

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JANICE JEFFREY, JOHN S. PARK  
and BARRY STODDART

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Appeal No. 1999-2518  
Application 08/722,213

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ON BRIEF

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

*DECISION ON APPEAL*

This is an appeal from the examiner's final rejection of claims 1-25, which are all of the claims in the application.

*THE INVENTION*

The appellants' claimed invention is directed toward a detergent composition wherein a water-soluble builder, an enzyme and an organic peroxyacid bleach source have recited release

characteristics, and to a washing method using such a detergent composition. Claims 20 and 11 are illustrative:

20. A detergent composition comprising:

- (a) a water-soluble builder;
- (b) an enzyme; and
- (c) organic peroxyacid bleach source;

wherein a means is provided for delaying the release to a wash liquor of the enzyme relative to the release of the water-soluble builder such that in the T50 test method the time to achieve a concentration that is 50% of the ultimate concentration of the water-soluble builder is less than 60 seconds, and the time to achieve a concentration that is 50% of the ultimate concentration of the enzyme is more than 90 seconds, and further wherein a means is provided for delaying the release of the peroxyacid bleach such that in the T50 test method, the time to achieve a concentration that is 50% of the ultimate concentration of the peroxyacid bleach is more than 180 seconds.

11. A washing method comprising the steps of:

- (1) applying an enzyme-free solution of a composition containing a water-soluble builder to a soiled substrate;
- (2) allowing said solution to remain in contact with said soiled substrate for a period of time from 10 seconds to 1800 seconds; and
- (3) washing said soiled substrate in a wash liquor comprising from 0.000001% to 0.01%, by weight, active enzyme.

*THE REFERENCES*

Van Kralingen et al. (Van Kralingen)	5,114,611	May 19, 1992
De Cupere	5,456,855	Oct. 10, 1995
	(\$ 102(e) date	Jun. 15, 1993)

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Panandiker et al. (Panandiker)	5,466,802	Nov. 14, 1995 (filed Nov. 10, 1993)
Willey et al. (Willey)	5,503,639	Apr. 2, 1996 (effective filing date Jun. 24, 1993)
Collier et al. (Collier) (Canadian patent)	1,000,628	Nov. 30, 1976

#### *THE REJECTIONS*

The claims stand rejected as follows: claims 11, 19 and 20 under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103 as obvious over Collier; claims 1-4, 12, 14-16, 18 and 21 under 35 U.S.C. § 103 as obvious over Collier in view of Panandiker;<sup>1</sup> claims 5-7, 9, 10, 23 and 25 under 35 U.S.C. § 103 as obvious over Collier in view of Panandiker and Van Kralingen; claims 8, 13 and 24 under 35 U.S.C. § 103 as obvious over Collier in view of Panandiker and Willey; and claims 17 and 22 under 35 U.S.C. § 103 as obvious over Collier in view of Panandiker and De Cupere.<sup>2</sup>

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<sup>1</sup> The examiner added claim 12 to this rejection in the answer (page 4) and withdrew it from the rejections under 35 U.S.C. §§ 102(b) and 103 over Collier (answer, page 2). The appellants note this change in the reply brief (page 1) but do not challenge it. Thus, the record does not indicate that the appellants have been prejudiced by the addition of claim 12 to the rejection under 35 U.S.C. § 103 over Collier in view of Panandiker. We therefore consider this rejection of claim 12 to be before us for decision.

<sup>2</sup> In the event of further prosecution, the examiner should consider making obviousness-type double patenting rejections over

OPINION

We reverse the rejection under 35 U.S.C. § 102(b) and affirm the rejections under 35 U.S.C. § 103.

The appellants state that some of the claims stand or fall separately (brief, pages 3-4). We address the separately argued claims to the extent justified by the appellants' arguments. Claims not separately argued stand or fall together. 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) (1997).

*Rejections of claims 11, 19 and 20 under  
35 U.S.C. §§ 102(b) and 103 over Collier*

The appellants state that claims 11 and 19 stand or fall together and that claim 20 is independently patentable (brief, page 3). We therefore address only claim 20 and one of the other claims, i.e., claim 11.

Collier discloses a detergent composition which includes a builder which can be water soluble (page 31, lines 1-19; page 33, lines 1-4), an enzyme (page 6, line 14), and a bleach source which can be a substituted peroxybenzoic acid bleaching agent (page 34, lines 7-10; page 35, lines 2-3). The exemplified

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the claims of application nos. 08/722,035, 08/722,036 and 08/722,037.

