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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BAYER CROPSCIENCE, LP
Appellant

Appeal 2011-005039
Reexamination Control 90/008,317
Patent 5,700,460
Technology Center 3900

Before RICHARD E. SCHAFER, RICHARD M. LEBOVITZ, and JEFFREY B. ROBERTSON, *Administrative Patent Judges*.

LEBOVITZ, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on the appeal by the Patent Owner of U.S. Patent No. 5,700,460 from the Patent Examiner's rejections in an *ex parte* reexamination proceeding. The Board's jurisdiction in this appeal is based on 35 U.S.C. §§ 6(b), 134, and 306. We affirm the Examiner.

STATEMENT OF THE CASE

U.S. Patent No. 5,700,460 (hereinafter "the '460 patent") issued December 23, 1997. A Request for *ex Parte* reexamination of the claims of the '460 patent was filed by Third-Party Requester ("Requester") pursuant to 35 U.S.C. §§ 302-307 and 37 C.F.R. § 1.510. In a final office action dated June 15, 2010, the Examiner indicated that claims 4-6, 8, 10-14, 17-19, 21, 23, 28-30, and 32-36 were patentable, but maintained the rejections of claims 1, 3, 7, 9, 15, 20, 22, and 24-27 (Ans. 2, mailed Nov. 22, 2010). The Patent Owner ("Appellant") appeals the rejection of these claims as follows:

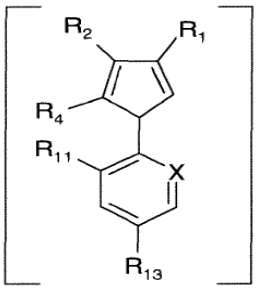
Claims 1, 3, 7, 9, 15, 20, 22, and 24-26 under 35 U.S.C. § 102(b) as anticipated by Hatton[1] (Ans. 4); and

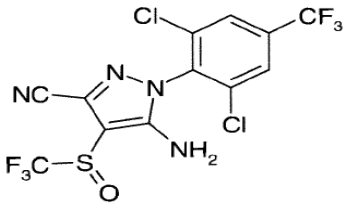
Claims 1, 15, 26, and 27 under 35 U.S.C. § 102(b) as anticipated by Colliot[2] (*id.* at 11).

[1] U.S. Patent No. 5,232,940 issued Aug. 3, 1993.
[2] F. Colliot et al., *Fipronil: A New Soil and Foliar Broad Spectrum Insecticide*, in BRIGHTON CROP PROTECTION CONFERENCE, PESTS AND DISEASES 29-34 (1992).

Claims 1 and 15 are representative and read as follows (with underlining and bracketing showing additions and deletions relative to the original patent claims):

> 1. A method for attracting insects, said method comprising offering to said insects for ingestion an effective attractant amount of a compound having the formula:

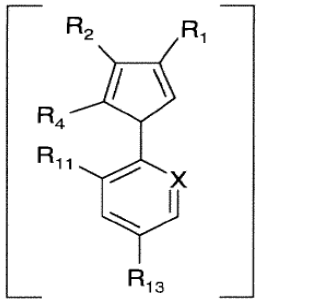


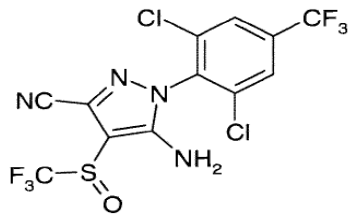


> [wherein R_l is CN or methyl;
>
> R_2 is $–S(O)_nR_3$;
> R_3 is alkyl or haloalkyl;
> R_4 is hydrogen, halogen, $–NR_5R_6$, $–S(O)_mR_7$, alkyl, haloalkyl, $–OR_8$ or $–N=C(R_9)(R_{10})$;
> each of R_5 and R_6, which are the same or different, is hydrogen, alkyl, haloalkyl, –C(O)alkyl or $–S(O)_rCF_3$; or R_5 and R_6 together form a divalent lower alkylene radical which is optionally interrupted by one or more heteroatoms selected from O, S and N;
> R_7 is alkyl or haloalkyl;
> R_8 is alkyl, haloalkyl or hydrogen;
> R_9 is hydrogen or alkyl;
> R_{10} is phenyl or heteroaryl, each of which is unsubstituted or is substituted with one or more substituents selected from the

