

The opinion in support of the decision being entered today is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte ERIC S. **ABRUTYN**,  
LOUIS SCARFO and RICHARD CHROMECEK

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Appeal No. 2006-1873<sup>1</sup>  
Reissue Application No. 08/058,163<sup>2</sup>

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ON BRIEF

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Before: CAROFF, SPIEGEL and NAGUMO, Administrative Patent Judges.  
SPIEGEL, Administrative Patent Judge.

**DECISION ON APPEAL**

**I. Introduction**

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-19, which are all of the claims pending in this reissue application. The claims on appeal are directed to solid compositions comprising a pheromone entrapped within a cross-linked polymer lattice. We enter a new ground of rejection pursuant to 37 CFR § 41.50(b) which is dispositive of all the claims on appeal.

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<sup>1</sup> The reissue application on appeal was received by the Board on 15 March 2006.

<sup>2</sup> The reissue application was filed 4 May 1993. The real party-in-interest is Dow Corning Corporation.

## II. Findings of Fact

The following findings of fact are supported by a preponderance of the evidence of record.

1. Application 08/058,163 (“the reissue application”) was filed on 4 May 1993 as a reissue application of U.S. Patent 4,855,127 (“the original patent”), which issued 8 August 1989.
2. The reissue application was filed more than two years after the original patent was granted.
3. The original patent contained one independent claim and thirteen dependent claims.
4. Originally issued claim 1 read (emphasis added):

A solid pheromone entrapped composition comprising:  
from approximately 5% to approximately 95% by weight of a cross-linked hydrophobic comb-like polymer lattice;  
from approximately 95% to about 5% by weight of a **solid** pheromone;  
said monomers of said cross-linked polymer and said pheromone being polymerized in situ;  
said pheromone being dispersed uniformly throughout and entrapped within said polymer lattice.
5. Originally issued dependent claim 13 limited the pheromone of claim 1 to “cis-2-isopropylpentyl-1-methyl-cyclobutane-ethanol.”
6. Originally issued dependent claim 14 limited the pheromone of claim 1 to “1,1-dimethyl-chloro-2-methylcyclohexane-1-carboxylate [sic].”
7. Reissue claim 1 reads:

A solid pheromone entrapped composition comprising:

from approximately 5% to approximately 95% by weight of a cross-linked hydrophobic comb-like polymer lattice;  
from approximately 95% to about 5% by weight of a pheromone;  
said monomers of said cross-linked polymer and said pheromone being polymerized in situ;  
said pheromone being dispersed uniformly throughout and entrapped within said polymer lattice.

8. Thus, reissue claim 1 and claims dependent thereon enlarge the scope of the originally issued claims by deleting the requirement that the pheromone be a solid phase pheromone.
9. The reissue application also adds four new independent claims, i.e., claims 15 through 19.
10. Reissue claim 18 reads (emphasis added):

A solid pheromone entrapped composition comprising from approximately 5% to approximately 95% by weight of a cross-linked hydrophobic comb-like polymer lattice; from approximately 95% to about 5% by weight of a compound which is a water insoluble **liquid pheromone or synthetic attractant**; monomers of said cross-linked polymer and said compound being polymerized in situ; said compound being dispersed uniformly throughout and entrapped within said polymer lattice.

11. Reissue claim 18 enlarges the scope of the claims of the original patent both by reciting both a “liquid” pheromone and by adding “or synthetic attractant.”
12. Reissue claims 15 through 17 and 19 all recite a solid pheromone entrapped composition comprising from approximately 5% to approximately 95% by weight of a cross-linked hydrophobic comb-like polymer lattice and from approximately 95% to about 5% by weight of a pheromone compound, wherein the monomers of said cross-linked polymer and said pheromone compound are polymerized in situ and said compound is dispersed uniformly throughout and entrapped within

said polymer lattice.

13. Reissue claim 15 requires the pheromone compound to be “cis-2-isopropylpentyl-1-methyl-cyclobutane-ethanol” and, therefore, covers the same subject matter as dependent reissue claim 13 written in independent form.
14. Reissue claim 16 requires the pheromone compound to be “1,1-dimethyl-chloro-2-methylcyclohexane-1-carboxylate” and, therefore, covers the same subject matter as dependent reissue claim 14 written in independent form.
15. Reissue claim 17 requires the pheromone compound to be “selected from the group consisting of 1,1-dimethyl-4-chloro-2-methylcyclohexane-1-carboxylate, 1,1-dimethyl-5-chloro-2-methylcyclohexane-1-carboxylate, cis-2-isopropylpentyl-1-methyl-cyclobutane-ethanol, medlure, siglure, butyl sorbate, cue-lure, and methyl eugenol.”
16. Reissue claim 19 requires the pheromone compound to be “selected from the group consisting of grandlure, trimedlure, methyl eugenol, and cuelure-malathion.”
17. None of reissue claims 15 through 17 or 19 explicitly state that the recited pheromone is a solid phase pheromone compound.
18. Reissue claims 17 and 19 enlarge the scope of the claims of the original patent by reciting Markush groups of pheromone compounds which are not limited to subsets of the pheromone compounds recited in the original patent claims.

