dyes (col. 1, lines 9-12 and 29-60). Geigy '464 teaches that the disclosed formazan dyes are useful for dyeing wool and polyamides (page 4, lines 47-50), and that compared to previously known copper complexes which contain one metal atom per mole of formazan dyestuff, they dye mixtures of different qualities of wool more evenly and in shades which have better light fastness (page 4, lines 59-62). This teaching that the Geigy '464 formazan dyes are used for the same purpose as the Balliello dyes and provide an improvement relative to previously known formazan dyes would

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have fairly suggested, to one of ordinary skill in the art, use of the Geigy '464 dyes as the formazan dyes in the Balliello mixtures.

Geigy '464 exemplifies 80 dyes, two of which, as discussed above, fall within the scope of formula 8 of appellants' claim 25. Although the reference discloses a broad genus of formazan dyes (page 1, lines 10-30), the reference reasonably would have led one of ordinary skill in the art to use any of the limited number of exemplified dyes. A large number (80) of dyes are exemplified. However, the fact that many are disclosed would not have made any of them less obvious, particularly where, as here, the formazan dyes recited in appellants' claim are used for the identical purpose taught by the reference. *See Merck & Co. v. Biocraft Laboratories, Inc.*, 874 F.2d 804, 807, 10 USPQ2d 1843, 1846 (Fed. Cir.), *cert. denied*, 493 U.S. 975 (1989); *In re Lemin*, 332 F.2d 839, 841, 141 USPQ 814, 815 (CCPA 1964).

Appellants' above-noted argument that Geigy '464 does not disclose use of the formazan dyes in combination with other dyes is not persuasive because use of such mixtures is

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disclosed by Balliello (col. 1, lines 53-60). Appellants' above-noted argument that the only metal complex dyes which Geigy '464 indicates as being preferable are azo dyes is not convincing because the reference is not limited to its preferred embodiments. See *In re Kohler*, 475 F.2d 651, 653, 177 USPQ 399, 400 (CCPA 1973); *In re Mills*, 470 F.2d 649, 651, 176 USPQ 196, 198 (CCPA 1972). Instead, all disclosures in the reference must be evaluated for what they would have fairly suggested to one of ordinary skill in the art. See *In re Boe*, 355 F.2d 961, 965, 148 USPQ 507, 510 (CCPA 1966).

As for appellants' above-noted argument that the references at best would have rendered appellants' claimed invention obvious to try, the teachings in the references discussed above, i.e., that mixtures of Balliello' exemplified dyes within appellants' formulas can be used in combination with formazan dyes for dyeing wool and polyamides and that the Geigy '464 dyes are beneficial relative to known formazan dyes for the same purpose, would have provided one of ordinary skill in the art with both a motivation to use the Geigy '464 formazan dyes in admixture with Balliello's exemplified dyes

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within appellants' formulas, and with a reasonable expectation of success in doing so. Thus, such a combination of dyes would have been *prima facie* obvious to one of ordinary skill in the art. See *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991); *In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988).

Appellants argue, in reliance upon *In re Baird*, 16 F.3d 380, 29 USPQ2d 1550 (Fed. Cir. 1994), that there is no limit on Balliello's formazan dyes (brief, page 5). Unlike *Baird*, however, where a nondisclosed specie of a very large genus was claimed and nothing led to that specie, see *Baird*, 16 F.3d at 382, 29 USPQ2d at 1552, Geigy '464 specifically discloses two of appellants' formazan dyes. Use of these disclosed dyes would have been *prima facie* obvious to one of ordinary skill in the art for the reason discussed above.

In support of appellants' argument that the applied references would have rendered the claimed invention merely obvious to try, appellants rely upon *In re Geiger*, 815 F.2d 686, 2 USPQ2d 1276 (Fed. Cir. 1987). In that case, however, the court did not find a suggestion in the references, two of

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which were directed toward treating cooling water and one of which was directed toward treating boiler water, to combine the materials disclosed in each reference. See *Geiger*, 815 USPQ at 688, 2 USPQ2d at 1278. In the present case, as discussed above, the dyes in both references are used for the same purpose, and Balliello discloses using formazan dyes, which are the type of dye disclosed by Geigy '464, in Balliello's dye mixture. Thus, unlike in *Geiger*, the references in the present case would have fairly suggested, to one of ordinary skill in the art, combining the dyes in these references.