group consisting of hydroxy, halogen, –O– alkyl, –-S–alkyl, cyano and alkyl;
each of R_{11} and R_{12} which are the same or different, is halogen or hydrogen;
R_{13} is halogen, haloalkyl, haloalkoxy, $–S(O)_qCF_3$ or $–SF_5$;
each of m, n, q and r, which are the same or different, is 0, 1 or 2; and X is nitrogen or $C–R_{12}$;
provided that when R_1 is methyl, R_3 is haloalkyl, R_4 is NH_2, R_{11} is Cl, R_{13} is CF_3, and X is N]
wherein the compound is 5-amino-3-cyano-l-(2,6-dichloro-4-trifluoromethyl)phenyl-4-trifluoromethylsulfinylpyrazole.

15. A method for attracting and killing insects comprising offering to said insects for ingestion a compound having the formula:





[wherein: R_l is CN or methyl;
R_2 is $S(O)_nR_3$;
R_3 is alkyl or haloallcyl;
R_4 is hydrogen, halogen, $–NR_5R_6$, $–S(O)_mR_7$, alkyl, haloalkyl, $–OR_8$ or $–N=C(R_9)(R_{10})$;

> each of R_5 and R_6, which are the same or different, is hydrogen, alkyl, hal alkyl, –C(O)alkyl or $–S(O)_rCF_3$; or R_5 and R_6 together form a divalent lower alkylene radical which is optionally interrupted by one or more heteroatoms selected from O, S and N;
> R_7 is alkyl or halo alkyl;
> R_8 is alkyl, haloalkyl or hydrogen;
> R_9 is hydrogen or alkyl;
> R_{l0} is phenyl or heteroaryl, each of which is unsubstituted or is substituted with one or more substituents selected from the group consisting of hydroxy, halogen, –O–alkyl, –S–alkyl, cyano and alkyl;
> each of R_{11} and R_{12} which are the same or different, is halogen or hydrogen;
> R_{13} is halogen, halo alkyl, haloalkoxy, $–S(0)_qCF_3$ or $–SF_5$;
> each of m, n, q and r, which are the same or different, is 0, 1 or 2; and X is nitrogen or $C–R_{I2}$;
> provided that when R_1 is methyl, R_3 is haloalkyl, R_4 is NH_2, R_{11} is C_1, R_{13} is CF_3, and X is N;]
> wherein the compound is 5-amino-3-cyano-l-(2,6-dichloro-4-trifluoromethyl)phenyl-4-trifluoromethylsulfinylpyrazole; and said compound [of formula (I)] is offered in an amount which is effective both as an attractant and as an insecticide.

(App. Br. 18, 19, 22, 23.)

Oral arguments were heard on April 19, 2011. A written transcript of the oral arguments will be entered into the electronic record in due course.

FINDINGS OF FACT ("FF")

Hatton

1. Hatton describes N-phenylpyrazole derivatives of general formula I and their use to control arthropod, plant nematode, helminth, and protozoan pests (col. 1, ll. 19-22; col. 15, ll. 42-48).

2. Among a list of 236 specifically identified N-phenylpyrazole derivatives is 5-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethyl-phenyl)-4-trifluoromethylsulphinylpyrazole (col. 6, ll. 17-18; compound 52), also known as fipronil.

3. Hatton discloses that the N-phenylpyrazole compounds can be used to control Periplanta spp., Periplanta americana; Blatella spp., cockroaches, ants, etc. (col. 15, l. 56 to col. 17, l. 34, especially col. 15, l. 68 to col. 16, l. 1; col. 16, l. 23; col. 33, l. 55).