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enzyme concentration in the wash liquor is 0.00012 wt% (page 36, lines 23-25; page 37, lines 16-19). The release of the builder is not disclosed as being delayed. The release of the enzyme takes place with or immediately after the release of a pH control agent which desirably is released from 0.5 to 5 minutes, preferably 2 to 5 minutes, after the detergent composition has been added to the wash solution (page 7, lines 8-20; page 35, line 25 - page 36, line 5). The release of the bleach takes place subsequent to the release of the enzyme (page 36, lines 6-7).

The examiner argues that the method recited in claims 11 and 19 and the composition recited in claim 20 are suggested by Collier (answer, page 8), but provides no argument regarding anticipation by Collier of the subject matter of these claims. We therefore reverse the rejection under 35 U.S.C. § 102(b) of claims 11, 19 and 20. See *Scripps Clinic & Research Found. v. Genentech Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

As for the rejection under 35 U.S.C. § 103, Collier's non-delayed release of the water-soluble builder falls within the scope of the appellants' claims 11 and 20, and Collier's range of times for the release of the enzyme and the bleach overlap the

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ranges recited in these claims. Use of release times within the overlapping ranges would have been *prima facie* obvious to one of ordinary skill in the art. See *In re Malagari*, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (CCPA 1974). Hence, the method recited in the appellants' claim 11 and the composition recited in the appellants' claim 20 would have been *prima facie* obvious to one of ordinary skill in the art over Collier.

The appellants argue that there is no teaching or suggestion in Collier as to the level of enzyme in the wash liquor (brief, page 6). In Collier's example I, the enzyme is 0.00012 wt% of the wash liquor (page 36, lines 23-25; page 37, lines 16-19), which falls within the range recited in the appellants' claim 11.

The appellants argue that there is no suggestion in Collier of a peroxyacid bleach release time (brief, page 7). In Collier's only example in which the composition contains a bleach, the appellants argue, the bleach is an inorganic compound, sodium perborate, and its release is not delayed (brief, pages 7-8). Collier, however, is not limited to its examples. See *Malagari*, 499 F.2d at 1303, 182 USPQ at 553. 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

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(CCPA 1966). Collier would have fairly suggested, to one of ordinary skill in the art, using his bleach release times for any of the disclosed bleaches, including the organic peroxyacid bleach.

For the above reasons, the appellants' arguments are not effective for rebutting the *prima facie* case of obviousness of the subject matter of claims 11 and 20 over Collier. Consequently, we affirm the rejection of claims 11, 19 and 20 under 35 U.S.C. § 103 over Collier.

*Rejection of claims 1-4, 12, 14-16, 18 and 21 under  
35 U.S.C. § 103 over Collier in view of Panandiker*

The appellants state that claims 3, 4 and 21 stand or fall separately (brief, page 4). The appellants, however, present a substantive argument only as to the separate patentability of claim 3. We therefore limit our discussion to claim 3 and one of the other claims, i.e., claim 1.

The appellants' claim 1 requires a water-soluble builder and an enzyme having recited release characteristics, and a polymeric dye transfer inhibiting agent. The water-soluble builder and enzyme are disclosed by Collier, and the recited release characteristics would have been fairly suggested to one of

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ordinary skill in the art by Collier for the reasons set forth above regarding the rejection of claims 11, 19 and 20.

Collier does not disclose a polymeric dye transfer inhibiting agent. However, the teaching by Panandiker that a polymeric dye transfer inhibiting agent is useful in a laundry detergent composition to inhibit dye transfer between laundered fabrics (col. 1, lines 49-53; col. 2, lines 3-7) would have fairly suggested, to one of ordinary skill in the art, including such an agent in Collier's laundry detergent composition (page 13, lines 27-29) to inhibit dye transfer.

The appellants argue that Panandiker does not teach or suggest either a bleaching agent and its release time as recited in claim 3, or delayed release of an enzyme (brief, pages 9-11). As discussed above, the limitations in the appellants' claims regarding the enzyme, the bleaching agent and their release times would have been fairly suggested to one of ordinary skill in the art by Collier. Accordingly, we affirm the rejection of claims 1-4, 12, 14-16, 18 and 21.

*Rejection of claims 5-7, 9, 10, 23 and 25  
under 35 U.S.C. § 103 over Collier in view of  
Panandiker and Van Kralingen*

The appellants state that claims 5-7, 9, 10, 23 and 25 stand or fall together (brief, page 4). Hence, we limit our discussion

to one claim in this group, i.e., claim 5, which depends from claim 3 and requires that the peroxyacid bleaching system includes a hydrogen peroxide source and a peroxyacid bleach precursor compound.

