UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte CHRISTINE RONDEAU

Appeal 2007-0100
Application 10/761,213
Technology Center 1700

Decided: January 29, 2007

Before EDWARD C. KIMLIN, CHUNG K. PAK, and CHARLES F. WARREN, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-42. A copy of illustrative claim 1 is appended to this decision.

The Examiner relies upon the following references as evidence of obviousness:

Mockli	WO 95/01772	Jan. 19, 1995
Kao Corp.	DE 295 12 302	Jan. 16, 1997
Cotteret	US 5,735,908	Apr. 7, 1998

Appellant's claimed invention is directed to a composition for dyeing keratin fibers comprising at least one of the recited cationic direct dyes and at least one cationic or amphoteric substantive polymer.

Appellant took an appeal in the Parent Application and, in a decision dated November 25, 2003, the Board sustained the Examiner's § 103 rejections of the same claims presently on appeal over the same prior art. Appellant, in the present case, relies on a Declaration of the inventor submitted under 37 C.F.R. § 1.132 as evidence, not of unexpected results, but to show that a prima facie case has not been established.

Appealed claims 1-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cotteret in view of Mockli. Claims 1-23, 32-36, and 41-42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kao in view of Mockli.

Appellant has not presented separate arguments for any particular claim on appeal. Accordingly, we will limit our consideration to the Examiner's rejections of claim 1.

We have thoroughly reviewed each of Appellant's arguments for patentability, as well as the declaration evidence relied upon in support thereof. However, for the reasons set forth in the Examiner's Answer and the prior Board decision, we find that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejections.

We consider first the § 103 rejection of claims 1-42 over Cotteret in view of Mockli. Appellant does not dispute that Cotteret teaches a composition for dyeing keratin fibers comprising cationic or amphoteric substantive polymers within the scope of the appealed claims and direct dyes. As acknowledged in Appellant's Specification, it was known in the art to vary the shades obtained with permanent, oxidation dyes by adding semi-permanent direct dyes to the composition. As recognized by the Examiner, Cotteret does not disclose the particular cationic direct dyes encompassed by the appealed claims. However, Appellant does not challenge the Examiner's finding that Mockli teaches the presently claimed cationic direct dyes in compositions used to dye keratin fibers, and explains that such cationic direct dyes

> can be used to achieve in a very simple way and under general conditions very deep dyeings having excellent light, shampoos and crock fastness properties. Owing to their extremely clean shades, they also extend the range of possible mixed shades considerably, especially in the direction of the increasingly important brilliant fashion colours.

(Mockli ¶ bridging pp. 1-2). Hence, based on the collective teachings of Cotteret and Mockli, we concur with the Examiner that one of ordinary skill in the art would have found it obvious to incorporate the claimed cationic direct dyes in the composition of Cotteret to realize the benefits described by Mockli. Also, since Cotteret teaches that the direct dyes may be added to compositions containing oxidation dyes and cationic or amphoteric substantive polymers, and Mockli discloses that the presently claimed cationic direct dyes may be formulated with cationic conditioning polymers, we find that one of ordinary skill in the art would have had the reasonable

expectation of success in formulating a compatible composition comprising Cotteret's ingredients in addition to the cationic direct dyes of Mockli. It is well settled that absolute predictability is not required for a finding of obviousness under § 103, but only a reasonable expectation of success. *In re O'Farrell*, 853 F.2d 894, 903-04, 7 USPQ2d 1673, 1681 (Fed. Cir. 1988).

We are not persuaded by Appellant's argument that "Mockli does not suggest using its dyes in a composition containing oxidation dyes" because Mockli states that increasing reservations are being voiced about possible toxicological risks posed by oxidation dyes. While Mockli discloses disadvantages associated with using oxidation dyes, Appellant, significantly, has presented no argument or objective evidence which demonstrates that the claimed compositions including oxidation dyes do not also pose the same toxicological risks. Certainly, there is no teaching in Mockli that the claimed cationic direct dyes cannot be used in conjunction with oxidation dyes.

