

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARK S. MILLER

Appeal No. 1998-2287
Application No. 08/211,157

ON BRIEF

Before KIMLIN, OWENS, and DELMENDO, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 6, 8, 10 through 12, 16, 18, 19, and 21 through 26. These are the only claims remaining in the application.¹

¹ In response to the final Office action of July 21, 1997 (paper 9), the appellant submitted an amendment under 37 CFR

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The subject matter on appeal relates to a magneto-resistive element comprising a particular "substantially amorphous" permalloy film. Further details of this appealed subject matter are recited in illustrative claim 6, which is reproduced below:

6. A magneto-resistive element comprising a substantially amorphous permalloy film, characterized by forming the substantially amorphous permalloy film with a grain size of less than 169 Angstroms by ion-beam sputter depositing the permalloy film at an energy below 500 electron-volts.

The examiner relies upon the following prior art references as evidence of unpatentability:

Griffith 1979 (Griffith '213)	4,158,213	Jun. 12,
Griffith 1981 (Griffith '910)	4,251,910	Feb. 24,
Narishige et al. 1991 (Narishige)	5,051,856	Sep. 24,

§ 1.116 (1981) on August 29, 1997 (paper 10), proposing cancellation of claims 7, 13-15, 17, and 20 as well as revisions to claims 6, 10, 16, 18, 19, and 21. The examiner indicated in the advisory action of September 15, 1997 (paper 11) that the amendment will be entered upon the filing of a notice of appeal and appeal brief. We note, however, that the amendment has not been clerically entered.

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C. Nishimura, K. Yanagisawa, and Y. Nagai (Nishimura), "Properties of Ion-Beam Sputtered Ni₂Fe Films," Masashino Electrical Communication Lab, NTT, Publication Date Unknown.²

Christopher V. Jahnes, Michael A. Russak, Bojan Petek, and Erik Klokholm (Jahnes), "Ion Beam Sputter Deposited Permalloy Thin Films," 28 IEEE Transactions on Magnetics, no. 4, 1904-1910 (July 1992).

In addition, the examiner relies on the appellant's discussion of the prior art at pages 1 through 3 of the present specification.

Claims 6, 8, 10, 11, 18, and 22 stand rejected under 35 U.S.C. § 102(b) as anticipated by Griffith '213 or Griffith '910.³ (Examiner's answer, pages 3-4.) Also, claims 6, 8, 10 through 12, 16, 18, 19, and 21 through 26 stand rejected under 35 U.S.C. § 103 as unpatentable over Griffith '213 or Griffith

² Although the date of this appellant-cited publication (PTO-1449 form attached to paper 9) is unknown, no challenge as to its availability as prior art has been made. In fact, the appellant has treated this reference as prior art. (Paper 10, p. 4.) Nevertheless, in the event of further prosecution, the appellant should provide further information regarding the prior art status of this reference.

³ Griffith '910 issued from a divisional application of the application which matured into Griffith '213. Accordingly, the appellant and the examiner have referred to these patents collectively as simply "Griffith." (Examiner's answer, p. 3; appeal brief, p. 7.)

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'910, each in view of the appellant's admitted prior art, Narishige, Jahnes, and Nishimura. (Id. at pages 4-7.)

Upon consideration of the record, we determine that one skilled in the relevant art would not be able to ascertain the scope of the appealed claims because no reasonably definite meaning can be ascribed to certain language appearing in these claims when read in light of the accompanying specification. Accordingly, we reverse the examiner's rejections under 35 U.S.C. §§ 102(b) and 103 on procedural grounds⁴ and, pursuant to 37 CFR § 1.196(b) (1997), we enter a new ground of rejection under the second paragraph of 35 U.S.C. § 112 (1999). The reasons for our determination follow.

In rebutting the §102 rejections, the appellant argues that "Griffith fails to teach an 'amorphous' permalloy film substantially identical to" that recited in the appealed claims. (Appeal brief, page 8.) Concerning the §103 rejection, the appellant contends as follows:

Griffith, the primary reference, merely states the permalloy film is "amorphous", without giving any details as to how the film was produced or its

⁴ We emphasize that this reversal is a technical reversal rather than one based on the merits.

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characteristics. Hence, at best Griffith meets the condition of amorphism but not the other limitations. None of Narishige, Jahnes and Nishimura meet the amorphism limitation, none is a granular film. [Id. at p. 13.]

Thus, a principal question raised in this appeal is: what is the scope of the term "substantially amorphous" appearing in all of the appealed independent claims? Stated in a slightly different way, we must first ascertain the scope of the appealed claims before we can decide whether the examiner applied the prior art correctly against the subject matter of the appealed claims. Gechter v. Davidson, 116 F.3d 1454, 1457, 1460 n.3, 43 USPQ2d 1030, 1032, 1035 n.3 (Fed. Cir. 1997); In re Paulsen, 30 F.3d 1475, 1479, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994). In our analysis, however, we must interpret these unpatented claims by giving words their broadest reasonable meanings in their ordinary usage, taking into account the written description found in the specification. In re Morris, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

As we have stated above, the appealed independent claims recite the term "substantially amorphous." By appellant's own

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admission, "[w]hether a film is 'crystalline' or 'amorphous' is a matter of degree and definition." (Paper 10, page 4.) Thus, the appealed claims recite a term of degree for which the specification must contain some standard for measuring the degree. Seattle Box Co., Inc. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984).

