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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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* DEEPAK R. MANIAR

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Appeal No. 95-3759  
Application 08/145,118<sup>1</sup>

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ON BRIEF

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

WEIFFENBACH, *Administrative Patent Judge*.

**DECISION ON APPEAL**

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 1-10 and 12-22 which are all of the claims remaining in the application.<sup>2</sup> We reverse.

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<sup>1</sup>Application for patent filed November 3, 1993.

<sup>2</sup>We note that in the final rejection the examiner rejected claims 1-22 as being unpatentable over Laing. The inclusion of claim 11 in the rejection appears to be an inadvertent error on the part of the examiner because the examiner acknowledged  
(continued...)

### **Claimed Subject Matter**

The claims on appeal are directed to a method of preparing a developer composition comprising the steps of blending carrier particles with finely divided toner particles, separating fine particles and debris from coarse particles, and then blending the coarse particles with toner particles. On page 3 of the brief, appellant acknowledges all of the pending claims stand or fall together. Accordingly, we will limit our consideration to claim 1, the broadest independent claim, which reads as follows:

1. A method of preparing a developer composition comprising the steps of:
  - (1) blending carrier particles with finely divided toner particles, wherein blending is carried out for a period of time sufficient to enable the toner particles to alter the tribocharging ability of the carrier particles and become embedded therein;
  - (2) removing fine particles and debris by dividing the blend of toner particles and carrier particles into coarse particles and fine particles; and
  - (3) blending the coarse particles with toner particles.

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<sup>2</sup>(...continued)  
on the PTOL-326 summary action form of the final rejection and on page 2, ¶1 in the body of the action that claim 11 had been cancelled.

### References of Record

The following references of record are relied upon by the examiner as evidence of obviousness:

Laing et al. (Laing)	4,678,734	Jul. 7, 1987
Ong (Ong I)	5,300,387	Apr. 5, 1984
Ong (Ong II)	5,332,636	Jul. 26, 1994

### The Rejections

Claims 1-10 and 12-22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Laing.<sup>3</sup>

Claims 1-10 and 12-22 stand rejected under 35 U.S.C. § 103 as being unpatentable over Laing in view of Ong I or Ong II.<sup>4</sup>

Claim 1 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.<sup>5</sup>

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<sup>3</sup>See footnote 2, *supra*.

<sup>4</sup>This is a new ground of rejection.

<sup>5</sup>This is a new ground of rejection.

### Opinion

We have carefully reviewed the respective positions presented by appellant and the examiner. In so doing, we find ourselves in agreement with appellant that the applied prior art fails to establish the *prima facie* obviousness of the claimed subject matter and that the claims are not indefinite under the second paragraph of 35 U.S.C. § 112. Accordingly, we will not sustain any of the examiner's rejections for essentially those reasons advanced by appellant in the brief and reply brief. We add the following primarily for emphasis.

The examiner made a new rejection in the answer of claim 1 under the second paragraph of 35 U.S.C. § 112. According to the examiner, it was unclear (i) what is meant by the term “coarse particles” and (ii) what distinguishes “finely divided toner particles” from “fine particles” and “toner particles”. In response to this new ground of rejection, appellant pointed to page 4 of the specification where the terms “coarse” and “fine” are defined. The examiner subsequently withdrew that portion of the rejection pertaining to the meaning of the term “coarse particles”, but maintained the rejection with respect to the remaining grounds of the rejection.

The definiteness of claim language must be analyzed, not in a vacuum as the examiner appears to have done, but always in light of the teachings of the prior art and of the particular application disclosure as it would be interpreted by one possessing the ordinary level of skill in the pertinent art. *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). When so analyzed, we find that claims satisfy the requirements in the second paragraph of 35 U.S.C. § 112.

Appellant has defined the term “fine particles” in the specification as “those having particle size of less than about 2 microns, more preferably having a particle size of from about 0.3 to less than about 2 microns” (specification: p. 4). Appellant further states that the “fine” particles have an average diameter smaller than the average diameter of the “toner particles in the blend of carrier and toner particles” (id). Laing teaches a process of blending carrier particles and classified toner particles having a particle diameter of from about 2 microns to about 10 microns to alter the tribocharging ability of the carrier particles and then adding to the blended mixture classified toner particles having a diameter of from about 6 to about 18 microns (col. 4, lines 20-35). Thus, if Laing’s toner particles in the first blending step are greater than about 2 microns and appellant’s “fine particles” are less than about 2 microns, then one skilled in the art could distinguish between “finely divided toner particles” and appellant’s “fine particles.” As for distinguishing between “finely divided toner particles” and “toner particles,” appellant discloses that the “toner particles” used in the second blending step are from about 6 to about 18 microns (specification: p. 4) which is similar to that disclosed by Laing in his second blending step, and that the average diameters of the toner particles employed in the first blending step and the second blending step are different (specification: p. 5). Since appellant refers to Laing in the specification which refers to “fine toner particles” of the first blending step as having “a diameter of from about 2 microns to about 10 microns,” we find that one skilled in the art would readily be able to distinguish between “finely divided toner particles and “toner particles. Thus, the relative difference between “finely divided toner particles” from “fine particles” and “toner particles” would be known to a person having ordinary skill in the art when