Appellant's Declaration fails to undermine the prima face of obviousness established by the collective teachings of Cotteret and Mockli. The Declaration simply shows that a dyeing composition comprising a cationic or amphoteric substantive polymer and a *neutral* direct dye, as opposed to the cationic direct dyes of Mockli, produces more color variation. In our view, this evidence falls fall short of rebutting the prima facie obviousness of utilizing the cationic direct dyes of Mockli in the dyeing composition of Cotteret. The Declaration simply demonstrates that not *all* direct dyes achieve uniform coloring.

We now turn to the § 103 rejection of Kao in view of Mockli. There is no dispute that Kao, like Appellant, discloses a composition for dyeing

keratin fibers comprising direct dyes and the substantive conditioning polymers claimed by Appellant. Although Kao does not disclose the claimed cationic direct dyes, we are convinced, for the reasons set forth above with respect to the other § 103 rejection, that one of ordinary skill in the art would have found it obvious to employ the cationic direct dyes of Mockli in the dyeing composition of Kao. While Kao does not teach the specific direct dyes within the scope of the appealed claims, Kao does provide the relevant teaching that "the cationic (basic) dyes are particularly preferred since their stability and dye uptake properties are especially enhanced by the addition of the guar gum derivative according to the invention. (Kao translation 2 ¶ 4). We find that Kao's particular preference for cationic direct dyes would have clearly suggested the presently claimed cationic direct dyes which are disclosed by Mockli.

Appellant maintains that "Möckli fails to teach or suggest that any of its dyes would be compatible with Kao's guar gums" (Br. 19 ¶ 1). However, it is Kao that provides the relevant teaching that cationic dyes are particularly preferred in combination with guar gum derivatives which enhance their stability and dye uptake properties. Also, while Appellant points out that Mockli discredits the preferred cationic dyes of Kao, such discrediting is evidence why it would have been obvious for one of ordinary skill in the art to substitute the cationic direct dyes of Mockli for those used in Kao.

Appellant also relies upon the Declaration to show that a direct dye disclosed in Kao produces an inferior dyeing composition when used in combination with a guar gum. However, we did not find that a single example of inferior results attributed to the presence of guar gum negates the

obviousness of utilizing the claimed cationic direct dyes disclosed by Mockli in the dyeing composition of Kao. On balance, we find that the evidence of obviousness far outweighs the scant evidence of nonobviousness. Moreover, the Declaration example is not commensurate in scope with the appealed claims which, rather than excluding the presence of guar gum, actually encompass compositions comprising guar gum in accordance with the disclosure of Kao.

In conclusion, based on the foregoing, the Examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv)(2006).

AFFIRMED

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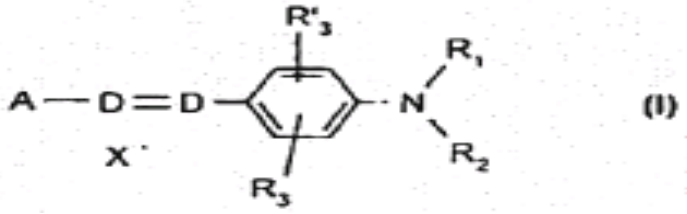
APPENDIX

1. A composition for dyeing keratin fibers, said composition comprising, in a medium suitable for dyeing,

(i) at least one cationic direct dye of formula (I), (II), (III), or (III′) below:

wherein, in said formula (I)



