

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARCOS ESTERMAN JR. and
SANTIAGO I. RODRIGUEZ

Appeal 2008-2453
Application 10/969,599
Technology Center 2800

Decided: August 29, 2008

Before CHARLES F. WARREN, PETER F. KRATZ, and
MICHAEL P. COLAIANNI, *Administrative Patent Judges*.

COLAIANNI, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 the final rejection of claims 1-23. We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6(b).

We AFFIRM.

INTRODUCTION

Appellants claim a method for controlling printing in a system that prints both single-color and multicolor documents comprising determining the number of documents of a print job and ascertaining that a number of

consecutive documents of the print job can be printed in a single-color mode and switching the system to single-color mode based on the ascertaining and the determining steps (claim 1). Appellants further claim a printing device that prints both single and multicolor documents of a print job comprising, in relevant part, a plurality of rotating drums, a controller that controls the rotation of the drums wherein as a function of the number of documents of the print job and the number of consecutive documents of the print job that can be printed in a single-color mode, the controller causes at least one of the plurality of rotating drums to come to a stop while at least one other of the plurality of drums continues to rotate (claim 11). Appellants disclose that stopping the rotation of unused drums minimizes wear on the drums and their associated mechanical and electrical components (Spec. ¶ [0008]).

Claims 1, 11, and 18 are illustrative:

1. A method for controlling printing in a system that prints both single-color and multicolor documents, the method comprising:

determining the number of documents of a print job;

ascertaining that a number of consecutive documents of the print job can be printed in a single-color mode; and

switching the system to the single-color mode based on the ascertaining and the determining steps.

11. A printing device that prints both single and multicolor documents of a print job, comprising:

a plurality of rotating drums, each of which deposits toner onto a medium:

a formatter for converting the print job into a series of raster commands;

a controller that controls the rotation of the plurality of rotating drums; wherein

as a function of the number of documents of the print job and the number of consecutive documents of the print job that can be printed in a single-color mode, the controller causes at least one of the plurality of rotating drums to come to a stop while at least one other of the plurality of rotating drums continues to rotate.

18. A system that prints both single-color and multicolor documents, comprising:

means for determining the number of documents in the print job;

means for determining that a number of consecutive documents of the print job are to be printed using a single color of toner; and

means for switching the printer from a multicolor mode of a single-color mode based on the determined number of documents and the determined number of consecutive documents of the print job that are to be printed using a single-color of toner.

The Examiner relies on the following prior art references as evidence of unpatentability:

Munemori	6,029,023	Feb. 22, 2000
Ichikawa	US 2005/0025513 A1	Feb. 3, 2005

The rejections as presented by the Examiner are as follows:

1. Claims 1-4, 6-9, 11, and 13-21 are rejected under 35 U.S.C. § 102(b) as being unpatentable over Munemori.
2. Claims 5, 10, 12, and 22 are rejected under 35 U.S.C. § 103 as being unpatentable over Munemori in view of Ichikawa

3. Claim 23 is rejected under 35 U.S.C. § 103 as being unpatentable over Munemori.

OPINION

35 U.S.C. § 102 REJECTION OVER MUNEMORI

Appellants separately argue claims 1 and 11. Appellants advance no further arguments for independent claim 18 except those made regarding claim 1 (Br. 6). Therefore, we address Appellants' arguments with regard to claims 1 and 11.

CLAIMS 1 AND 11

Regarding claim 1, Appellants argue that Munemori fails to disclose switching the system to the single color mode based on an ascertained number of consecutive documents of the print job that can be printed in a single color, and a determined number of documents in the print job (Br. 4-5). Regarding claim 11, Appellants contend that Munemori fails to disclose a controller that can cause at least one of a plurality of rotating drums to come to a stop while at least one other of the plurality of rotating drums continues to rotate as a function of the number of documents of the print job and the number of consecutive documents of the print job that can be printed in a single color mode (Br. 6).

A claim is anticipated only if each and every element as set forth in the claim is found either expressly or inherently described in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of Cal.*, 814 F.2d 628, 631 (Fed. Cir. 1987).

Munemori discloses an image forming apparatus, such as a copying machine or printer, which can form a full-color image (Munemori, col. 1,

ll. 11-16). Munemori discloses that the apparatus is controlled to switch from color mode to monochrome (i.e., single color) mode only when a predetermined condition is satisfied such that the image holding components (i.e., photoconductive drums) used for color printing are suppressed to extend the lifespans of the components (Munemori, col. 3, ll. 12-24).

Munemori discloses a first embodiment that counts the number of consecutive monochrome copies (n) and compares that with a preset number (m) stored in memory to determine if the number of consecutive monochrome copies (n) equals or exceeds the preset number (m) and the controller stops the color photosensitive drums if n is greater than or equal to m (Munemori, col. 14, ll. 64-67; col. 15, ll. 1-15). Munemori further discloses a third embodiment, which is the same as the copier of the first embodiment except for the construction of the CPU 501B (Munemori, col. 17, ll. 48-50). Munemori discloses that CPU 501B judges whether each document to be copied is color or monochrome before image formation and stores the order of the documents and the number of copies to make for each document such that the mode of the copier is switched between color and monochrome mode when necessary (Munemori, col. 17, ll. 40-46).

Munemori shows that the copying order storage unit stores color judging information and numbering information (R) for each of the recording sheets on which the image of the corresponding document is reproduced (Munemori, Figures 17 and 18; col. 18, ll. 11-30; 57-65; col. 19, ll. 32-45).

Munemori uses the scanned information of all the documents to switch to monochrome mode immediately before the monochrome image forming operations are successfully performed on a preset number of consecutive

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copies, such as “2” in Munemori (Munemori, col. 18, ll. 45-56; col. 19, ll. 20-25).

Based on these disclosures, we agree with the Examiner that Munemori discloses the argued method steps of claim 1 and the controller is capable of performing the functional recitations of claim 11. Specifically, Munemori discloses that the third embodiment includes numbering and storing color information about each of the documents to be copied. In other words, Munemori discloses determining the number of documents in a print job by numbering each document and recording color information for each document. Munemori further discloses in the third and first embodiments determining if the number of consecutive monochrome copies in a print job exceeds a preset number, and using a controller to switch to monochrome mode (i.e., stopping the color photosensitive drums) if the relationship is satisfied. Accordingly, we, find that Appellants’ argued distinctions regarding the method and device are disclosed by Munemori.

For these reasons, we sustain the Examiner’s § 102 rejection of claims 1-4, 6-9, 11, and 13-21 over Munemori.

35 U.S.C. § 103 REJECTIONS

Appellants do not present additional arguments directed to the dependent claims subject to the obviousness rejections and the additional reference applied to all but one of these dependent claims (Br. 6-7).

In light of our disposition of the Examiner’s anticipation rejection of the independent claims by Munemori and in the absence of additional argument against the obviousness rejections of dependent claims 5, 10, 12, 22, and 23, it follows that we shall also sustain the § 103 rejection of claims

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5, 10, 12, and 22 over Munemori in view of Ichikawa, and the § 103 rejection of claim 23 over Munemori.

DECISION

The Examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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