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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte KLAUS SCHELBERGER, MARIA SCHERER, KARL EICKEN,
MANFRED HAMPEL, EBERHARD AMMERMANN, GISELA LORENZ,
and SIEGFRIED STRATHMANN

Appeal 2012-001164
Application 11/322,211
Technology Center 1600

Before DEMETRA J. MILLS, ERIC GRIMES, and
ULRIKE W. JENKS, *Administrative Patent Judges*.

JENKS, *Administrative Patent Judge*

DECISION ON APPEAL

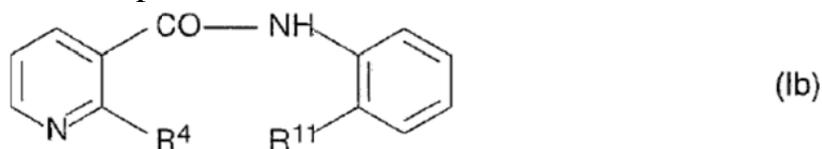
This is an appeal under 35 U.S.C. § 134 involving claims directed to a fungicidal composition. The Examiner has rejected the claims for obviousness. We have jurisdiction under 35 U.S.C. § 6(b). We reverse.

STATEMENT OF THE CASE

“The [fungicidal] mixtures according to the invention have synergistic action and are therefore particularly suitable for controlling harmful fungi and in particular downy mildew fungi in vegetables and grapevines.” (Spec. 4: 5-8.)

Claims 1, 8-12, and 15-20 are on appeal, and can be found in the Claims Appendix of the Appeal Brief (App. Br. 18-19). Claim 1 is the sole independent claim and is representative of the claims on appeal, and reads as follows:

1. A fungicidal composition comprising as active components
 - a) an amide compound of the formula Ib

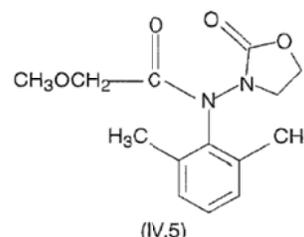
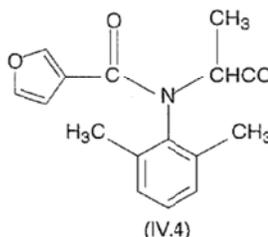
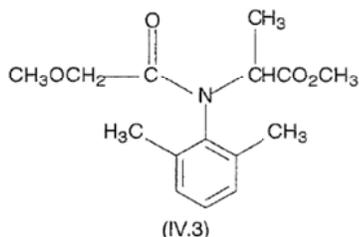
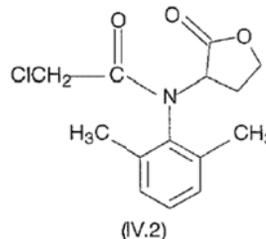
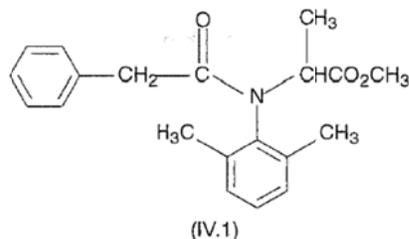


in which

R⁴ is halogen and

R¹¹ is phenyl which is substituted by halogen.

d) at least one active ingredient of formulae IV.1 to IV.5,



wherein the active components are present in synergistically effective amounts.

The following ground¹ of rejection is before us for review:

Claims 1, 8-12, and 15-20 are rejected under 35 U.S.C. §103(a) as being unpatentable over Eicken² in view of Latorse.³

ISSUE

The Examiner takes the position that:

[T]he prior art clearly teaches the instant individual compounds as fungicides. This teaching of the same utility in the art for the

¹ The Examiner has withdrawn the rejection of claims 1, 8-12, and 15-20 under 35 U.S.C. §112, first paragraph (Ans. 3).

² Eicken et al., U.S. Patent No. 6,143,745, issued Nov. 7, 2000

³ Latorse, WO 96/030044, published Feb. 8, 1996; in this opinion all references to Latrose will cite the English language equivalent U.S. Patent No. 5,906,986, issued May 25, 1999.

individual compounds clearly makes it obvious to combine the instant individual compounds with the expectation that the combination would produce at least an additive effect. So, the real invention lies in synergism for the instantly claimed mixtures for which the Applicants provide no synergistic showing for the claimed combinations outside of the combination of formula Ib and metalaxyl - compound IV.3 only in a ratio of 1:1.

