

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte EDWARD FU, RATAN K.
CHAUDHURI and KOLAZI S. NARAYANAN

Appeal No. 95-2233
Application 07/978,014¹

ON BRIEF

Before WINTERS and SMITH, WILLIAM F., Administrative Patent Judges and McKELVEY, Senior Administrative Patent Judge.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

This appeal was taken from the examiner's rejection of claims 2 through 6, 8 and 9, which are all of the claims remaining in the application.

¹ Application for patent filed November 18, 1992.

INTRODUCTION

Initially, we observe that the prosecution history of this application and the briefings before the Board are not a model of clarity. For this reason, we contemplated remanding to the examiner. On reflection, however, we decided that we can resolve the issues presented on appeal and, in the interest of judicial economy, we shall do so.

REPRESENTATIVE CLAIM

Claim 2, which is illustrative of the subject matter on appeal, reads as follows:

2. A free-flowing, non-dusting water dispersible granule of an active agricultural chemical having low friability and effective crush strength for delivery to a desired site as a stable suspension in water, without deleterious foaming, comprising an active agricultural chemical and about 1-6% by weight thereof of a binder which will dissipate its binding action when the granule is immersed in water which is a copolymer of (a) polyvinylpyrrolidone and (b) a comonomer selected from butene and vinyl acetate, and mixtures thereof, and optional agents selected from the group consisting of defoamers, wetting agents and dispersing agents.

THE REFERENCES

The examiner relies on the following references:

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Morner et al. (Morner)	2,667,473	Jan. 26, 1954
Feyen et al. (Feyen)	5,230,892	Jul. 27, 1993
Narayanan et al. (Narayanan)	5,231,070	Jul. 27, 1993

THE ISSUES

In the Final Rejection mailed February 1, 1994 (Paper No. 4), the examiner sets forth a number of rejections:

(1) Claims 2 through 6, 8 and 9 under 35 USC § 112, first paragraph, as based on a non-enabling disclosure;

(2) Claims 2 through 6, 8 and 9 under 35 USC § 112, second paragraph, as indefinite;

(3) Claims 2 and 4 under 35 USC § 102(b) as described by Japanese Patent 3007202;

(4) Claims 2, 4, 6, 8 and 9 under 35 USC § 103 as unpatentable over a combination of five references, including Feyen and Morner but not Narayanan; and

(5) Claims 2 through 6 and 8 under 35 USC § 103 as unpatentable over a combination of six references, including Feyen, Narayanan, and Morner.

The advisory actions (Paper Nos. 6, 8 and 10) do not indicate that applicants have overcome any of the foregoing rejections. Nevertheless, in the Answer, the examiner only refers to two rejections and relies on three references as

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follows:

(1) Claims 2 through 6, 8 and 9 stand rejected under 35 USC § 112, second paragraph, as indefinite; and

(2) Claims 2 through 6, 8 and 9 stand rejected under 35 USC § 103 as unpatentable over the combined disclosures of Feyen, Narayanan, and Morner.

The only reasonable interpretation which these facts permit is that the examiner dropped all rejections set forth in the Final Rejection except the rejections specifically referred to in the Examiner's Answer. See Paperless Accounting, Inc. V. Bay Area Rapid Transit System, 804 F.2d 659, 663, 231 USPQ 649, 651-52 (Fed. Cir. 1986); § 707.07(e) of the Manual of Patent Examining Procedure (6th Edition, Rev. 2, July 1996).

Applicants state that the issue presented for review is whether the examiner correctly rejected claims 2 and 4 under 35 USC § 102(b) as described by Japanese Patent 3007202 or Morner. See the Brief before the Board, page 3, section entitled "The Issue Presented for Review". How the case could be briefed in this way escapes us. Again, see the Final Rejection mailed February 1, 1994 (Paper No. 4), setting forth two non-prior art rejections and three prior art rejections. In any event, based

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on the grounds of rejection set forth in the Examiner's Answer, this case presents two issues on appeal:

(1) Whether the examiner erred in rejecting claims 2 through 6, 8 and 9 under 35 USC § 112, second paragraph, as indefinite; and

(2) Whether the examiner erred in rejecting claims 2 through 6, 8 and 9 under 35 USC § 103 as unpatentable over the combined disclosures of Feyen, Narayanan, and Morner.

DELIBERATIONS

Our deliberations in this matter have included evaluation and review of the following materials:

(1) The instant specification, including Figures 1 and 2 and all of the claims on appeal;

(2) Applicants' Brief before the Board;

(3) The Examiner's Answer;

(4) The above-cited references relied on by the examiner;

and

(5) Paper No. 3 filed November 4, 1993, including copies of the trade literature attached thereto.

