

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 29

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte RONALD P. REITZ

Appeal No. 95-2489
Application 07/826,207¹

ON BRIEF

Before KIMLIN, WEIFFENBACH and OWENS, *Administrative Patent Judges*.

WEIFFENBACH, *Administrative Patent Judge*.

DECISION ON APPEAL

¹Application for patent filed January 22, 1992. According to appellant, this Application is a continuation of Application 07/599,162 filed October 17, 1990, now abandoned, which is a continuation-in-part of Application 07/219,523 filed July 15, 1988, now abandoned.

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-12, 19, 20, 22 and 23. In amendments (paper nos. 15 and 17) submitted after the final rejection, appellant amended claims 1 and 19, and canceled claims 6 and 23. The amendments were approved for entry by the examiner (paper nos. 16 and 18). Subsequent to the filing of the appeal brief, the examiner withdrew all grounds of rejection, and entered a new ground of rejection rejecting claims 1-5, 7-12, 19, 20 and 22 over prior art of record and newly cited prior art. See footnote 4, *infra*. In response to the new ground, appellant filed a reply brief along with an amendment under 37 CFR § 1.193(b) amending claims 1-4, 7-9, 11, 12, 19, 20 and 22, and adding new claim 26. The examiner notified appellant that both the reply brief and the amendment had been entered² and that the new rejection now included 26. Accordingly, claims 1-5, 7-12, 19, 20, 22 and 26 are before us for consideration. We reverse.

The Claimed Subject Matter

The claims on appeal are directed to an electroviscous fluid. Claim 1, as amended under 37 CFR § 1.193(b), is representative of the claimed subject matter and reads as follows:

1. A dual energy dependent electroviscous fluid, comprising:

a dielectric liquid; and

a multiplicity of aggregate particles dispersed in said dielectric liquid;

²We note that the amendment has not been clerically processed. Although the examiner indicated that the amendment had been entered, the file wrapper does not reflect a separate entry for the amendment or that the changes as requested by appellant have been made to the claims. This oversight should be corrected upon return of the application to the jurisdiction of the examiner.

substantial numbers of said aggregate particles each including a photovoltaic core and a dielectric shield;

said dielectric shield at least partially encapsulating said photovoltaic core;
said photovoltaic core including bipolar junction diode material which generates an electric potential in the presence of light;

whereby said electroviscous fluid has an electroviscous response upon exposure of at least some [sic] said photovoltaic cores to light and to an externally applied electric field.

References

The following references are relied upon by the examiner in support of the rejection of the claims for obviousness:

Block et al. (Block)	4,687,589	Aug. 18, 1987
Pedersen	4,737,886	Apr. 12, 1988
Inoue ³	63-97694	Apr. 28, 1988
Japanese Kôkai Patent Publication		

Grant et al. (Grant & Hackh's Chemical Dictionary), *Grant & Hackh's Chemical Dictionary*, 5th Edition, McGraw-Hill, Inc., pp. 120 and 524 (1987).

Rejection

Claims 1-5, 7-12, 19, 20, 22 and 26 stand rejected under 35 U.S.C. § 103 as being unpatentable over Block in view of Inoue and Peterson, taken further with Grant & Hackh's Chemical Dictionary.⁴

³Our consideration of this reference is based on an English translation which is of record.

⁴This rejection is a new ground of rejection because none of the rejections stated in the final rejection relied upon the Grant & Hackh's Chemical Dictionary. See page 7 of the examiner's answer. The final rejection included four grounds of rejection: a rejection of claims 5 and 20 under the first paragraph of 35 U.S.C. § 112, a rejection of claims 6 and 23 under (continued...)

Opinion

We have carefully considered the respective positions advanced by appellant and the examiner. For the reasons set forth below, we will not sustain the examiner's rejection.

Block discloses an electroreheological fluid comprising a liquid phase having dispersed therein electronic conductor particles such as a semiconductor (col. 1, lines 48-66). Block defines his semiconductor as being a “material through which electricity is conducted by means of electrons (or holes) rather than by means of ions” (col. 1, line 66 to col. 2, line 1). While the only examples of semiconductors disclosed by Block are organic semiconductors, the examiner relies on the definition of “semiconductor” in Grant & Hackh’s Chemical Dictionary to show that the term “semiconductor” includes silicon and that the term “solar cell” includes crystalline or amorphous silicon. Inoue discloses an electroviscous fluid comprising a fluid having dispersed therein fine particles consisting of an organic solid core surrounded by a thin inner layer of an electroconductive material and a thin outer layer of an electric insulative material (p. 1 of the Inoue translation) while Pedersen discloses an electroviscous fluid comprising an insulative oily medium wherein fibers of graphite are dispersed therein (col. 2, lines 18-24 and col. 3, lines 21-45).

⁴(...continued)

the second paragraph of 35 U.S.C. § 112, a rejection of claims 1-12, 19, 20, 22 and 23 under 35 U.S.C. § 103 over Block in view of Inoue and Pedersen, and a rejection of claims 1-12 over Petrzhick in view of Inoue and Pedersen. With the cancellation of claims 6 and 23 in an amendment after final (paper no. 15), the rejection under the second paragraph of 35 U.S.C. § 112 was rendered moot. In the answer, the examiner indicated that the rejection of claims 5 and 20 under the second paragraph of 35 U.S.C. § 112 had been withdrawn as well as the rejection of claims 1-12 and 19 under 35 U.S.C. § 103. The examiner did not restate the rejection of claims 1-12, 19, 20, 22 and 23 under 35 U.S.C. § 103 as set forth in the final rejection in her answer. Therefore, we presume that this rejection has been withdrawn. Where a ground of rejection does not appear in the examiner's answer, the rejection is assumed to have been withdrawn. *Ex parte Emm*, 118 USPQ 180 (Bd. App. 1957). Accordingly, the only rejection before us for consideration is the new ground of rejection stated in the answer.

Pedersen further discloses that the graphite particles may be coated with Teflon to reduce the tendency of the graphite fibers to coagulate (col. 3, 56-62)

Claim 1, as amended, requires that the particle have a photovoltaic core including a bipolar junction diode and a dielectric material at least partially encapsulating the photovoltaic core. We find that none of the references relied upon by the examiner teaches or suggests a particle having a photovoltaic core having a bipolar junction diode let alone a photovoltaic core having a bipolar junction diode at least partially encapsulated with a dielectric material.

The examiner concedes that Block does not specifically teach that the semiconductor disclosed by the patentee has at least one bipolar junction, but concludes in a summary fashion that “as silicon and germanium are well known semiconductors as shown by the definition of ‘semiconductor’ in Grant & Hackh’s Chemical Dictionary, and as appellant’s preferred bipolar junction diode material is either silicon or germanium ..., it appears that the teachings of Block et al, in view of Inoue and Pedersen, taken further with Grant & Hackh’s Dictionary are sufficient to make obvious the presently claimed invention” (suppl. answer: p.2). The bipolar junction must follow from the prior art, and not from appellant’s preferred materials. There is simply no teaching or suggestion in the prior art relied upon by the examiner, nor any detailed analysis of the prior art by the examiner, which would have led a person having ordinary skill in the art to the claimed subject matter, i.e. an electroviscous fluid containing a photovoltaic material having a bipolar junction diode which is at least partially encapsulated with a dielectric material.

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Accordingly, for the foregoing reasons, the examiner's decision is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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CAMERON WEIFFENBACH)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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)	
TERRY J. OWENS)	
Administrative Patent Judge)	

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