4. Hatton teaches that the compounds can be used "in the control of cockroaches, ants and termites and similar arthropod pests in infested domestic and industrial premises" (col. 16, ll. 23-25).

5. Hatton discloses that the compounds can be applied in various forms (col. 19, ll. 19-20), including as a solid or liquid to soil (col. 17, l. 65-66); in solid or liquid baits (col. 20, ll. 19-23); and in granules, pellets, briquettes, or capsules (col. 20, ll. 32-35).

6. Compositions comprising an N-phenylpyrazole compound of formula I can contain wetting, dispersing, and emulsifying agents (col. 20, ll. 24-26, 43-52, & 63-65; col. 21, ll. 7-12).

7. Hatton describes several examples in which a specific formula I compound is formulated as a water-soluble concentrate (col. 23, Example 1); as a wettable powder (col. 24, Example 3), as an emusifiable suspension (col. 24, Example 5), as water-dispersible granules (col. 24-25; Example 6), as a dusting powder (col. 25; Example 7), and as an edible bait comprising wheat flour and molasses (col. 25; Example 8).

8. Hatton teaches that the compounds of formula I "are of value in controlling pests which feed on parts of the plant remote from the point of application, e.g., leaf feeding insects are killed by the subject compounds applied to roots." (Col. 18, ll. 3-7.)

9. Hatton teaches that "[i]n addition the compounds may reduce attacks on the plant by means of antifeeding or repellant effects." (Col. 18, ll. 8-9.)

Colliot

10. Colliot teaches that the "insecticidal properties of fipronil were discovered . . . in 1987" (p. 29).

11. "Fipronil is a highly effective insecticide against both piercing-sucking and chewing insects, and can be effectively delivered via soil, foliar, bait, or seed treatment application." (*Id.*)

12. Colliot describes application of fipronil to the soil (p. 32).

DISCUSSION

It is undisputed that fipronil, the compound recited in all of the rejected claims, was a known insecticide (FF1, FF2, FF10, & F11). Appellant asserts to have discovered that fipronil is also an insect attractant, a compound which attracts insects from a distance (Appeal Brief ("App. Br.") 9, dated August 17, 2010). To reflect this discovery, Appellant claimed methods for "attracting insects" and "attracting and killing insects" comprising "offering" fipronil to said insects for ingestion (*id.* at 18, VIII. Claims Appendix; claims 1 & 15). Appellant asserts that the claimed

methods are patentable over the cited prior art publications[3] because the publications do not describe fipronil as an insect attractant nor use it as one. Thus, the issue in this proceeding is whether the claimed preamble of a "method for attracting" insects and the claimed step of "offering" fipronil to insects "for ingestion" distinguish the claims from the known uses of fipronil as an insecticide.

It is hornbook patent law that merely recognizing something that was not known before is insufficient to render an old process again patentable. *In re Cruciferous Sprout Litig.*, 301 F.3d 1343, 1351 (Fed. Cir. 2002). *See also In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Omeprazole Patent Litig*., 483 F.3d 1364, 1373 (Fed. Cir. 2007).

> [A] prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent to it. . . . Inherency is not necessarily coterminous with the knowledge of those of ordinary skill in the art. Artisans of ordinary skill may not recognize the inherent characteristics or functioning of the prior art.

MEHL/Biophile Int'l Corp. v. Milgraum, 192 F.3d 1362, 1365 (Fed. Cir. 1999).

In *MEHL*, the patentee claimed a "method of hair depilation" utilizing steps which had been described in a prior art publication. The prior art method did not perform the steps for the purpose of hair depilation, but it was determined that hair depilation would have been a necessary, albeit unrecognized and inherent, consequence of carrying out the steps. *Id*. at 1366. Although the claim preamble expressly required the method to be performed for the purpose of hair depilation, the court did not find it

[3] Hatton and Colliot.

necessary that the publication's authors "appreciate[d] the results" of their process to constitute an anticipation of the claimed process (*id*.). Thus, the purpose for which the method was accomplished was insufficient to distinguish it from the prior art.