Other findings of fact follow below.

### III. Discussion

#### A. Broadening reissues are prohibited after two years

19. Section 251 of Title 35 of the U.S. Code reads, in relevant part,

Whenever any patent is, through error without any deceptive intention, deemed wholly or partly inoperative or invalid, ... by reason of the patentee claiming more or less than he had a right to claim in the patent, the Director shall, on the surrender of the patent and the payment of the fee required by law, reissue the patent for the invention disclosed in the original patent, and in accordance with a new and amended application, for the unexpired part of the term of the original patent. No new matter shall be introduced into the application for reissue.

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No reissued patent shall be granted enlarging the scope of the claims of the original patent unless applied for within two years from the grant of the original patent.

#### 1. analysis

The instant reissue application was filed more than two years after the grant of the original patent. A claim is broadened if it is broader in any one respect even though it may be narrower in other respects. By removing the express requirement that the pheromone of the claimed composition be a solid pheromone, appellants have enlarged the scope of the claims of the original patent. In addition, reissue claim 18 enlarges the scope of the claims of the original patent by adding a “synthetic attractant” as an alternative to a “water insoluble liquid pheromone.” Furthermore, reissue claims 17 and 19 enlarge the scope of the original patent claims by reciting particular pheromones not previously recited. Thus, at least reissue claims 1-12 and 17-19 violate the two year period of limitation on applying for broadening reissues as set forth in § 251.

Original patent claims 13 and 14 limited the solid pheromone of the originally claimed composition to either cis-2-isopropylpentyl-1-methyl-cyclobutane-ethanol or 1,1-

dimethyl-chloro-2-methylcyclohexane-1-carboxylate, respectively. According to appellants, “if ‘trimedlure’ and ‘Grandlure’ are liquids, and if ‘trimedlure’ and ‘Grandlure’ are the same as the compounds recited in Claims 13 and 14, then it follows that the compounds in Claims 13 and 14 must also be liquids” (Brief, sentence bridging pp. 3-4). In other words, rewriting original claims 13 and 14 in independent form apparently would not violate the two year period of limitation on broadening reissue claims notwithstanding removal of the requirement that the pheromone of the claimed composition be a solid pheromone because the pheromone of the originally patented composition was not a solid pheromone. Independent reissue claims 15 and 16 are limited to the exact composition set forth in original claims 13 and 14 of the patent.

Therefore, as to reissue claims 13-16, the issues for consideration are whether the compounds recited therein are (a) trimedlure and grandlure and (b) necessarily liquids. Appellants contend that evidence has been filed with the reissue application showing that “grandlure” and “medlure” are liquids (Brief, p. 3). Specifically, US patent 3,954,968 (“the ‘968 patent”) is said to show that “grandlure” is an oil (i.e., liquid) and page 1180 from Hawley’s Condensed Chemical Dictionary, 12th ed, Van Nostrand Reinhold Company, 1993 (“Hawley”), is said to show that “medlure” is a liquid (Reply Under 37 CFR § 1.111 filed 1 June 2004 (Paper 8), pp. 1-2, filed in response to the Office Action mailed 16 May 1994 (Paper 7)).

20. The pheromone recited in reissue claims 13 and 15 is cis-2-isopropylpentyl-1-methyl-cyclobutane-ethanol.
21. “Grandlure” is described in the original and reissue specifications as “cis-2-

isopropenyl-1-methyl-cyclobutane-ethanol (30% Racemic)” (Table II, bridging cc. 13-14).

22. Appellants rely on the description of grandlure as an oil in the ‘968 patent (c. 2, ll. 33-35) to show that grandlure is a liquid.

Thus, the original and reissue specifications describe grandlure as a composition comprising 30% racemic cis-2-isopropenyl-1-methyl-cyclobutane-ethanol, not as synonymous with cis-2-isopropenyl-1-methyl-cyclobutane-ethanol.<sup>3</sup> Nonetheless, the description of grandlure in the ‘968 patent is sufficient to establish that the cis-2-isopropenyl-1-methyl-cyclobutane-ethanol component of grandlure is also an oil and that the pheromone recited in original patent claim 13 was not a solid pheromone.