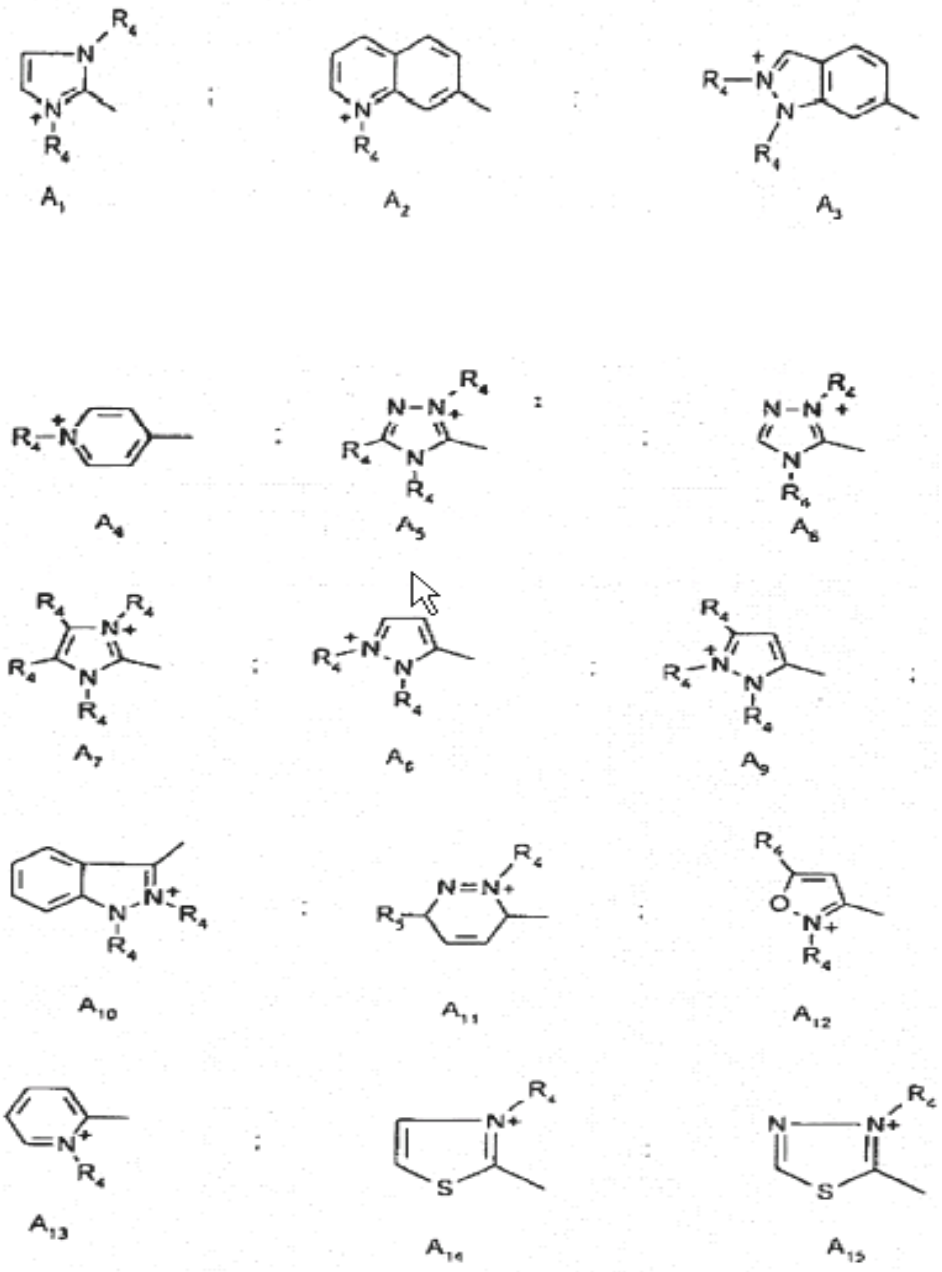
(D) represents a nitrogen atom and a –CH group,

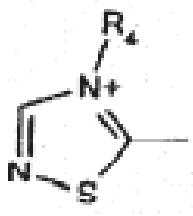
R_1 and R_2 are identical or different and represent a hydrogen atom, a C1-C4 alkyl radical which is unsubstituted or substituted with a –CN, -OH or NH_2, or R_1 and R_2 form, with a carbon atom of the benzene ring, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with one or more C_1-C_4 alkyl radicals or a 4′ aminophenyl radical;

