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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CARL L.C. KAH JR.¹

Appeal 2019-000473
Application 12/340,427
Technology Center 2100

Before ROBERT E. NAPPI, JAMES R. HUGHES, and
JOYCE CRAIG, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134(a) of the Final Rejection of claims 1 through 3, 7 through 18, and 20. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM-IN-PART.

INVENTION

The invention is directed to a controller for an irrigation station that receives moisture information regarding moisture in the soil from a moisture probe. The controller provides control signals to the irrigation station to

¹ We use the word Appellant to refer to “applicant” as defined in 37 C.F.R. § 1.42(a). Appellant identifies the real party in interest as the inventor Carl L.C. KAH Jr. App. Br. 3.

maintain the desire moisture level in the soil. Abstract and Paragraph 1 of Appellant's Specification. Claims 1 and 15 are illustrative of the invention and are reproduced below:

1. A control system for controlling at least one irrigation station in an irrigation system comprising:
 - a moisture probe operable to gather moisture information regarding moisture present in soil and positioned in a root zone surrounded by plant material at the irrigation station and periodically transmitting the moisture information, the moisture probe uniquely associated with the irrigation station via a unique pulse code during transmission; and
 - a controller operable to provide control signals to control flow of water from a sprinkler at the irrigation station at predetermined start times for a predetermined watering time period;
 - the controller further configured and operable to receive the uniquely coded moisture information from the moisture probe at the irrigation station to determine a change in water level of the soil based on the moisture information, and
 - to vary the predetermined watering time period of the sprinkler at the irrigation station to replace water lost in the soil as indicated by the determined change in water level at the irrigation station to replace the water lost based on a precipitation rate of the irrigation station determined based on the change in water level of the soil.

15. A method of controlling an irrigation zone of an irrigation system comprising:
 - providing a moisture probe at the irrigation zone of the irrigation system surrounded by plant material, the moisture probe uniquely associated with the irrigation zone;
 - gathering moisture information regarding a moisture level of the soil around the moisture probe;
 - periodically transmitting the moisture information;
 - receiving the moisture information at a controlled;
 - determining a water level change of the soil based on the moisture information; and

providing control signals from the controller to control water flow from a sprinkler in the irrigation zone to vary a watering time period of the sprinkler based on determined water level at each start time.

REJECTIONS AT ISSUE²

The Examiner has rejected claims 1 through 3, 7 through 17, and 20 under 35 U.S.C. § 103(a) as being unpatentable over Goldberg (US 2007/0055407A1; Mar. 8, 2007) alone or in the alternative in combination with Gibson (US 3,874,590; Apr. 1, 1975), and Cole (2005/0038763 A1; Feb. 17, 2005). Answer 3–6.

The Examiner has rejected claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Goldberg, Gibson, Cole and Clark (US 2005/0211793 A1; Sept. 29, 2005). Answer 6–7.

ANALYSIS

We have reviewed Appellant’s arguments in the Briefs, the Examiner’s rejections, and the Examiner’s response to Appellant’s arguments. Appellant’s arguments have not persuaded us of error in the Examiner’s rejections of claims 15 through 18 and 20 under 35 U.S.C. § 103(a), however, as we consider independent claim 1 ambiguous, we enter a new rejection under 35 U.S.C. § 112, second paragraph and reverse the obviousness rejection of claims 1 through 3 and 7 through 14.

New Rejection under 35 U.S.C. § 112 second paragraph

Claim 1 recites the following limitation:
to vary the predetermined watering time period of the sprinkler at the irrigation station to replace water lost in the soil as

² Throughout this Opinion, we refer to the Appeal Brief, filed May 18, 2018 (“App. Br.”), the Reply Brief, Filed October 25, 2018 (Reply Br.); the Examiner’s Answer, mailed August 27, 2018 (“Answer”), and the Final Office Action, mailed September 19, 2017 (“Final Act.”).

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indicated by the *determined change in water level at the irrigation station* [lim. A] *to replace the water lost* [lim. B] based on a precipitation rate of the irrigation station *determined based on the change in water level of the soil* [lim. c].
(Emphasis and designator added).