On consideration of the record, including the above-listed

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materials, we reverse the examiner's rejections. For the reasons discussed infra, we enter a new ground of rejection of claims 2, 4 through 6, 8, and 9 under 35 USC § 112, second paragraph, as indefinite.

THE EXAMINER'S REJECTIONS

Claims 2 through 6, 8 and 9 stand rejected under 35 USC § 112, second paragraph, as indefinite, in view of the recitation "quickly dissipate". According to the examiner, that phrase is "relative" and "some guidelines of time should be provided to remove ambiguity and specify this invention over all others". See the Examiner's Answer, page 3, first two paragraphs.

This rejection lacks merit because the claims on appeal, in relevant part, recite "a binder which will dissipate its binding action when the granule is immersed in water". The claims do not recite "quickly dissipate". Where, as here, the examiner's rejection is predicated on the recitation of a phrase which does not appear in the claims, the rejection must fall.²

Claims 2 through 6, 8 and 9 stand rejected under 35 USC § 103 as unpatentable over the combined disclosures of Feyen,

² A previous version of claim 2, as amended in Paper No. 3 filed November 4, 1993, recited "quickly dissipate". The claims on appeal do not.

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Narayanan, and Morner. On consideration of the record, we summarily reverse this rejection because the examiner does not state a prima facie case of obviousness which complies with the guidelines and criteria set forth in MPEP § 706.02(j) (6th Edition, Rev. 2, July 1996) entitled "Contents of a 35 U.S.C. 103 Rejection". See the Examiner's Answer, pages 3 and 4.

NEW GROUND OF REJECTION

Under the provisions of 37 CFR § 1.196(b), we enter the following new ground of rejection.

Claims 2, 4 through 6, 8 and 9 are rejected under 35 USC § 112, second paragraph, as misdescriptive and as not particularly pointing out and distinctly claiming the subject matter which applicants regard as their invention.

In Paper No. 3 filed November 4, 1993, page 3, first paragraph, applicants state that the binder in claim 2 is limited to Agrimer® AL 10 or Agrimer® VA 6 or mixtures thereof. Based on that statement, and further based on our review of the instant specification and the claims on appeal, we believe that applicants intend to limit the binder in their claims to Agrimer® AL 10 or Agrimer® VA 6 or mixtures thereof. See particularly page 7 of the specification, Examples 2, 3, and 4. However, the

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terminology in the claims is misdescriptive and does not particularly point out and distinctly claim the subject matter which the applicants regard as their invention. For example, "a copolymer of polyvinylpyrrolidone and vinyl acetate" recited in claim 4 and encompassed in claim 2, is incorrect. The correct terminology is "a copolymer of vinyl pyrrolidone and vinyl acetate" as described in the specification, Example 2.

Furthermore, "a mixture of the graft copolymer of polyvinylpyrrolidone and butene, and vinyl acetate" recited in claim 5 is incorrect. That claim should recite instead "a mixture of the graft copolymer of polyvinylpyrrolidone and butene and a copolymer of vinylpyrrolidone and vinyl acetate". Again, for the same reasons, we find that the mixture of "graft copolymer and vinyl acetate" recited in claim 6 is misdescriptive. Instead, applicants should recite a mixture of graft copolymer and a copolymer of vinylpyrrolidone and vinyl acetate.

Referring again to the specification, applicants use the terminology "a copolymer of vinylpyrrolidone and vinyl acetate" and "polyvinylpyrrolidone grafted with butene" or mixtures thereof. See the specification, page 7, Examples 2, 3 and 4. If the claims were amended to limit the binder, using that same terminology, it follows that the rejection entered under 37 CFR

§ 1.196(b) would be overcome.

OTHER ISSUES

Lost in the welter of issues in the prosecution history of this application is a legitimate question of patentability, not addressed by applicants or the examiner.

This invention relates to water dispersible granules (WDGs) of active agricultural chemicals. In the specification, pages 1 and 2, applicants outline what was known in the art at the time their invention was made respecting WDGs, as follows:

2. Description of the Prior Art

WDGs are important delivery vehicles for active agricultural chemicals because they are organic solvent-free, unlike emulsion concentrates, do not have dusting problems present with wettable powders, and can be transported more economically than suspension concentrates. WDGs are prepared by water-bonding particles of the active component. However, in the absence of a binder additive in the system, the granules will gradually lose cohesiveness as the water content is reduced by evaporation. An effective binder additive, therefore, must provide for effective granular crush strength and low friability, while enabling the granules to form stable suspensions in water during use, without deleterious foaming as a result thereof, and to quickly dissipate its binding action when immersed in water.