R_3 and R'_3 are identical or different and represent a hydrogen atom, a halogen atom selected from chlorine, bromine, iodine and fluorine, a cyano group, a C_1-C_4 alkyl radical, or a C_1-C_4 alkoxy or acetyloxy radical;

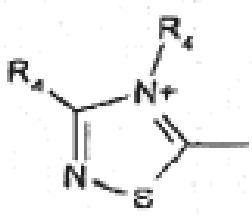
X- represents an anion;

A represents a group selected from structures A_1 to A_{17} and A_{19} below:



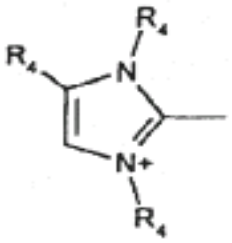


A_{16}



A_{17}

and



A_{19}

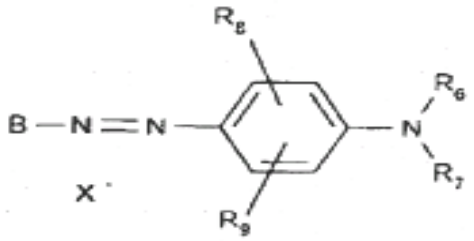
wherein

R_4 represents a C_1-C_4 alkyl radical which is unsubstituted or substituted with a hydroxyl radical; and

R_5 represents a C_1-C_4 alkoxy radical;

with the provisos that when D represents –CH, A represents A_4 or A_{13}, and R_3 is other than an alkoxy radical, then R_1 and R_2 do not simultaneously represent a hydrogen atom; and

when D represents N, A is chosen from A_1-A_3, A_5-A_{12}, A_{14}-A_{17} and A_{19};



(II)

wherein, in said formula (II):

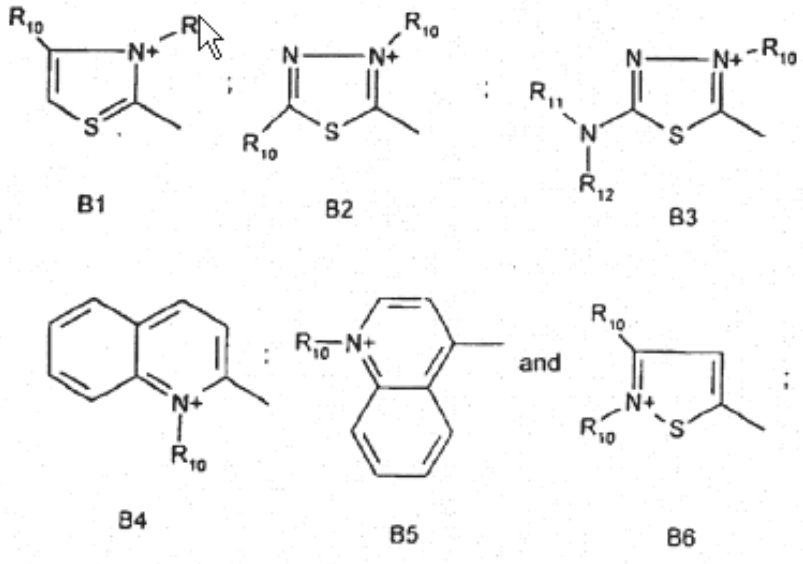
R_{16} represents a hydrogen atom or a C_1-C_4 alkyl radical;

R_7 represents a hydrogen atom, an alkyl radical which is unsubstituted or substituted with a –CN radical or with an amino group, and a 4′-aminophenyl radical, or R_7 forms, with R_6, a heterocycle containing at least one heteroatom chosen from oxygen and nitrogen and which is unsubstituted or substituted with a C_1-C_4 alkyl radical;

R_8 and R_9 are identical or different and represent a hydrogen atom, a halogen atom, a C_1-C_4 alkyl or C_1-C_4 alkoxy radical, or a –CN radical;

X- represents an anion;

