Paper No. 21

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte MASANOBU MAESHIMA, HIROSHI KUBOTA, KOICHI YASUDA, SHIGEKI HAYASHI and MASAHIRO HASHIZUME

Appeal No. 1997-0214
Application 08/155,560[1]

ON BRIEF[2]

Before THOMAS, RUGGIERO, and HECKER, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

[1] Application for patent filed November 22, 1993.

[2] The oral hearing set for October 20, 1999 was waived by appellants in a fax communication received on October 1, 1999.

Appellants have appealed to the Board from the examiner's final rejection of claims 1 and 2 which constitute all the claims on appeal.

Representative claim 1 is reproduced below:

1. An image-forming machine comprising:

an electrostatic latent image-bearing member on the surface of which an electrostatic latent image is formed;

an exchangeable developing unit for developing an electrostatic latent image formed on a surface of an electrostatic latent image-bearing member, said developing unit including a developing housing, a developing agent contained in said developing housing, and a developing agent application means for applying said developing agent onto a surface of an electrostatic latent image-bearing member;

a developing agent depletion detecting means for detecting the depletion of the developing agent from said developing housing;

a counter means that can be reset and counts the number of times said developing unit is used; and

an exchange signal forming means that generates a developing unit exchange signal either when said developing agent depletion detecting means has detected the depletion of the developing agent or when said counting means has counted a predetermined number.

The following references are relied on by the examiner:

Blitzer 4,155,638 May 22, 1979
Fukuchi et al. (Fukuchi) 5,220,379 June 15, 1993
(filed July 22, 1991)

Claims 1 and 2 stand rejected under 35 U.S.C. § 103. As to claim 1, the examiner relies upon Fukuchi alone, with the addition of Blitzer as to claim 2.

Rather than repeat the positions of the appellants and the examiner, reference is made to the brief and the answer for the respective details thereof.

OPINION

We sustain both rejections of claims 1 and 2 under 35 U.S.C. § 103.

Appellants' summary of the invention in the brief correctly correlates the claimed invention in claim 1 to the features disclosed. More specifically, the claimed developing agent depletion detecting means is element 68 in Figures 3 through 5 which provides an input to the control means or microprocessor 74 in Figure 5. Similarly, the claimed counter means of claim 1 is element 78 in Figure 5. The claimed exchange signal forming means comprises the control means 74

in Figure 5. This is consistent with the disclosed invention describing the functionality with respect to these identified disclosed elements from page 14 through the top of page 17 of the specification as filed in addition to the initial portion summarized at page 21 beginning at line 20.

Although we agree with appellants' correlation of the claimed elements to the features of Fukuchi at pages 6 and 7 of the brief, we do not agree with appellants' conclusion since appellants' view of the identified teachings in Fukuchi is incomplete.

There is no dispute that the claimed counter means and the claimed developing agent detecting means are shown and taught in Fukuchi. For example, Figure 5 of this reference shows the process cartridge 30 provided with a counter C providing an output counter signal S, the count of which indicates the number of times of use of the process cartridge 30. Similarly, on the right portion of this figure the developer replenishment unit 30A (Figure 1) has an output from a sensor P as an output S' indicating a need for replacement of the process cartridge 30 when its level of the enclosed toner becomes low.

Appellants' reference in the brief to column 9 of Fukuchi is correct but it is incomplete since it fails to consider the logical operation of the control unit circuit diagram in Figure 9. To the extent appellants' claimed exchange signal forming means is said to be operative in accordance with the logical OR gate as represented at page 6 of the brief and argued at the top of page 9 of the brief, Figure 9 of Fukuchi shows an identical circuit structure corresponding to the claimed exchange signal forming means as the control unit in this figure. The depicted (developer) replenishment detection input signal (lower left of Figure 9) comprises the signal S' exiting the Figure 5 showing in this reference. A similar showing exits the signal for detecting replacement of the process supplies in Figure 9 that is outputted in Figure 5 as representative signal S to a logical OR gate feeding the control unit, which in turn indicates through the respective activation of lights L2 and L3 in Figure 8 (and the top left portion of Figure 9)the need to replenish the toner and/or replace the entire process supplies.

This logical OR operation is reflected in the discussion at column 9, lines 62-66 and further described in accordance

with the operation of Figure 9 and its corresponding figure 10(a) and 10(b) in association with the discussion beginning at column 10 through column 14 in the embodiment associated with Figure 1 of this reference. The output of the OR gate shown in Figure 9 clearly is a single output signal feeding the control unit in that figure. Thus, it is apparent that the claimed exchange signal forming means, which is disclosed as control unit 74 in Figure 5 of the disclosed invention, is identically disclosed in a similar control unit in Figure 9 of Fukuchi. Therefore, there is taught in this reference equivalent structure performing identical functions as claimed in representative claim 1 on appeal.

As to dependent claim 2, this rejection as well is sustained. Appellants' arguments at pages 9 and 10 of the brief rely for patentability upon the alleged deficiencies of Fukuchi, which we have found is not deficient. Similarly, there is no need for Blitzer to remedy an omission as to Fukuchi. Finally, appellants have not asserted any position that the examiner's position as to the combinability of and what Blitzer teaches are in error.

In view of the foregoing, the decision of the examiner rejecting claims 1 and 2 under 35 U.S.C. § 103 is affirmed.

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

AFFIRMED

James D. Thomas Administrative Patent Judge	)	
Joseph F. Ruggiero Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
Stuart N. Hecker Administrative Patent Judge	)	

JDT/cam

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