Despite the appellant's reliance on a term of degree (i.e., "substantially amorphous") to distinguish over the applied prior art, the specification lacks an express definition for the term. It is true that the specification explains that: (i) a $\langle 111 \rangle$ x-ray diffraction peak intensity of 26 counts per second is considered "substantially amorphous" (specification, pages 19 and 21); (ii) "around 100 counts per second" would be considered "nearly amorphous" (id. at page 24); and (iii) 863 counts per second would be considered "essentially crystalline" (id. at page 20). However, the specification does not define the scope of the term "substantially amorphous" and thus one skilled in the art would be unable to ascertain the metes and bounds of the claimed subject matter.

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Since one skilled in the relevant art would not be able to ascertain with a reasonable degree of certainty as to what would be covered by the language used in the appealed claims, it is not appropriate for us to decide whether the examiner correctly applied the prior art to the appealed claims. To do so would require us to engage in unwarranted speculation as to the meanings of terms and assumptions as to the scope of the appealed claims. In this regard, the predecessor of our reviewing court explained in In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) as follows:

All words in a claim must be considered in judging the patentability of that claim against the prior art. If no reasonably definite meaning can be ascribed to certain terms in the claim, the subject matter does not become obvious -- the claim becomes indefinite.

Because the process of interpreting the appealed claims would require us to engage in speculation as to the meaning of terms and assumptions as to the scope of the claim, we cannot properly determine whether the claimed invention encompassed by the appealed claims is in fact unpatentable over applied prior art. For these reasons, we reverse the examiner's

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rejections under 35 U.S.C. §§ 102(b) and 103. In re Steele,
305 F.2d 859, 862-63, 134 USPQ 292, 295 (CCPA 1962).

Pursuant to 37 CFR § 1.196(b), we enter the following new
ground of rejection:

Claims 6, 8, 10 through 12, 16, 18, 19, and 21 through 26
are rejected under the second paragraph of 35 U.S.C. § 112 for
failing to particularly point out and distinctly claim the
subject matter which the appellant regards as the invention.

The second paragraph of 35 U.S.C. § 112 (1999) states:

The specification shall conclude with one or
more claims particularly pointing out and
distinctly claiming the subject matter which the
applicant regards as his invention.

The "distinctly claiming" requirement means that the claims
must have a clear and definite meaning when construed in light
of the complete specification. Standard Oil Co. v. American
Cyanamid Co., 774 F.2d 448, 452, 227 USPQ 293, 296 (Fed. Cir.
1985). Thus, section 112 ensures definiteness of claim
language. Zletz, 893 F.2d at 322, 13 USPQ2d at 1322.

In this regard, the purpose of a patent claim is to
define the scope of protection and hence what the claim

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precludes others from doing.⁵ Because a patent confers upon the patentee the right to exclude others from making, using and selling the claimed invention, the public must be apprised of what the patent covers, so that those who approach the area circumscribed by the claims of a patent may readily and accurately determine the boundaries of protection in evaluating the possibility of infringement and dominance. In re Hammack, 427 F.2d 1378, 1382, 166 USPQ 204, 208 (CCPA 1970).

Applying these principles to the present case, we are convinced that the appealed claims fail to distinctly claim what the appellant regards as the invention for the reasons we have discussed above. That is, it is our opinion that one skilled in the relevant art would not be able to determine the scope of the appealed claims with any reasonable degree of certainty, because the meaning of the term "substantially amorphous" is unclear. Hence, the appellant has failed to meet his burden of precise claim drafting. Morris, 127 F.3d

⁵ In re Vamco Machine & Tool, Inc., 752 F.2d 1564, 224 USPQ 617 (Fed. Cir. 1985); Hybritech Inc. v. Monoclonal Antibodies, Inc., 802 F.2d 1367, 1385, 231 USPQ 81, 94 (Fed. Cir. 1986).

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at 1056, 44 USPQ2d at 1029 ("It is the applicants' burden to precisely define the invention, not the PTO's.").

In summary, we reverse the examiner's rejections under 35 U.S.C. § 102(b) of claims 6, 8, 10, 11, 18, and 22 as anticipated by Griffith '213 or Griffith '910 and under 35 U.S.C. § 103 of claims 6, 8, 10 through 12, 16, 18, 19, and 21 through 26 as unpatentable over Griffith '213 or Griffith '910, each in view of the appellant's admitted prior art, Narishige, Jahnes, and Nishimura. However, pursuant to 37 CFR § 1.196(b), we have entered a new ground of rejection under the second paragraph of 35 U.S.C. § 112 of all the appealed claims.

Time for taking action

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that "[a] new ground of rejection shall not be considered final for the purposes of judicial review."

37 CFR § 1.196(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

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ground of rejection to avoid termination of proceedings (37
CFR § 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the
claims so rejected or a showing of facts relating to
the claims so rejected, or both, and have the matter
reconsidered by the examiner, in which event the
application will be remanded to the examiner. . . .

(2) Request that the application be reheard
under 37 CFR § 1.197(b) by the Board of Patent
Appeals and Interferences upon the same record. . . .

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

REVERSED
37 CFR § 1.196(b)

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Administrative Patent Judge)	
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)	BOARD OF PATENT
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