

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS L. AFILANI

Appeal No. 2001-2031
Application No. 09/071,825

ON BRIEF

Before KRASS, LALL and SAADAT, Administrative Patent Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of claims 1-8 and 13-15. Claims 9-12 and 16 have been indicated by the examiner as being directed to allowable subject matter and form no part of this appeal.

The invention pertains to locating inanimate entities by dielectrophoresis.

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Representative independent claim 13 is reproduced as follows:

13. A method for locating a target inanimate entity with a locating device, the method comprising detecting a polarization charge pattern in accordance with a spatially non-uniform electric field pattern by a dielectrophoresis force exhibited by the target inanimate entity.

The examiner relies on the following reference:

Bakhoun	5,300,889	Apr. 5, 1994
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Claims 8 and 13 stand rejected under 35 U.S.C. 102(b) as anticipated by Bakhoun.

Claims 1-7, 14 and 15 stand rejected under 35 U.S.C. 103 as unpatentable over Bakhoun.

Reference is made to the briefs and answer for the respective positions of appellant and the examiner.

OPINION

Under 35 U.S.C. 102(b), a reference must disclose, explicitly or implicitly, every limitation of the claimed invention. Glaxo Inc. v. Novopharm Ltd., 52 F.3d 1043, 1047, 34 USPQ2d 1565, 1567 (Fed. Cir.), cert. Denied, 516 U.S. 988 (1995).

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Each and every claim requires that dielectrophoresis be used in some manner to effect the detection of a target inanimate entity. Claim 8 requires that the detection is of a maximum spatial gradient of an electric pattern field exhibited by the target inanimate entity in accordance with dielectrophoresis. Claim 13 detects a polarization charge pattern in accordance with a spatially non-uniform electric field pattern by a dielectrophoresis force exhibited by the target inanimate entity.

The examiner's rationale for the rejection under 35 U.S.C. 102(b) is that Bakhoun discloses a ground free electrostatic measurement device with an electrical charge storing capacitor, comprising an antenna, an air capacitor, a housing and an indicator for detecting any electromagnetic field of an object. The examiner urges that the needle produces an electric force "which is the same as the dielectrophoresis force."

As defined in the specification, at page 2, "dielectrophoresis" is descriptive of "the force and subsequent torque mechanical behavior of initially neutral mater [sic, matter] that is dielectric polarization charged via induction by external spatially non-uniform electric fields."

There is absolutely no mention of dielectrophoresis in Bakhoun so it is difficult to see how the examiner is applying

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this reference as an anticipatory reference against claims 8 and 13. Yet, it is the examiner's position that when Bakhoun detects a polarization charge and an electric field moves the needle, "the system also detects the polarization charge by the manifested dielectrophoresis force since it is already existed [sic] in the object in the nature [sic]" [answer-page 9]. Thus, it appears that the examiner is taking the position that since dielectrophoresis is a naturally occurring phenomenon, it must exist in the disclosure of Bakhoun.

We are unpersuaded by the examiner's rationale. While we agree that the dielectrophoresis phenomenon is known, a fact which appellant does not deny, the instant claimed subject matter is directed to a method of employing that known phenomenon in such a way as to detect a target inanimate entity. The methods of instant claims 8 and 13 certainly appear broad in scope but both require the detection of a target inanimate entity via the detection of something (a polarization charge pattern in accordance with a spatially non-uniform electric field pattern in claim 8, and a maximum spatial gradient of an electric pattern field in claim 13) in accordance with a dielectrophoresis force.

The examiner has declared, without any support, that the electric force moving the needle in Bakhoun "is the same as the

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dielectrophoresis force." Without evidence that Bakhoun clearly employs the dielectrophoresis force in some manner to detect or locate a target inanimate entity, as claimed, we will not sustain the rejection of claims 8 and 13 under 35 U.S.C. 102(b) as no anticipation has been shown.

With regard to claims 1-7, 14 and 15, the examiner rejects these claims under 35 U.S.C. 103 because, while the examiner admits that the reference does not specifically disclose the material of the housing, it would have been obvious to employ plastic or similar material for the housing of Bakhoun "for avoiding any affection of the inaccuracy of the electrostatic sensor" [answer-page 6].

We will not sustain the rejection of claims 1-7, 14 and 15 under 35 U.S.C. 103. Each of these claims, like claims 8 and 13, requires the use of a reaction of a dielectrophoresis force which, for the reasons supra, is not disclosed or suggested by Bakhoun. Moreover, independent claims 1 and 7 are apparatus claims which require a detector housing wherein that housing has a reference material chamber. While claim 7 does not refer to the use of that material, claim 1 does recite that the reference material is specifically chosen based on the target inanimate entity and that an antenna, in accordance with the reference

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material, reacts to the dielectrophoresis force driven by the electric field patterns. The examiner has not shown how any of this is suggested by Bakhoun.

As argued by appellant, at page 2 of the reply brief, "although dielectrophoresis has been known, no one has ever constructed an assembly of parts such as the claimed detector that effects detection of electric field patterns and spatial gradients of a target inanimate entity via a dielectrophoresis force reaction of a reference material within a reference material chamber." The examiner has offered nothing that successfully rebuts this argument.

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Accordingly, the examiner's decision rejecting claims 8 and 13 under 35 U.S.C. 102(b) and claims 1-7, 14 and 15 under 35 U.S.C. 103 is reversed.

REVERSED

ERROL A. KRASS)	
Administrative Patent Judge)	
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PARSHOTAM S. LALL)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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