

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. 12

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte

DONALD W. CLARK, and
C. WILLIAM CORNELSEN

Appeal No. 2000-1092
Application No. 08/933,959

ON BRIEF

Before KIMLIN, PAK AND LIEBERMAN , Administrative Patent Judges.

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the refusal of the examiner to allow claims 1 through 5, which are all the claims pending in this application.

THE INVENTION

The invention is directed to an iron powder having a median particle size diameter of less than or equal to 20 microns, the particle having a rounded, randomly shaped contour.

Additional limitations are provided in the following illustrative claim.

THE CLAIM

Claim 1 is illustrative of appellants' invention and is reproduced below.

1. Iron powder produced in accordance with the method of:

(a) heating iron oxide powder of a particle size diameter of less than 1000 microns in a reducing agent atmosphere at a temperature between 1000°F and 2100°F for a time sufficient to reduce the iron oxide powder to iron powder;

(b) cooling the heated iron powder in an inert gas atmosphere to a temperature below 150°F; and

(c) milling the cooled iron powder in an inert gas atmosphere to a median particle size diameter of less than or equal to 20 microns and with a rounded, randomly shaped contour.

THE REFERENCES OF RECORD

As evidence of obviousness, the examiner relies upon the following references.

Freeman	3,276,921	Oct. 04, 1966
König et al. (Konig)	5,403,375	Apr. 04, 1995

THE REJECTIONS¹

Claims 1 through 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Freeman or Konig.

OPINION

We have carefully considered all of the arguments advanced by the appellants and the examiner and agree with appellants for the reasons set forth below that the rejections of claims 1 through 5 through under §103(a) are not well founded. Accordingly, we reverse the rejection.

The Rejection under § 103

"[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability," whether on the grounds of anticipation or obviousness. In re Oetiker, 977 F.2d. 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). On the record before us, the examiner relies upon two references in the alternative to reject the claimed subject matter and establish a prima facie case of obviousness.

It is the examiner's position that, although the prior art neither uses the term "rounded, randomly shaped contour" nor discloses the process steps recited in

¹A rejection of claim 4 under 35 U.S.C. § 112, second paragraph, has been withdrawn by the examiner. See Answer, page 2.

product-by-process terms any collection of powders which are not completely uniform in shape and which contain few if any jagged edges “would meet the shape limitations recited in the claims, absent evidence to the contrary.” See Answer, pages 3 and 4. We disagree.

The composition of Freeman is directed to particles that are dendritic in nature, i.e., a branching figure resembling a tree. See column 1, lines 36-38. At most, we find that Freeman discloses “discrete particles” useful in medicine and as catalysts. See column 1, lines 43-44. We find that the particles may be discrete particles. See the footnotes to Table I. We further find that, “[o]ther conditions being constant, the powders prepared at low concentrations are finer and of a more discrete nature than those prepared at higher concentration.” See column 5, lines 53-55. However, notwithstanding these findings, there is no teaching or suggestion that the discrete particles have the requisite geometric shape required by the claimed subject matter.

Konig is similarly directed to fine-particle powders including Fe which have a defined particle size of 1.0 nm to less than 100 nm. See Abstract, column 1, lines 4-6 and column 2, lines 6-12. However, as with the prior reference, there is no teaching or suggestion that the discrete particles have the requisite geometric shape required by the claimed subject matter.

Furthermore, neither of the references discloses the claimed method for producing the powder or even a similar method. Nor, as we determined supra, does either of the references disclose the claimed “rounded, randomly shaped contour” as shown in Figure 6, a

micro-photograph of the finished iron powder product. Accordingly, on the record before us, we are constrained to reverse the decision of the examiner.

Because we reverse on this basis, we need not reach the issue of the sufficiency of the showing of unexpected results in the specification. In re Geiger, 815 F. 2d 686, 688, 2 USPQ2d 1276, 1278 (Fed. Cir. 1987).

DECISION

The rejection of claims 1 through 5 under 35 U.S.C. § 103(a) as being unpatentable over Freeman or Konig is reversed.

The decision of the examiner is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CHUNG K. PAK)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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