

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RIZZOTTO GIANGUIDO,
POLUZZI RINALDO and ANDREA PAGNI

Appeal No. 96-3248
Application 08/022,347¹

HEARD: October 14, 1997

Before KRASS, JERRY SMITH and CARMICHAEL, Administrative Patent Judges.

JERRY SMITH, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed February 24, 1993.

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Rather than repeat the arguments of appellants or the examiner, we make reference to the briefs and the answer for the respective details thereof.

OPINION

We have carefully considered the subject matter on appeal, the rejection advanced by the examiner and the evidence of anticipation relied upon by the examiner as support for the rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, the appellants' arguments set forth in the briefs along with the examiner's rationale in support of the rejection and arguments in rebuttal set forth in the examiner's answer.

It is our view, after consideration of the record before us, that the disclosure of Nakano does not fully meet the invention as set forth in claims 9, 10, 12 and 21-23. Accordingly, we reverse.

As noted above, each of the appealed claims is rejected as being anticipated by the disclosure of Nakano. Anticipation is established only when a single prior art reference discloses, expressly or under the principles of inherency, each and every element of a claimed invention as well as disclosing structure which is capable of performing the recited functional

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limitations. RCA Corp. v. Applied Digital Data Systems, Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir.); cert. dismissed, 468 U.S. 1228 (1984); W.L. Gore and Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

The examiner has made an effort to read each of the appealed claims on the disclosure of Nakano by providing a side-by-side comparison of each of the claims and Nakano [answer, pages 3-5]. We appreciate the examiner's effort in this regard. Appellants argue that Nakano does not disclose the method for operating memories in a fuzzy logic controller in the manner recited in the claims.

With respect to claim 9, appellants argue that it recites that the membership functions of the logic variables in the front proposition of each rule be stored in a respective storage module. According to appellants, Nakano stores all membership functions for all the logic variables in a single storage module which does not meet the recitation of the claim [brief, page 6]. Appellants also argue that claim 9 recites that the membership functions of the rear implication be stored in a single storage module. According to appellants, Nakano stores the rear implication membership functions in separate storage modules

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which does not meet the recitation of claim 9. Finally, appellants argue that Nakano does not store the rear implication as two discrete terms for calculating a center of gravity as recited in claim 9 [brief, pages 6-7].

In the "Response to argument" section of the answer, the examiner does not directly address the first two arguments made by appellants, but the examiner does respond that Nakano teaches storing a memory word having two discrete terms for calculating center of gravity [answer, pages 5-6]. Appellants concede that Nakano stores front prepositions and rear implications separately, however, appellants again argue that Nakano does not store these values in the manner recited in claim 9 nor calculate center of gravity as specifically recited in the claims. We agree with the position of appellants for basically the same reasons put forth by them.

We agree with appellants that the examiner has merely demonstrated that Nakano separately stores front prepositions and rear implications, but claim 9 requires more than this. Claim 9 recites that the membership functions of each logic variable of the front preposition of each rule be stored in a respective storage module. We agree with appellants that this claim recitation requires that there be a group of storage modules and

that each module stores all the membership functions of a corresponding logic variable. Nakano discloses that the membership functions of the front preposition part of all the rules are pre-stored in the two-port RAM 57 [column 8, lines 30-36]. Nakano does not specifically disclose how two-port RAM 57 is arranged according to its addressing scheme, however, it is clear that the single RAM 57 of Nakano does not meet the claim limitation that there be a respective storage module for each logic variable of each rule. The two-port RAM 57 of Nakano constitutes a single storage module.

Claim 9 also recites that the rear implication part of the membership functions of each rule be stored in a single storage module, and that the functions are stored as memory words having two discrete terms for calculating a center of gravity. Although Nakano can be considered to store membership functions of the rear implication part of the rules in a single storage module (two-port RAM 67), the membership functions in Nakano are stored as three coordinate points in a three-axis coordinate system. Although the coordinate points in Nakano are used in a center of gravity computation, there is no disclosure in Nakano that each coordinate point is stored as two discrete terms for calculating a center of gravity. These observations may seem

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trivial to the examiner, but a rejection under 35 U.S.C. § 102 requires that all recitations of a claimed invention be found in a single prior art reference. We are not permitted to speculate as to whether an applied reference may operate to meet the recitations of the claims.

For the reasons just discussed, we agree with appellants that there are recitations in claim 9 which are not disclosed by Nakano. Therefore, we do not sustain the rejection of claim 9. Since claims 10, 12 and 21 depend from claim 9, the invention of these claims is also not anticipated by Nakano.

Independent claim 22 recites the storing of the front preposition part of the membership functions in the same manner as independent claim 9. For reasons discussed above, Nakano does not disclose this feature of the claimed invention. Therefore, we do not sustain the Section 102 rejection of claim 22 or of claim 23 which depends therefrom.

In summary, we have not sustained the examiner's rejection of claims 9, 10, 12 and 21-23 as being anticipated by the disclosure of Nakano. Therefore, the rejection of claims 9, 10, 12 and 21-23 is reversed.

REVERSED

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