Appellants argue that Venkataraman's disclosure that "[t]he behavior of dyes when applied from a mixture is in many cases quite different from their behavior when applied as individual components" (page 93) indicates that the mere fact that a dye is useful alone does not suggest that it would be useful in combination with dyes of other classes (brief, page 7). In the present case, as discussed above, Balliello would have fairly suggested, to one of ordinary skill in the art, using formazan dyes in combination with Balliello's dyes

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falling within appellants' formulas.

Appellants argue that Bird indicates that one of ordinary skill in the art would have been aware that dyes should be selected such that their exhaustion and migration rates are nearly the same and there is a high degree of compatibility of the dyes (brief, pages 8-9). Bird teaches that the dyes in dye mixtures should be as alike as possible in fastness characteristics and dying behavior so they exhaust at the same rate such that as the dyed garment fades, it becomes paler without changing hue (page 79). In the present case, the teachings that Balliello's dyes which fall within appellants' formulas are useful in admixture with formazan dyes, and the teachings that both Balliello's dyes and those of Geigy '464 are useful for dyeing the same materials, i.e., wool and polyamides, would have provided one of ordinary skill in the art with a reasonable expectation that the dyeing characteristics of Balliello's dyes which fall within appellants' formulas and the Geigy '464 formazan dyes are such that they are suitable for use together. For a *prima facie* case of obviousness to be established, such a reasonable expectation of success, not absolute certainty, is all that is

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required. See *O'Farrell*, 853 F.2d at 902, 7 USPQ2d at 1680.

Because a *prima facie* case of obviousness has been established which has not been effectively rebutted by appellants, we affirm the examiner's rejection.

DECISION

The rejection of claims 7-9 and 25 under 35 U.S.C. § 103 over Balliello in view of Geigy '438 or Geigy '464 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

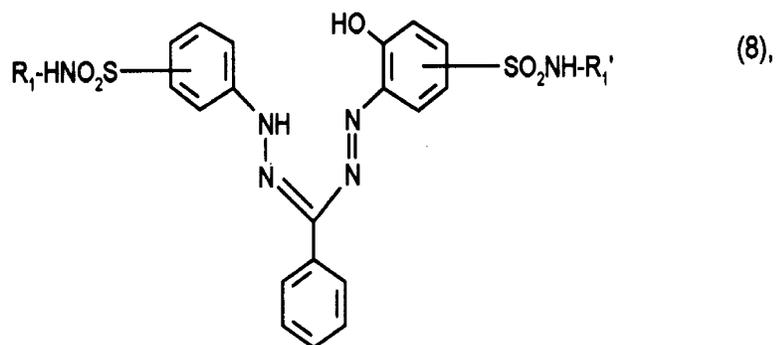
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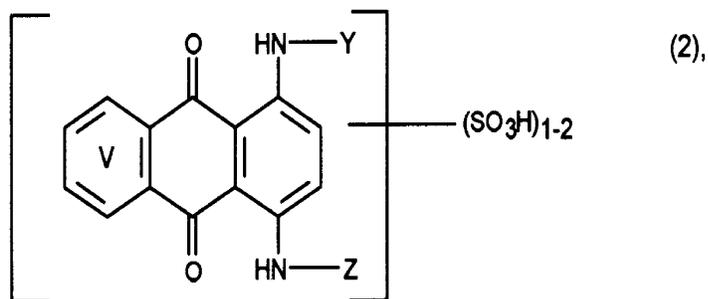
APPENDIX

25. A dye mixture wherein the dyes consist essentially of at least one 1:2 cobalt complex dye of a formazan compound of the formula



in which R_1 and R_1' independently of one another are hydrogen or C_1 - C_4 alkyl and the phenyl radicals of the compound of the formula (8) contain no further substituents or are further substituted by C_1 - C_4 alkyl, C_1 - C_4 alkoxy, C_2 - C_4 alkanoylamino, C_1 - C_4 alkylsulfonyl, C_1 - C_4 hydroxyalkylsulfonyl, halogen, sulfo, hydroxyl, carboxyl or nitro,

together with at least one anthraquinone dye of the formulae (2) and (11)



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