23. The original and reissue specifications describe “trimedlure” as an alternative name for “1,1-dimethyl-4(and 5)-chloro-2-methylcyclohexane-1-carboxylate” (c. 10, ll. 4-5).

24. Appellants rely on the description of the properties of trimedlure as a “[l]iquid; bp 90-92C (0.6 mm Hg), soluble in most organic solvents, insoluble in water” in Hawley (p. 1180) to show that trimedlure is a liquid.

25. According to Hawley, “trimedlure” is the generic name for tert-butyl 4(or 5)-

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<sup>3</sup> We have come across evidence that grandlure is a four component mixture (see e.g., U.S. Patent 5,900,234, c. 1, 39 (copy enclosed)), i.e., (I) cis-2-isopropenyl-1-methylcyclobutane ethanol, (II) Z-3,3-dimethyl-1-cyclohexane ethanol, (III) Z-3,3-dimethyl-1-cyclohexane acetaldehyde, and (IV) E-3,3-dimethyl-1-cyclohexane acetaldehyde (see e.g., U.S. Patent 5,759,561, c. 8, ll. 20-27 (copy enclosed)).

chloro-2-methylcyclohexanecarboxylate (*id.*).

26. However, the pheromone recited in reissue claims 14 and 16 is “1,1-dimethyl-chloro-2-methylcyclohexane-1-carboxylate.”

27. “Tert tert-butyl 4(or 5)-chloro-2-methylcyclohexanecarboxylate” is not the same compound as “1,1-dimethyl-chloro-2-methylcyclohexane-1-carboxylate.”

Thus, appellants have not provided evidence sufficient to establish that the compound recited in reissue claims 14 and 16 is necessarily a liquid.

On the present record,<sup>4</sup> we hold that reissue claims 1-12, 14 and 16-19 violate the two year period of limitation on applying for broadening reissues as set forth in § 251. Since appellants are not entitled to improperly broadening reissue claim 1, appellants are not entitled to dependent reissue claims 13 or 14. Since the evidence of record is insufficient to establish that the compound covered by reissue claims 14 and 16 is necessarily a liquid pheromone, appellants are not entitled to a patent on reissue claims 14 or 16. While reissue claim 15 appears not to violate the two year limitation on applying for broadening reissues, we take no position on whether it is patentable over the prior art of record, especially in view of the inadequacy of the record as explained in the miscellaneous remarks below.

## **2. new ground of rejection entered by the Board**

Consequently, claims 1-14 and 16-19 are rejected under 35 U.S.C. § 251 as being broadened in a reissue application filed outside the two year statutory period.

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<sup>4</sup> The record before us is a reconstructed file of reissue application 08/058,163. Although copies of the '968 patent and Hawley were not present in the reconstructed file, we were able to locate copies of these references as discussed in Paper 8. Appellants presumably have copies of these references in their

**B. Miscellaneous**

28. This appeal was filed to present three issues for consideration by the Board, i.e.,

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files. If not, copies of the '968 patent and/or Hawley will be supplied to appellants upon request.

whether claims 1-19 were properly rejected (1) under 35 U.S.C. § 112, first and second paragraphs, (2) under 35 U.S.C. § 251 as based on a defective reissue oath and (3) under 35 U.S.C. § 103 as being obvious over British Patent GB 1336495 (“the Ciba-Geigy reference”) (Brief,<sup>5</sup> p. 2; Answer,<sup>6</sup> p. 2).

The rejections on which these issues are based are vacated in view of the new ground of rejection under § 251 entered by the Board. However, in the event of further prosecution, the appellants and the examiner should take action consistent with the following comments.

First, the examiner should avoid setting forth the reasons in support of her rejection by reference to multiple prior office actions because the examiner’s position vis-a-vis intervening amendments and/or rebuttal arguments submitted by the appellants becomes unclear. For example, in regard to the rejection of claims 1-19 under 35 U.S.C. § 112, page 2 of the Answer incorporates the examiner’s reasoning “set forth in the prior Office action paper number 07”, while page 4 of Office action paper number 7 (mailed 16 May 1994) refers to “the reasons, of record set forth in paragraphs 4 and 5, of the previous Office action” mailed 12 November 1993 (Paper 5).

Second, the examiner should take a step back and reconsider the patentability of

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<sup>5</sup> Paper 11, filed 19 September 1994.