(Ans. 6-7.)

Appellants assert that “*Eicken et al.* fail to teach or reasonably suggest that a synergistic co-action occurs when the amide compound (I) or (Ib) is combined with a fungicide different from and unrelated to, pyridaben, fenproximate or tebufenpyrad.” (App. Br. 12.) Additionally, “*Latorse* [also] fails to teach or reasonably suggest that a synergistic co-action occurs when any[]one of the compounds (B), or specifically cymoxanil, metalaxyl, benalaxyl or oxadixy[1], is combined with a fungicide different from, and unrelated to, the imidazolone compound (A).” (App. Br. 13.) “[A]ctive ingredients (IV.1) to (IV.5) are functional equivalents in that they share a common mode of action, *i.e.*, they inhibit RNA polymerization.” (App. Br. 14.)

Appellants assert that:

When taken together, the teachings of *Eicken et al.* and *Latorse* merely corroborate that elements of appellants' invention were individually known in the art at the pertinent time. The combined teachings, however, fall short from suggesting or even implying the subject matter of appellants' claim, *i.e.*, a composition in which the amide compound (Ib)

and at least one of the active ingredients (IV.1) to (IV.5) are combined in synergistically effective amounts.

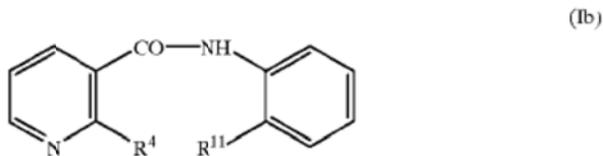
(App. Br. 13.)

The issue in this case is whether the examples in the Specification and declaration show unobvious results sufficient to overcome the prima facie obviousness rejection.

FINDINGS OF FACT

The following findings of fact (“FF”) are supported by a preponderance of the evidence of record.

1. Eicken disclosed an amide compound for controlling harmful fungi comprising formula:



where R^4 is halogen and R^{11} is phenyl which is substituted by halogen. (Eicken col. 8, ll. 20-23.)

2. Latorse disclosed a fungicidal composition comprising “amides such as cymoxanil, metalaxyl, benalaxyl and oxadixyl.” (Latorse, col. 2, ll. 5-6.)

3. The Specification disclosed that compounds of group (d) recited in claim 1 were known in the art.

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The compound IV.1 is commercially available under the common name benalaxyl or the trade name GalbenTM.

The compound IV.2 is commercially available under the common name ofurace or the trade name CeltanTM P in the form of mixtures with cymoxanil and folpet.

The compound IV.3 is commercially available under the common name metalaxyl or the trade name RidomilTM.

The compound IV.4 is commercially available under the common name furalaxyl or the trade name FongarideTM.

The compound of the formula IV.5 is commercially available under the common name oxadixyl and under the trade name SandofanTMC in mixtures with copper salts.

(Spec. 15, ll. 28-45.)

4. The Specification disclosed synergistic co-action with a combination of compound I.1 (a compound encompassed by formula Ib) and compound IV.3 showing an observed efficacy of 20 with a calculated efficacy of 0, at a 1:1 weight ratio (Substitute Spec., filed Dec. 8, 2008, at 40).

5. The declaration of Ammermann disclosed synergistic co-action with a mixture of compound I.2 (a compound encompassed by formula Ib)

and compound IV.3 showing observed efficacy of 30 with a calculated efficacy of 0, at a 1:1 weight ratio (Ammermann⁴ 4).

PRINCIPLES OF LAW

“In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness. Only if that burden is met, does the burden of coming forward with evidence or argument shift to the applicant.” *In re Rijckaert*, 9 F.3d 1531, 1532 (Fed. Cir. 1993).

“It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d 846, 850 (CCPA 1980)(citations omitted)

ANALYSIS

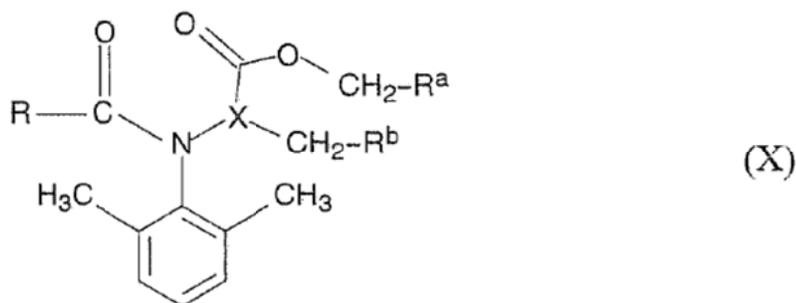
We agree with the Examiner’s position that it is *prima facie* obvious to combine the compounds found in Eichen and Latorse (FFs 1, 2), because each is shown to control fungal growth, and therefore, it would have been obvious to arrive at a third composition that also controls fungal growth

⁴ Eberhard Ammermann, Declaration under 37 C.F.R. § 1.132, dated Nov. 15, 2001.

