

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte LOUIE H. JOHNSON

Appeal No. 2000-1339
Application 08/772,480

ON BRIEF

Before McQUADE, NASE, and GONZALES, Administrative Patent Judges.

McQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Louie H. Johnson appeals from the final rejection of claims 1 through 12 and 22. Claims 23 through 28, the only other claims pending in the application, stand

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objected to as depending from a rejected base claim.

THE INVENTION

The invention relates to a method for "applying a growth regulating chemical to a cotton crop via a wick applicator" (specification, page 1). Claim 1 is representative of the subject matter on appeal and reads as follows:

1. A method of applying a growth regulating composition to a cotton crop for reducing and controlling the rapid growth of the cotton crop, comprising: moving a wick applicator having a growth regulating composition therein over a field of cotton plants, and engaging an upper portion of certain cotton plants with the wick applicator and applying the growth regulating composition to the cotton plants as the wick applicator is moved over the cotton crop so as to reduce and control the rapid growth of the cotton plan [sic, plant].

THE PRIOR ART

The references relied upon by the examiner as evidence of obviousness are:

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Van Steen 29, 1994	5,297,358	Mar.
Clark et al. (Clark) 1998	5,705,648	Jan. 6,
Robertson 24, 1998	5,720,127	Feb.

THE REJECTION

Claims 1 through 12 and 22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Robertson in view of Clark and Van Steen.

Attention is directed to the brief (Paper No. 12) and to the final rejection and answer (Paper Nos. 10 and 13) for the respective positions of the appellant and the examiner with regard to the merits of this rejection.

DISCUSSION

I. Grouping of claims

On page 3 in the brief, under the "GROUPING OF CLAIMS" heading, the appellant indicates that claims 1

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through 3, 5 through 11 and 22 stand or fall together,
and that claims 4

and 12 stand or fall alone. Therefore, and in accordance with 37 C.F.R. § 1.192(c)(7), we have chosen representative claim 1 from the first group, and shall decide the appeal on the basis of claims 1, 4 and 12, with claims 2, 3, 5 through 11 and 22 standing or falling with claim 1.

II. The rejection of claim 1

Robertson, the examiner's primary reference, discloses "a method for distributing a liquid chemical to foliage and/or a substrate surface" (column 1, lines 8 and 9). The method involves the use of a contact distributor 1 attached to the back of a towing vehicle. Contact distributors of this sort avoid the unpredictability and safety hazards of spraying devices (see column 1, lines 13 through 18). In Robertson's words, the distributor

comprises a frame 4 having a plurality of applicators 5 attached thereto. The applicators are of the type having an elongate body with a

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covering of absorbent material, wetted with a liquid chemical. This may be embodied utilizing conventional techniques, such as providing a hollow body having end closures for containing a liquid chemical thereon, the elongate body having a plurality of openings therethrough to allow the egress of the liquid chemical through the openings. The exterior of the elongate body is then provided with an absorbent material, such as carpet-like material therearound, which absorbs the liquid chemical emitted through the holes. The absorbent material is therefore wetted with the liquid chemical, such that when foliage is contacted by the absorbent material, the liquid chemical is applied to the foliage. As illustrated in the drawings, the applicators may be provided in a plurality of rows, relative to the direction of travel [column 3, lines 3 through 18].

As for the manner in which this distributor may be used, Robertson teaches that

[a] useful application of the invention is for chemical application distribution to cotton plants, where fairly rigid plants are planted on raised peaks between troughs.

The provision of flexible connections or spring means between the various components of the device is particularly advantageous in such applications applying chemicals to such rigid foliage [column 3, lines 52 through 59].

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The appellant acknowledges (see page 4 in the brief) that the applicators disclosed by Robertson are "wick" applicators. Robertson's method of using such applicators meets all of the limitations in claim 1 except for those requiring (1) the application of a growth regulating composition which reduces and controls the rapid growth of cotton and (2) the engagement of the upper portion of certain cotton plants with the wick applicator. The appellant's contention that Robertson fails to teach the application of any composition to a cotton crop (see pages 6 and 7 in the brief) is clearly refuted by the second of the above reproduced passages from the reference.

Clark discloses the use of mepiquat chloride as a plant growth regulator in the cultivation of cotton. According to Clark,

[m]epiquat chloride has the effect on cotton plants of stunting vegetative growth thereby forcing the plant to redirect its energies into fruit (cotton boll) production. With appropriate application of mepiquat chloride to

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plants that are beginning to exhibit excessive vegetative growth, cotton plant yields can be maintained or increased without harm to the plant.