<sup>6</sup> Paper 12, mailed 6 January 1995.

each of claims 1-19 under § 112, first and second paragraphs, in light of appellants' claims and specification. A claim may be definite under § 112, second paragraph, but unpatentable under § 112, first paragraph, if the full scope of the claim is not supported. Here, for example, the examiner contends that the "claims are indefinite and confusing, since the claims recite solid pheromone" (see Paper 5, p. 2, ¶ 5). However, none of the claims on appeal recite the phrase "solid pheromone." Whether or not appellants' specification adequately describes and enables claimed compositions comprising a "generic" pheromone versus a "liquid" pheromone or a "solid" pheromone, for example, is an issue under the first paragraph of § 112. Breadth is not indefiniteness. *In re Conley*, 490 F.2d 972, 976, 180 USPQ 454, 456 (CCPA 1974).

Third, the examiner should evaluate the sufficiency of appellants' reissue declaration under the current rules. 37 CFR § 1.175. [62 FR 53196, Oct. 10, 1997, as amended at 69 FR 56544, Sept. 21, 2004.] A further discussion of reviewing reissue oaths may be found in section 1444 of the MANUAL OF PATENT EXAMINING PROCEDURES ("MPEP"), eighth edition, rev. 4, October 2005. Note that rules in force at the time of decision should be enforced unless the appellant would be prejudiced by its reliance on the former rules. *Singh v. Brake*, 222 F.2d 1363, 1371, 55 USPQ2d 1673, 1679 (Fed. Cir. 2000).

Fourth, neither the appellants nor the examiner have sufficiently developed the issue of the patentability of claims 1-19 under § 103 over the Ciba-Geigy reference. The principal problem is that the positions of the appellants and the examiner regarding the patentability of the claimed invention over the Ciba-Geigy reference have not been

clearly and fully explained. For example, one might guess that the position of the examiner is that the reissue claims are product-by-process claims and that the product produced by the process described in the Ciba-Geigy reference is the same or substantially the same as the claimed product. However, the examiner has not clearly explained her position and we will not guess what it is. In a similar vein, it appears that appellants are arguing that in situ polymerization produces a different polymeric matrix from that described in the Ciba-Geigy reference and/or that the physical state of the pheromone in the claimed composition is patentably different from the physical state of the pheromone in the Ciba-Geigy composition. Again, we will not guess what appellants' position is.

Fifth, the Office action mailed 16 May 1994 (Paper 7, pp. 2-4) suggests that the original patent claims were deemed to be allowable over the Ciba-Geigy reference once the term "solid" was introduced before the term "pheromone." Therefore, the examiner should take a step back and assess whether claims which have removed the express requirement that the pheromone of the claimed composition be a solid pheromone are patentable over the Ciba-Geigy reference. The examiner should also consider whether or not appellants are estopped from claiming compositions comprising liquid pheromone.

Finally, according to the Ciba-Geigy reference, among the "best known processes for making compositions useful as permanent diffusers in which an active liquid material is distributed in a homogeneous fashion in a polymeric matrix" (p. 1, ll. 61-65) is a process wherein

d) The active liquid material is incorporated into a liquid monomer or semi-polymer. The polymerization takes place or is concluded by heating after the addition of a catalyst. A solid homogeneous composition is finally obtained. The process is described, for example, in French Patents 1176992, 1326385 and 1404681. [P. 2, ll. 22-29.]

We leave it to the examiner in the first instance to determine whether this “French” process is relevant prior art vis-a-vis appellants’ claimed invention.

### **III. Conclusion**

Claims 1-14 and 16-19 are rejected under 35 U.S.C. § 251 as being broadened in a reissue application filed outside the two year statutory period. The decision of the examiner to reject claims 1-19 (a) under 35 U.S.C. § 112, first and second paragraphs, (ii) under 35 U.S.C. § 251 as based on a defective reissue oath and (iii) under 35 U.S.C. § 103 as being obvious over British Patent GB 1336495 is vacated as moot in view of the new ground of rejection under 35 U.S.C. § 251.

This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b). 37 CFR § 41.50(b) provides that, “[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review.”

37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

**VACATED and REMANDED under 37 CFR § 41.50(b)**

_____ )	
MARC L. CAROFF )	
Administrative Patent Judge )	
_____ )	BOARD OF PATENT
CAROL A. SPIEGEL )	APPEALS AND
Administrative Patent Judge )	INTERFERENCES
_____ )	
MARK NAGUMO )	
Administrative Patent Judge )	

Enc.: US patents 5,759,561 and 5,900,234.

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