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analyzed in light of appellant's specification and the prior art. Accordingly, for the foregoing reasons, we find that the examiner's rejection of claim 1 under the second paragraph of 35 U.S.C. § 112 lacks merit.

To make out a *prima facie* case of obviousness, the examiner must establish that a person having ordinary skill in the art would have been led to remove fine particles and debris after the initial blending step by a showing of facts or scientific reasoning flowing from the teachings of the prior art. *See generally In re Napier*, 55 F.3d 610, 613, 34 USPQ2d 1782, 1784-85 (Fed. Cir. 1995); *In re Shetty*, 566 F.2d 81, 86, 195 USPQ 753, 756-57 (CCPA 1977); *Ex parte Levy*, 17 USPQ2d 1461, 1462-1464 (Bd. Pat. App. & Int. 1990), and cases cited therein. The examiner has admitted that Laing does not teach or suggest a step of separating coarse particles and fine particles debris after the initial blending step. However, the examiner concludes that "[i]t would have been obvious to one having ordinary skill in the art at the time the invention was made to remove fine particles and debris by classifying the particles after the blending step to obtain the desired particle size and to divide out smaller toner particles as a result of the blending step because Laing et al. teaches [sic, teach] a desired range for the toner particles that is needed" (answer: p.3).

While Laing employs toner particles classified by particle size in his blending process, the examiner's conclusion of obviousness lacks an analysis of Laing and an explanation of why a person having ordinary skill in the art would have been led or motivated to retain the desired particle sizes disclosed by Laing and to remove fine particles and debris specifically after the initial blending step. At column 7, line 59 to column 8, line 32, Laing discloses that

[w]ith ... respect to the process of the present invention, during the first step of the blending process ... the toner particles mix with the carrier particles; and are believed, although it is not intended to be limited by theory, to act in a manner so as to cause a reduction in the triboelectric charging ability of the carrier surface.... Simultaneously, the charging ability of the toner particle is degraded. However, the selection of fine toner particles, those for example with an average diameter of from about 2 to about 10 microns, causes a substantial increase in the surface area of the toner that is able to act on the carrier surfaces without increasing the mass thereof; and permits an increase in the probability of the degraded toner particles of becoming impacted into any crevices or other spaces available on the carrier particle surface. Accordingly, the degraded toner particles become bound to the carrier surface and do not adversely impact the initial copy quality.

Similarly, in the second blending sequence a toner composition comprised of the same components as selected for the first blending operation is selected with the important exception that the diameter of the toner particles are about 6 to 18, and preferably 11 microns. Also, the second blending sequence is accomplished for a sufficient time period to enable the production of a homogeneous mixture of toner particles and carrier particles; and also to permit the toner particles to acquire charge by admixing with, and contacting the treated carrier surface... From about 1.25 percent to about 2.50 percent by weight of the toner is added in the second blending step, however, other amounts may be selected providing there is achieved the appropriate toner concentration that will preferably provide images with excellent resolution.

It appears to us from the above teaching from Laing that because it is desirable to employ to increase the surface area of the toner particles to increase the probability of embedding the toner into the crevices or other spaces on the carrier surface, there is no reason to remove fine particles of toner or any other fine particle in the process. Moreover, Laing does not teach or suggest that debris, i.e. dust, carrier tips and oxide particles (see page 4 of appellant's specification where the "debris" is defined), in the final blend would be undesirable. For the foregoing reasons, we find that the teachings of Laing would not have motivated a person skilled in the art to separate debris and fine particles from coarse particles as suggested by the examiner. The examiner's suggestion for such a

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separation step could only have come from appellants' disclosure. It did not flow from the teachings of Laing. The Ong I and Ong II references do not make up for the deficiencies of Laing. Accordingly, the examiner's rejections of claims 1-10 and 12-22 over Laing and the combined teachings of Laing, Ong I and Ong II cannot be sustained.

For the aforementioned reasons, the examiner's rejections of claims 1-10 and 12-22 are reversed.

**REVERSED**

EDWARD C. KIMLIN )  
Administrative Patent Judge )  
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CAMERON WEIFFENBACH )  
Administrative Patent Judge )  
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CHARLES F. WARREN )  
Administrative Patent Judge )

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