This limitation includes several ambiguities. Specifically, “to replace water lost in the soil as indicated . . . to replace water lost based on a precipitation rate” is ambiguous as it is unclear what is “water lost based upon a precipitation rate,” i.e., it appears that the second “to replace lost water” (lim. B) is a non-sequitur. Further, it is unclear whether the precipitation rate of the irrigation station is determined based upon the same change in water level of the soil as the determination of change in water level of the soil based on the moisture information used to vary the watering time period, or a prior change in water level of the soil, i.e., are lim. a and lim. b referring to the same determination? Accordingly, we enter a new rejection of independent claim 1 and dependent claims 2, 3, and 7 through 14 under 35 U.S.C. § 112 second paragraph.

Rejections under 35 U.S.C. § 103(a)

With respect to independent claim 1, Appellant argues that Goldberg does not teach varying the predetermined watering time based upon the precipitation rate of the irrigation system and does not teach varying the watering time to replace water lost in the soil. App. Br. 6–7, Rely Br. 2–3.

We do not reach these arguments. As discussed above, we consider independent claim 1 to be indefinite. Construing, the claim to consider Appellant’s arguments directed to the rejection under 35 U.S.C. § 103, would require speculation as to the scope of the claim. Thus, we do not

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sustain the Examiner's obviousness rejection of claims 1 through 3 and 7 through 14, as our reviewing court has said that it is wrong to rely upon speculative assumptions as to the meaning of claims when considering a prior art rejection. *In re Steele*, 305 F.2d 859, 862 (CCPA 1962).

With respect to independent claim 15, Appellant argues that the rejection is in error, as "Goldberg and Cole make no mention at all of conditions at any particular irrigation zone. Similarly, there is no discussion of Goldberg or Cole of varying watering time period at individual sprinklers." App Br. 8, Reply Br. 4.

The Examiner responds to Appellant's arguments, finding that Goldberg teaches adjusting the sprinkler time. Answer 9–10 (citing Goldberg paras. 34, 45, 310–338). Further, the Examiner finds that Goldberg teaches the sprinkler system has a plurality of zones, which are associated with a sensor. Answer 10 (citing Goldberg Figs. 1, 12, paras. 4, 19, 20, 35).

We have reviewed the cited teachings of Goldberg, and concur with the Examiner's finding that Goldberg teaches varying the watering time for a sprinkler in a zone as claimed. We additionally note that Examples discussed in paragraphs 356–358, 366–368, tables I, and VI, teach that the watering time is based upon the sensor reading (e.g. Table 1 shows different watering times for different sensor readings). Further, the sensor readings are indicative of change in water level are based upon moisture information, *see* Goldberg Abstract and paragraph 34. Thus, Appellant's arguments have not persuaded us the Examiner erred in rejecting independent claim 15.

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Accordingly, we sustain the rejection of claim 15 and dependent claims 16, 17, and 20, grouped with claim 15.³

Appellant does not provide separate arguments with respect to the rejection of dependent claim 18. Accordingly, we sustain the Examiner's rejection of claim 18 for the same reasons as claim 15.

CONCLUSION

The Examiner's decision rejecting claims 1 through 3, 7 through 18 and 20 is affirmed—in-part.

Claims Rejected	35 U.S.C. §	Reference(s)/Basis	Affirmed	Reversed	New Ground
	112, 2 nd para				1-3, 7-14
1-3, 7-17, 20	103 (a)	Goldberg, Gibson, and Cole	15 -17, 20	1-3, 7-14	
18		Goldberg, Gibson, Cole and Clark	18		
Overall Outcome			15-18, 20	1-3, 7-14	1-3, 7-14

This Decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b). This section provides that “[a] new ground of rejection . . . shall not be considered final for judicial review.”

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

³ Appellant groups claim 15 with claims 16, 17, and 20. App. Br. 8.

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(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 prosecution 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. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART; 37 C.F.R. 41.50(b)