Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUJI SODA, YUKIO TOKUYAMA,
and HIROSHI USUI

Appeal No. 1997-4198
Application 08/542,399

ON BRIEF

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

LIEBERMAN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 1

through 6 which are all the claims remaining in the application.

THE INVENTION

The invention is directed to a metal powder having a spherical shape, an average particle size of 25 μm or less, and a tap density ratio of 50 - 60%. In one embodiment, the powder is prepared by forming metal particles from non-spherical molten metal by water atomization followed by subjecting the resulting particles to a high speed gas stream in the presence of a collision target.

THE CLAIMS

Claims 1 and 2 are illustrative of appellants' invention and are reproduced below.

1. A water-atomized metal powder having a spherical particle shape, an average particle size of 25 μm or less and a tap density ratio of 50 - 60%.

2. A method for producing water-atomized spherical metal powder, the method comprising forming metal particles of non-spherical shapes from molten metal by water-atomization, and subjecting the metal particles to a high speed gas stream to cause high speed collisions to occur between said particles and between said

particles and a collision target to form spherical particles having an average particle size no greater than 25 µm and a tap density ratio of from 50 - 60%.

THE REFERENCES OF RECORD

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

Klein et al. (Klein)	4,209,326	Jun. 24, 1980
Kiyota	5,006,164	Apr. 9, 1991

THE REJECTIONS

Claim 1 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Kiyota.

Claims 2 through 6 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kiyota in view of the admitted prior art and Klein.

OPINION

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with the appellants that the aforementioned rejection under 35 U.S.C. § 103(a) of claims 2 and 4 through 6 is not well founded. Accordingly, we will not sustain these rejections. We agree with the examiner that the rejection of claim 1 under 35 U.S.C. § 102(b) and claim 3 under 35 U.S.C. § 103(a) is well founded. Accordingly, we will sustain these rejections.

As an initial matter, appellants state that the claims do not all stand or fall together. Appellants argue for the separate patentability of claims 1 and 3, 2 and 5, and 4 and 6. See Brief, pages 2 and 3. Accordingly, we select claims 1 and 2, the

independent composition and method claim respectively, and claim 4 as representative of the claimed subject matter and limit our consideration thereto. 37 CFR § 1.192 (c)(7)(1995).

***The Rejection under 35 U.S.C. § 102*(b)**

In order for a claimed invention to be anticipated under 35 U.S.C. § 102(b), all of the elements of the claim must be found in one reference. ***Scripps Clinic & Research Found. v. Genentech Inc.***, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991).

The claimed subject matter requires a composition having a spherical particle shape, an average particle size of 25 µm or less and a tap density ratio of 50 - 60%. We find that Kiyota discloses a spherical iron powder having an average particle size from 2 to 6 µm. See Abstract, and column 2, lines 20-21. There is no disclosure in Kiyota of the requisite tap density ratio of the claimed subject matter. Nonetheless, it is the examiner's position that appellants' own Declaration, filed on March 26, 1997 teaches that water atomized particles of 7 microns or larger possess the requisite tap density ratio of the claimed subject matter. See Answer, page 5.

In our view, we find that Kiyota prepares spherical iron powder having an average particle size of 7.1 µm. See Table 1, column 5. The issue before us is whether this iron powder having the requisite spherical shape and particle size, also possesses the requisite tap density ratio. The Declaration submitted by appellants under 37 CFR § 1.132 discloses the preparation of iron particles prepared according to the disclosure of Kiyota. See Declaration, page 1. Hence, it is reasonable to conclude

that their size and shape would be the same as those particles prepared by Kiyota. Furthermore, we find that Sample 3 in Table 4, on page 2 of the Declaration discloses spherical metal particles having almost the identical size, an average particle size of 7.3 µm and a tap density ratio of 51.1%. We, accordingly, conclude that the particles disclosed by Kiyota and taught in the Declaration, having the same size and shape and prepared according to the disclosure of Kiyota, necessarily share other physical characteristics. Hence, it is reasonable to conclude that Kiyota's particles having a particle size of 7.1 µm, also have a tap density ratio falling within the scope of the claimed subject matter.

Based upon the above analysis and in accordance with our findings, ***supra***, we conclude that the properties of "tap density ratio" are inherently possessed by the prior art composition to Kiyota. The mere recitation of a newly discovered function or property inherently possessed by things in the prior art does not cause a claim drawn to those things to distinguish over the prior art. Rather, the burden of proof shifts to appellants to prove that the subject matter shown to be in the prior art does not necessarily produce the identical or substantially identical characteristics. ***In re Fitzgerald*** 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980); ***In re Best***, 562 F.2d 1252, 1255, 195 USPQ 430, 433-34 (CCPA 1977). Hence, we will sustain the rejection on the grounds of anticipation.

The Rejections under 35 U.S.C. § 103

Initially, we consider the rejection of claim 3 over Kiyota in view of the admitted prior art and Klein. We sustain this rejection. Appellants stated, that claims 1 and 3

forms a separate patentable group. See Brief, sentence bridging pages 2 and 3. Accordingly, the above claims stand together on the issue of obviousness, and we have affirmed the § 102 rejection of independent claim 1 as being anticipated by Kiyota, ***supra***. It is well settled that the ultimate obviousness is lack of novelty. The claims cannot have been anticipated and not have been obvious. ***In re Fracalossi***, 681 F.2d 792, 794, 215 USPQ 569, 571 (CCPA 1982). Accordingly, there is no further need to inquire into the disclosure of the admitted prior art and the secondary reference to Klein.

As to the balance of the claimed subject matter, in order to arrive at appellants' invention, one of ordinary skill in the art would have to utilize the process for the preparation of metal particles taught by Klein and apply it to the metal particles of Kiyota having an average particle size of 7.1 µm, particularly as Klein is silent both as to particle size and tap density ratios. However, we find neither motivation nor a reasonable expectation of success exists to apply a prior art process as taught by Klein to a comparative example of Kiyota.

The examiner must show reasons that the skilled artisan confronted with the same problems as the inventor and with no knowledge of the claimed invention would select the elements from the cited prior art references for combination in the manner claimed. We determine that there is no reason, suggestion, or motivation to combine the references in the manner proposed by the examiner. Accordingly, the examiner has not established a ***prima facie*** case of obviousness and the examiner's rejection of claims 2 and 4 through 6

as unpatentable over Kiyota in view of the admitted prior art and Klein is not sustained. ***In re Rouffet***, 149 F.3d 1350, 1357, 47 USPQ2d 1453, 1458 (Fed. Cir. 1998).

DECISION

The rejection of claim 1 under 35 U.S.C. § 102(b) as being anticipated by Kiyota is affirmed.

The rejection of claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Kiyota in view of the admitted prior art and Klein is affirmed.

The rejection of claims 2 and 4 through 6 under 35 U.S.C. § 103(a) as being unpatentable over Kiyota in view of the admitted prior art and Klein is reversed.

The decision of the examiner is affirmed in part.

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

AFFIRMED-IN-PART

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

PL:tdl

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