. . . Cotton plants that have directed the majority of the available plant energy to vegetative growth are referred to as "rank" cotton and produce little or no cotton bolls. Cotton that exhibits signs of going rank are readily

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visible by abnormal plant height relative to the boll loads. Mepiquat chloride is used to stop cotton from going rank by modifying the cotton plant's growth characteristics [column 1, lines 46 through 65]

Van Steen discloses a method for applying liquid to a crop using a wick applicator composed of a tubular member 10 provided with openings 11 and covered with textile material or cloth 12. The textile material or cloth 12 is wetted with liquid flowing out of the openings 11 and moved over the crop to distribute the liquid thereto via direct contact. Van Steen makes it clear that this applicator may be utilized to treat both weeds and cultivated crops (see column 1, lines 8 through 11; and column 3, line 66, through column 4, line 4).

The test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the

combined teachings of the references would have suggested to those of ordinary skill in the art. In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In the present case, the examiner's conclusion (see pages 2 and 3 in the final rejection) that the combined teachings of Robertson, Clark and Van Steen would have suggested the subject matter recited in claim 1 to one of ordinary skill in the art is well founded.

More particularly, Robertson's disclosure of the use of a wick applicator to apply chemicals to cotton plants in a relatively predictable and safe manner and Clark's disclosure of the beneficial effects of using mepiquat chloride as a growth regulating composition for cotton would have furnished the artisan with ample suggestion or motivation to combine the two by employing Robertson's wick applicator to apply Clark's growth regulating composition to the cotton. Furthermore, the teaching in Clark that mepiquat chloride is particularly effective in treating "rank" cotton plants which are abnormally high would have suggested engaging an upper portion of certain

cotton plants with the wick applicator. Van Steen buttresses Robertson's teaching that wick applicators of the type at issue here can be used to apply chemicals to cultivated plants (such as the cotton plants disclosed by Robertson). Thus, the appellant's position (see pages 3 through 10 in the brief) that the proposed combination of Robertson, Clark and Van Steen rests on impermissible hindsight is not persuasive. The various arguments advanced by the appellant in support of this position are predicated on the individual deficiencies of each of the references with respect to the claimed subject matter. It is well settled, however, that non-obviousness cannot be established by attacking references individually where the rejection is based upon the teachings of a combination of references. In re Merck & Co., Inc., 800 F.2d 1091, 1097, 231 USPQ 375, 380 (Fed. Cir. 1986).

Thus, the combined teachings of Robertson, Clark and Van Steen justify the examiner's conclusion that the differences between the subject matter recited in claim 1 and the prior art are such that the subject matter as a

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whole would have been obvious at the time the invention
was made to a person having ordinary skill in the art.

Hence,

we shall sustain the standing 35 U.S.C. § 103(a) rejection of claim 1, and of claims 2, 3, 5 through 11 and 22 which stand or fall therewith, as being unpatentable over Robertson in view of Clark and Van Steen.

III. The rejection of claim 4

Claim 4 depends from claim 1 and recites the step of controlling the rate of application of the growth regulating composition by incorporating an orifice into the wick applicator. As correctly pointed out by the examiner (see page 6 in the answer), this recitation would be met by the inherent action of the openings in the elongate body of Robertson's wick applicator through which the liquid chemical egresses.

Therefore, we shall sustain the standing 35 U.S.C. § 103(a) rejection of claim 4 as being unpatentable over Robertson in view of Clark and Van Steen.

IV. The rejection of claim 12

Claim 12 depends ultimately from claim 1 and requires a denim wicking material disposed around the wicking applicator. As indicated above, the wicking material disclosed by Robertson is an absorbent material such as a carpet material and the wicking material disclosed by Van Steen is a textile material. Although neither of these references specifies denim as a wicking material, the examiner nonetheless concludes that the use of denim as the wicking material on Robertson's wick applicator would have been obvious to one of ordinary skill in the art because "denim is a well known fabric which would meet the requirement of the unspecified material of Robertson and would provide the well known benefits of being relatively cheap and durable" (answer, page 7). The examiner's finding that denim is a well known, relatively cheap and durable material is reasonable on its face and has not been disputed by the appellant. Given this finding, the heavy duty nature of Robertson's exemplary carpet-like wicking material, the

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textile nature of Van Steen's wicking material, and the lack of any basis in the record establishing that the use of denim as broadly recited in claim 12 presents a new or unexpected result or solves a stated problem, the use of denim as a wicking material on Robertson's wick applicator would have been an obvious matter of choice within the skill of the art, notwithstanding the failure of the applied references to expressly disclose same (see In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 8-9 (CCPA 1975)).

Accordingly, we shall sustain the standing 35 U.S.C. § 103(a) rejection of claim 12 as being unpatentable over Robertson in view of Clark and Van Steen.

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SUMMARY

The decision of the examiner to reject claims 1 through 12 and 22 is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED

	JOHN P. McQUADE)	
	Administrative Patent Judge)	
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)) BOARD OF
PATENT		
	JEFFREY V. NASE)	APPEALS
	Administrative Patent Judge)	AND
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INTERFERENCES		
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)	
	JOHN F. GONZALES)	
	Administrative Patent Judge)	

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LARRY L. COATS
RHODES, COATS & BENNETT
909 GLENWOOD AVENUE
P.O. BOX 5
RALEIGH, NC 27602

JPM/dal