Van Kralingen discloses a bleaching agent selected from hydrogen peroxide, hydrogen peroxide-liberating compounds, peroxyacids and their salts, and peroxyacid bleach precursors and mixtures thereof (col. 5, lines 8-12). Thus, Van Kralingen would have fairly suggested, to one of ordinary skill in the art, use of a hydrogen peroxide source in combination with a peroxyacid bleach precursor compound. Disclosures by Van Kralingen that the bleaching agent is effective on a wide range of stains and is effective over a wide pH range (col. 5, lines 1-3 and 39-42) would have fairly suggested, to one of ordinary skill in the art, using this bleaching agent in Collier's composition to obtain these benefits.

The appellants argue that Van Kralingen does not disclose the peroxyacid bleach release time recited in claim 3 (brief, page 12). This release time, however, would have been fairly suggested to one of ordinary skill in the art by Collier as discussed above with respect to the rejection of that claim. We therefore affirm the rejection of claims 5-7, 9, 10, 23 and 25.

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*Rejection of claims 8, 13 and 24 under 35 U.S.C. § 103  
over Collier in view of Panandiker and Willey*

The appellants state that claims 8, 13 and 24 stand or fall together (brief, page 4). We therefore limit our discussion to one claim in this group, i.e., claim 8, which depends from claim 5 and recites that the peroxyacid bleach precursor is selected from a recited group of compounds.

Willey discloses acyl verolactams which fall within the scope of the N-acylated lactam bleach precursors recited in the appellants' claim 8, and teaches that they have the advantages of 1) forming peroxyacids upon perhydrolysis without the production of oily, harmful diacylperoxides, thereby providing good cleaning performance without damaging natural rubber parts and articles, and 2) being effective at low concentrations and at temperatures below 60°C (col. 1, line 59 - col. 2, line 8; col. 2, lines 22-38). This teaching would have fairly suggested, to one of ordinary skill in the art, use of Willey's bleaching system in Collier's detergent to obtain these benefits.

The appellants argue that Willey does not suggest the delayed release characteristic of the peroxyacid bleach source as required by claim 5 (brief, page 14). This release characteristic, however, would have been fairly suggested to one

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of ordinary skill in the art by Collier for the reasons given above regarding the rejection of that claim.

For the above reasons we affirm the rejection of claims 8, 13 and 24.

*Rejection of claims 17 and 22 under 35 U.S.C. § 103  
over Collier in view of Panandiker and De Cupere*

The appellants state that claims 17 and 22 are independently patentable (brief, page 4). We therefore address both of these claims.

The appellants' claim 17, which depends from claim 1, and claim 22, which depends from claim 20, require that the detergent composition contains 0.05 to 10 wt% of a granular suds suppressor comprising polydimethylsiloxane, silica and starch. De Cupere teaches that excessive sudsing interferes negatively with the action of a wash liquor on fabrics, and that a combination of a silicone antifoam compound, starch and silica provides a stable, free-flowing suds suppressor for detergent compositions in powder form (col. 1, lines 17-19 and 48-52; col. 2, lines 20-22). This teaching would have fairly suggested, to one of ordinary skill in the art, using De Cupere's suds suppressor in Collier's detergent composition, which can be in powder form (page 6, lines 14-16), to avoid the negative effect of excessive sudsing.

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The appellants argue that De Cupere does not disclose the delayed enzyme release required by claim 1 and the delayed organic peroxyacid bleach precursor release required by claim 20 (brief, pages 16-17). These release characteristics would have been fairly suggested to one of ordinary skill in the art by Collier as discussed above. Accordingly, we affirm the rejection of claims 17 and 22.

*DECISION*

The rejection of claims 11, 19 and 20 under 35 U.S.C. § 102(b) over Collier is reversed. The rejections under 35 U.S.C. § 103 of claims 11, 19 and 20 over Collier, claims 1-4, 12, 14-16, 18 and 21 over Collier in view of Panandiker, claims 5-7, 9, 10, 23 and 25 over Collier in view of Panandiker and Van Kralingen, claims 8, 13 and 24 over Collier in view of Panandiker and Willey, and claims 17 and 22 over Collier in view of Panandiker and De Cupere, are 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*

CHARLES F. WARREN  
Administrative Patent Judge

TERRY J. OWENS  
Administrative Patent Judge

THOMAS A. WALTZ  
Administrative Patent Judge

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