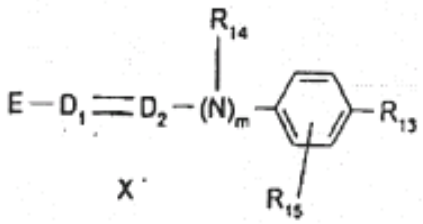
B represents a group selected from structures B1 to B6 below:



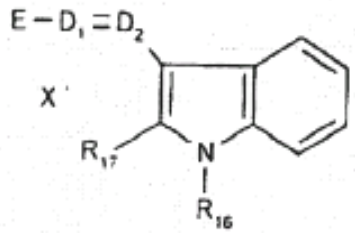
wherein

R_{10} represents a C_1-C_4 alkyl radical;

R_{11} and R_{12}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;



(III)



(III')

wherein, in said formulae (III) and (III′);

R_{13} represents a hydrogen atom, a C_1-C_4 alkoxy radical, a halogen atom, and an amino radical;

R_{14} represents a hydrogen atom, a C_1-C_4 alkyl radical, or R_{14} forms, with a carbon atom of the benzene ring, a heterocycle which is optionally oxygenated and/or substituted with at least one C_1-C_4 alkyl group;

R_{15} represents a hydrogen atom or a halogen atom;

R_{16} and R_{17}, which are identical or different, represents a hydrogen atom or a C_1-C_4 alkyl radical;

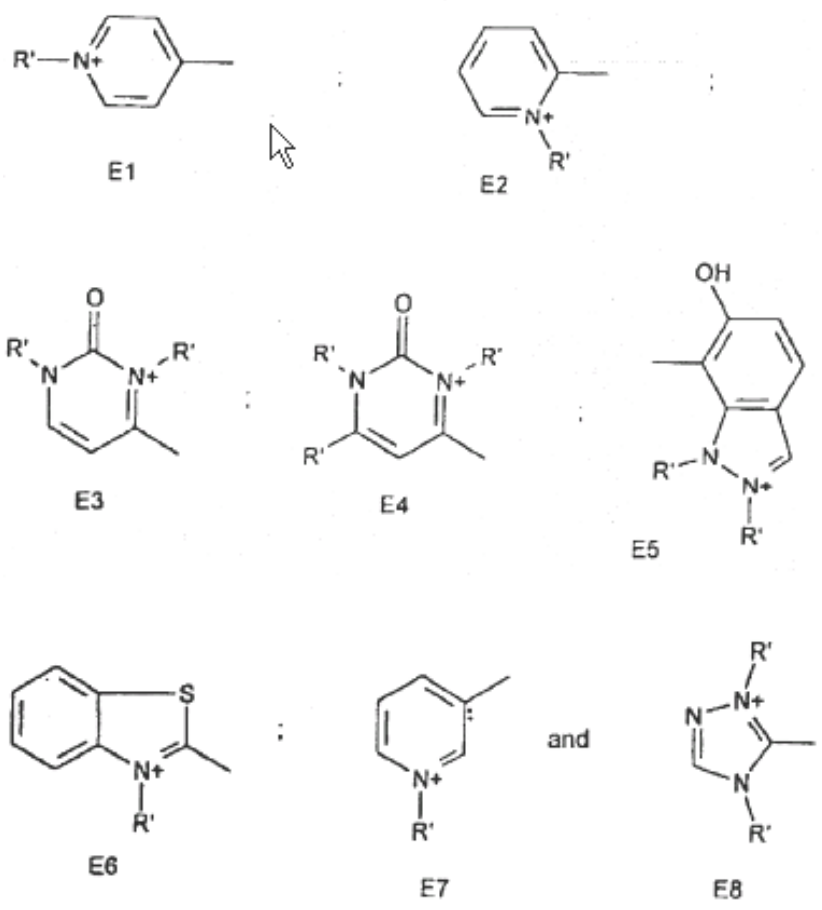
D_1 and D_2, which are identical or different, are chosen from a nitrogen atom and a –CH group;

m = 0 or 1;

with the proviso that when R_{13} represents an unsubstituted amino group, then D_1 and D_2 simultaneously represents a –CH group and m=0;