Similarly, in *Perricone v. Medicis Pharm. Corp.*, 432 F.3d 1368, 1378-79 (Fed. Cir. 2005), a method claim preamble, which required "preventing sunburn damage to exposed skin surfaces," was found satisfied by a prior art process which applied the same composition as claimed to exposed skin surfaces, but for a different purpose. "[T]he new realization alone [that the old composition would prevent sunburn damage] does not render the old invention patentable." *Perricone* at 1377.

Claims 1 and 15 stand on the same ground. Both Hatton and Colliot describe providing fipronil to insects in the conventional forms in which insecticides are used. For example, Hatton described applying its N-phenylpyrazole compounds, of which fipronil is specifically identified, to soil in solid and liquid forms, and describes concentrates, powders, and granules (FF2, FF5, FF6, & FF7). Colliot also teaches various conventional applications, including applying fipronil to the soil (FF11 & FF12). While neither Hatton nor Colliot discloses that fipronil would attract insects when present in the soil or at other locations (FF8 & FF11), the attractant properties are inherent to fipronil and thus would necessarily occur. *See In re Papesch*, 315 F.2d 381, 391 (CCPA 1963) ("From the standpoint of patent law, a compound and all of its properties are inseparable; they are one and the same thing."). The fact that Appellant discovered that fipronil attracts insects does not distinguish the claimed method from the prior art

because once fipronil was applied to the soil, plant part, etc., it would attract insects, *regardless of whether the method was carried out for this purpose* or whether the attractant result was recognized. Mere appreciation of a necessary result of a known process does not impart patentability to that process.

The methods also comprise the step of "offering" fipronil to insects "for ingestion." We interpret this step to mean that fipronil is presented to the insects in such a way or form that it would be ingested by them. Appellant has not provided sufficient evidence that a narrower or different interpretation is warranted. Providing fipronil on soil or on plants, or to any other location described in the Hatton and Colliot publications (FF5, FF8, & FF11, FF12), would leave fipronil accessible to the insect for ingestion and thus meet the claimed requirement of offering fipronil for ingestion. Appellant has not articulated a difference between "offering" fipronil for ingestion, as recited in the claims, and applying fipronil to the soil or a plant in a solid or liquid form as taught by the cited Hatton and Colliot publications.

In sum, while the claimed purpose of attracting insects with fipronil was not described in either Hatton or Colliot, the latter publications describe the same compound, the same method steps, and therefore the result of attracting insects would have inherently been accomplished – anticipating the claimed subject matter.

Referring to Example 8 of Hatton, Appellant argues that fipronil would not attract insects because its attractant properties would be overwhelmed or drowned out by the molasses with which it was combined

(App. Br. 9-10). Therefore, Appellant contends the claimed method of attracting insects "is not a 'natural result flowing from' any of the methods disclosed by Hatton." (*Id.* at 9.)

This argument ignores Hatton's teaching that its compounds can be utilized in solid and liquid forms which do not involve baits comprising molasses (FF5, FF7, & FF8). The same can be said of Colliot which describes baits, but also other fipronil forms (FF11 & FF12). Thus, even were it true that the bait components would somehow mask fipronil's attractant properties, there is disclosure in each of Hatton and Colliot of non-bait fipronil forms in which fipronil is not associated with molasses or another food ingredient.

Appellant attempts to distinguish Hatton from the claimed method because Hatton discloses that "the compounds may reduce attacks on the plant by means of antifeeding or repellant effects." (FF9.) This argument is not persuasive. While Hatton may have believed that its compounds repelled insects, such belief does not change the fact that, when fipronil is applied to the soil, a plant, etc., as taught in the Hatton and Colliot publications, it would inherently have attracted insects, even if such a result was unappreciated and unrecognized. As mentioned above, appreciation of a result is not required to establish inherent anticipation.