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Ligninsulfonate has been considered the binder of choice in WDG systems. Polyvinylpyrrolidone, in combination with urea, has been suggested for the same use (Canadian Patent 1,209,363).

This is the starting point or "jumping off" point of applicants' invention. As stated in Pro-Mold v. Great Lakes Plastics, 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629-30 (Fed. Cir. 1996), "[w]e start from the self-evident proposition that mankind, in particular, inventors, strive to improve that which already exists."

The question arises whether it would have been obvious, at the time applicants' invention was made, to use a copolymer of vinylpyrrolidone and vinyl acetate or a polyvinylpyrrolidone grafted with butene as the binder in WDG systems. On return of this application to the examining corps, we recommend that the examiner consider that question. In so doing, the examiner should take into account not only the above-quoted description of prior art set forth in the specification but also the Narayanan patent³ and the trade literature enclosed with Paper No. 3 filed November 4, 1993.

The Narayanan patent constitutes legally available prior art

³ In our judgment, Narayanan constitutes the closest prior art relied on in the Examiner's Answer.

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in view of its February 28, 1992, filing date. Narayanan discloses a copolymer of vinylpyrrolidone and vinyl acetate and a polyvinylpyrrolidone grafted with butene for use in agricultural formulations. See column 6, lines 10 through 22. Narayanan further discloses that the polymers of his invention, including the polymers described in column 6, are useful for controlling agrichemical leaching. According to Narayanan,

The inhibiting effect of the present polymers is achieved by their complexing, encapsulation, or blending with the agrichemical and applying to a plant site. In the leach inhibiting copolymers of the present invention, the lactam ring provides the hydrophilic moiety and the alkyl chain of the copolymer provides the hydrophobic portion. Correct balance between the hydrophilic and hydrophobic portions enable bonding of the agrichemical to the polymer and also cause a portion of the polymer to bind to the soil surface by either hydrophobic or hydrophilic interaction with organic matter in the soil. Thus, the polymer, together with the agrichemical, is more securely bound to the soil site where it is applied and leaching by rain water or irrigation is significantly reduced. In all instances, using the above active chemicals, a marked reduction, and in some cases, almost complete elimination of downward transmigration of the agrichemical from the immediate application area through the soil stratum is achieved. [emphasis added]

See Narayanan, column 4, line 59 through column 5, line 9. The

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examiner should consider whether the property disclosed by Narayanan, namely, "bonding of the agrichemical to the polymer", would have suggested using Narayanan's polymers as the binder in WDG systems.

We further recommend that the examiner review the trade literature (printed publications) enclosed with Paper No. 3 filed November 4, 1993. The examiner should first ascertain whether those publications constitute legally available prior art. In this regard, each publication is marked "The ISP Group 1992" on the back. International Specialty Products (ISP) is the real party in interest of the present application, which has a filing date of November 18, 1992.⁴

If the examiner ascertains that the above-described publications constitute legally available prior art, the examiner should carefully review the description of properties in those publications to determine whether it would have been obvious, at

⁴ The publication "Agrimer™ VA Polymers For Agricultural Formulations", first paragraph of text, states that the Agrimer™ VA products were previously used as adjuvants and inert ingredients outside the U.S. That previous use suggests the existence of another, earlier publication. The examiner should inquire from applicants whether this is so.

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the time applicants' invention was made, to use a copolymer of vinylpyrrolidone and vinyl acetate or a polyvinylpyrrolidone grafted with butene as the binder in WDG systems. For example, the publication "Agrimer™ AL Polymers For Agricultural Formulations" discloses that the Agrimer™ AL Polymers described therein are excellent adhesives. Likewise, the publication "Agrimer™ VA Polymers For Agricultural Formulations" discloses that the Agrimer™ VA Polymers described therein are good adhesives and also function as binders in wet granulation processes and binders for seed coatings.

CONCLUSION

In conclusion, the examiner's rejections under 35 USC § 112, second paragraph, and 35 USC § 103, are reversed. We enter a new ground of rejection of claims 2, 4 through 6, 8, and 9 under 35 USC § 112, second paragraph. We also recommend that the examiner

consider additional issues of patentability for the reasons set forth in the body of this opinion.

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REVERSED
37 CFR 1.196(b)

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SHERMAN D. WINTERS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
WILLIAM F. SMITH)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
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