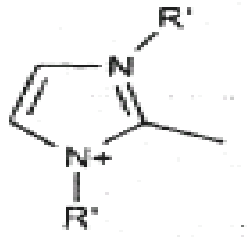
X′ represents an anion; and

E represents a group from structures E1 to E8 below:



wherein R′ represents a C_1-C_4 alkyl radical;

with the proviso that when m = 0 and D_1 represents a nitrogen atom, then E can also represents a group of structure E9 below;

E9 

wherein R′ represents a C_1-C_4 alkyl radical; with the further proviso that in said formula (III) when D_1 and D_2 are simultaneously a nitrogen atom, m=0, R_{13} is an amino radical and R_{15} is a hydrogen atom, then E is chosen from E_3 to E_5, E_7 and E_8; and

(ii) at least one cationic or amphoteric substantive polymer chosen from:

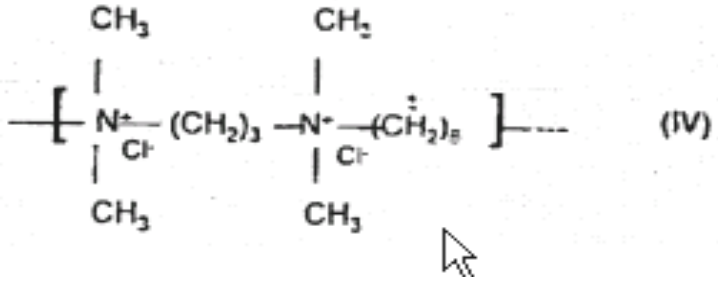
(a) cellulosic cationic derivatives with the exception of polymeric quatemary ammonium salts of hydroxyethyl cellulose reacted with a trimethyl ammonium substituted epoxide;

(b) copolymers of dimethyldiallylammonium halide and of (meth)acrylic acid;

(c) methacryloyloxyethyltrimethylammonium halide homopolymers and copolymers;

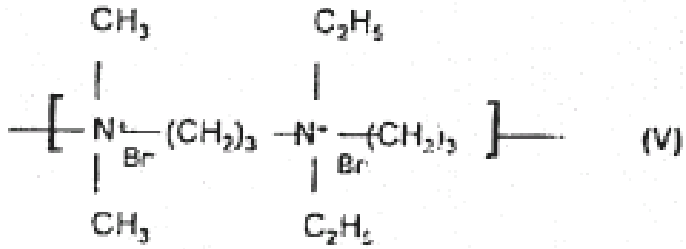
(d) polyquatemary ammonium polymers selected from;

- polymers of repeating units having formula (IV) below:



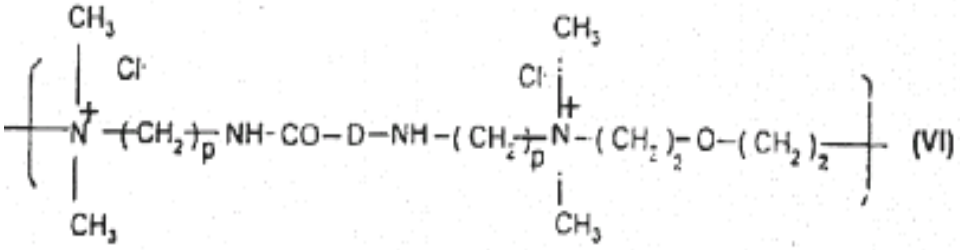
(IV)

- polymers of repeating units having formula (V) below:



(V)

- polymers of repeating units having formula (VI) below:



(VI)

wherein p represents an integer ranging from 1 to 6 approximately, D is zero or represents a group $-(CH_2)_r$-CO- wherein r represents a number equal to 4 or 7; and

(e) vinylpyrrolidone copolymers containing cationic units.