Appellant contends that insects would not ingest fipronil. However, because the prior art teaches applying the same compound to soil and on plants, the Examiner had a reasonable basis to believe that it would be ingested. Appellant has not provided sufficient evidence that ingestion would not occur.

Appellant contends that *Jansen v. Rexall Sundown, Inc*., 342 F.3d 1329 (Fed. Cir. 2003) demands a different result (Reply Brief ("Reply Br.") 8, dated January 21, 2011).

> The preambles "for attracting insects" and "for attracting and killing insects" set forth the objective of the method, and the body of each claim directs that the method be performed on "said insects." The recitation of "said insects" In [sic] both claims 1 and 15 gives life and meaning to the preambles' statement of purpose.

In *Jansen*, the claims were directed to methods of treating or preventing macrocytic-megaloblastic anemia comprising administering effective amounts of folic acid and vitamin B12 "to a human in need thereof." *Jansen* at 1333. The Federal Circuit stated that the claim must be interpreted to require the method be practiced with the intent to achieve the objective stated in the preamble. *Id*. "The preamble is therefore not merely a statement of effect that may or may not be desired or appreciated. Rather, it is a statement of the intentional purpose for which the method must be performed." *Id*.

The reason why *Jansen* does not require a different result has already been addressed in *Ex parte Batteux*, Appeal No. 2007-0622, 2007 WL 5211675 (BPAI, Mar. 27, 2007, Informative Opinion).

> *Jansen* was an infringement case, requiring the court to construe the subject claim "so as to sustain [its] validity, if possible." *Whittaker Corp. v. UNR Indus*., 911 F.2d 709,712, 15 USPQ2d 1742, 1743 (Fed. Cir. 1990) (citing *ACS Hosp. Sys., Inc. v. Montefiore Hosp*., 732 F.2d 1572, 1577, 221 USPQ 929, 932 (Fed. Cir. 1984). In contrast, during prosecution, a claim must be given its broadest reasonable interpretation. Unlike the case here, in *Jansen*, the patentee was arguing a broad construction to establish infringement. 342 F.3d at 1331, 68

> USPQ2d at 1156. However, the court "strictly construed" the claim against the inventor, in view of statements made during prosecution. *Id*. at 1334, 68 USPQ2d at 1158.

Batteux, 2007 WL 5211675 at *5.

The "terms appearing in a [claim] preamble may be deemed limitations of a claim when they give meaning to the claim and properly define the invention." *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994). "Conversely, where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention, the preamble is not a claim limitation." *Rowe v. Dror*, 112 F.3d 473, 478 (Fed. Cir. 1997). In other words, a claim preamble is to be treated as a necessary claim limitation when it imparts some structure or other feature to the claimed invention. Thus, in *Rowe v. Dror*, a claim to a "balloon *angioplasty* catheter" was interpreted in view of the application specification to mean a catheter that could be "inflated radially outward to dilate a narrowed region in a blood vessel," distinguishing it from the more general class of balloon catheters. *Id.* at 479-80. The phrase "balloon angioplasty catheter" breathed "life, meaning, and vitality" into the claim because it accrued structural features to the catheter, in addition to those recited in the body of the claim, that enabled it to be used in the context of an angioplasty procedure. In this case, Appellant has not established that the "attracting" feature of the claim adds a structure or step which distinguishes the claim from the identical compound and identical method steps described in the Hatton and Colliot publications.

Claims 3, 7, 9, 20, and 22

Appellant also contends that the '460 patent shows the "unexpected result that fipronil acts as an attractant for cockroaches, which are well-known as insects that are able to enter or inhabit buildings." (App. Br. 11.) Appellant states that "Hatton does not suggest or disclose, either expressly of inherently, using fipronil to attract insects which are enable to enter or inhabit buildings." (*Id.*)

Claim 3 is drawn to the method of claim 1 where the insects "are insects which are able to enter or habit buildings." Hatton teaches that the compounds can be used "in the control of cockroaches, ant and termites and similar arthropod pests in infested domestic and industrial premises" (col. 16, ll. 23-25; FF4). When fipronil is used in such a context, in one of its conventional liquid or solid forms, the fipronil would inherently attract the insects.