(Ans. 5). “[T]he idea of combining them flows logically from their having been individually taught in the prior art.” *In re Kerkhoven*, 626 F.2d at 850.

We now look to the unexpected results proffered by Appellants in order to overcome the prima facie rejection. The Examiner takes the position that a “single unexpected showing for one species does not allow the inventors to extend their invention to the claimed range of species combinations; wherein the species differ vastly in structure.” (Ans. 6.) The Examiner also asserts that “[c]ompound IV.3 is not chemcially [sic] and physically equivalent to compounds IV.1, IV.2, IV.4 and IV.5.” (Ans. 6.)

We find that the Appellants have the better position. Appellants provided two experiments (FFs 4, 5) in order to show unexpected results for the claimed genus of five compounds in group (d), both experiments showed increased fungicidal activity with the combination versus the compounds individually. The two experiments varied in the use of compound (Ib) while using the same compound from group (d), specifically, metalaxyl (IV.3). Additionally, Appellants argue that the “active ingredients (IV.1) to (IV.5) are functional equivalents in that they share a common mode of action, i.e., they inhibit RNA polymerization.” (App. Br. 14, see also 9.) Appellants further argue that compounds IV.1- IV.5 also share a common physical structure represented in formula X:



(App. Br. 9) “The representation by formula (X) shows that the structural variation within active ingredients (IV.1) to (IV.5) essentially resides in a variation of the group represented by R.” (App. Br. 9)

We recognize that a showing of unexpected results with a limited number of samples does not necessarily provide an adequate basis for concluding that the great number of compositions contained in a generic claim would behave in the same way. *In re Kollman*, 595 F.2d 48, 55 (CCPA 1979). The facts in the present claims and Specification differ from the facts in *Kollman*. Here, the number of compounds claimed in group (d) is small, comprising only five members; all compounds included in group (d) are known fungicides (FF3); all compounds of group (d) share the same mode of action, in that they inhibit RNA polymerization (App. Br. 9); and all compounds of group (d) share a common physical structure (X) reproduced above. Based on this evidence, we find that there is adequate support to conclude that the other four members of group (d) would behave similarly to metalaxyl (IV.3).

“The Examiner agrees that Appellants have shown unpredictable results for a combination of compound of formula Ib with metalaxyl (IV.3) in a 1:1 ratio. However, the Examiner maintains that Appellants do not provide unexpected (synergistic) data for compound of formula Ib with the other claimed d compounds (e.g. Benalaxyl - compound IV.1 or oxadixyl - compound IV.5) at any ratio.” (Ans. 8; see also Final Office Action 7.) “If an applicant demonstrates that an embodiment has an unexpected result and provides an adequate basis to support the conclusion that other embodiments falling within the claim will behave in the same manner, this will generally establish that the evidence is commensurate with scope of the claims.” *In re Huai-Hung Kao* 639 F.3d 1057, 1068 (2011) (internal citations omitted). As discussed above, Appellants have shown that the members of group (d) are known fungicides (FF3), all members share the same mode of action, in that they inhibit RNA polymerization (App. Br. 9), and they share a common structure (X) reproduced above. We find that the Examiner has not provided a reasonable explanation why one of ordinary skill in the art would believe that the other four compounds of group (d) would behave differently from the exemplified compound, metalaxyl (IV.3).

We conclude that the preponderance of the evidence of record does not support the Examiner’s conclusion that the combination of Eicken in view of Latorse renders obvious the synergistic fungicidal composition of claim 1. We thus reverse the rejection of claim 1 under 35 U.S.C. § 103(a) as being obvious, as well as dependent claims 8-12 and 15-20.

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SUMMARY

We reverse the rejection of claims 1, 8-12, and 15-20 under 35 U.S.C. §103(a) as being unpatentable over Eicken in view of Latorse.

REVERSED

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