As to the assertion of "unexpected results," we note that the latter is a secondary consideration available to rebut obviousness under Section 103, but not anticipation under Section 102, the rejections at issue in this appeal.

Claim 24

Claim 24 is drawn to the method of claim 15, where the fipronil "is offered with a carrier or surface-active agent." Appellant contends that Hatton describes the diluent or carrier with a food substance to induce consumption by an arthropod (App. Br. 11-12).

To the contrary, Hatton describes various examples in which fipronil is combined with carriers in non-bait forms (FF5 & FF7). Appellant's argument is not supported by the evidence.

None of the Examples in Hatton Contains Fipronil

Appellant contends Hatton discloses 236 compounds, only one of which is fipronil, and that none of the specific examples described in Hatton contains fipronil (Reply Br. 4). Appellant argues that the Examiner may not pick and choose among various teachings from a cited reference, but rather the reference must described the claimed invention as arranged in the claim (*id.* at 4-5).

Here, fipronil is specifically described in Hatton, albeit in a list of 236 compounds (FF2). However, the length of the list does not negate the express disclosure by Hatton of fipronil. A species which is specifically disclosed in a prior art reference is anticipatory even though it appears "without special emphasis in a longer list." *Perricone*, 432 F.3d at 1376.

There does not appear to be a specific example in Hatton of a formulation comprising fipronil. However, specific examples of the claimed subject matter are not necessary to establish anticipation. Rather, to anticipate, one skilled in the art must be able to "at once envisage" the claimed subject matter in the prior art disclosure. *In re Petering*, 301 F.2d 676, 681 (CCPA 1962).

In this case, Hatton has broad disclosure of utilizing a formula I compound to control arthropods (which includes insects) and provided a list of different formulations, all of which appear to be simply conventional

forms in which insecticides are used to control pests (FF1 & FF3-FF7). Persons of ordinary skill in the art would have immediately recognized that fipronil, which is expressly disclosed in Hatton, can be used in any of these forms, including non-bait forms. Appellant has not introduced sufficient evidence that Hatton's disclosure would be read more restrictively. Appellant contends that "picking and choosing" would be necessary to arrive at the claimed invention, but fipronil is expressly disclosed and thus the skilled worker would be led directly to it. Its ability to attract insects is an inherent property that would necessarily result from using it. All that remains is for the person of ordinary skill in the art to envisage it applied in any one of the conventional forms disclosed in Hatton, the latter which is expressly taught by Hatton (FF1, FF4, & FF5).

Kukorowski Declaration

Appellant cited a declaration by Dr. Kenneth A. Kukorowski, an author of the Colliot publication, who stated that fipronil was being researched in Colliot as a bait formulation and would not have attracted insects (¶ 6). This testimony ignores express disclosure in Colliot that fipronil "can be effectively delivered via soil." Colliot did not limit fipronil to the bait formulation, but expressly disclosed other applications (*see*, *e.g.*, F11).

Summary

We affirm the rejection of claims 1, 3, 7, 9, 15, 20, 22, and 24-26 under 35 U.S.C. § 102(b) as anticipated by Hatton; and claims 1, 15, 26, and

27 under 35 U.S.C. § 102(b) as anticipated by Colliot. Claims not argued separately fall with claims 1 and 15. *See* 37 C.F.R. § 41.37(c)(1)(vii).

TIME PERIOD FOR RESPONSE

Requests for extensions of time in this *ex parte* reexamination proceeding are governed by 37 C.F.R. § 1.550(c). *See* 37 C.F.R. § 41.50(f).

AFFIRMED

bim

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