Paper No. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte XIN WEN

Appeal No. 2000-1972
Application No. 08/928,002

ON BRIEF

Before URYNOWICZ, LALL, and BLANKENSHIP, Administrative Patent Judges.

URYNOWICZ, Administrative Patent Judge.

Decision on Appeal

This appeal is from the final rejection of claims 1-13.

The invention pertains to ink jet printers. Claim 1 is illustrative and reads as follows:

1. An ink jet printing apparatus adapted to producing images using inks having predetermined concentrations of a label material therein; said apparatus comprising:

a printhead;

an ink delivery system adapted to provide inks to the printhead; and

a sensor associated with said ink delivery system, said sensor being sensitive to the label material in the ink and adapted to produce a signal which is characteristic of the concentration of the label material in the ink.

The references relied upon by the examiner are:

Anderson	5,424,766	Jun. 13, 1995
Yokono	5,754,195	May 19, 1998

Claims 1-4 stand rejected under 35 U.S.C. § 102(b) as anticipated by Anderson.

Claims 5-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson.

Claims 11-13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Yokono.

The respective positions of the examiner and the appellant with regard to the propriety of these rejections are set forth in the examiner's answer (Paper No. 16) and the appellant's brief (Paper No. 15).

Appellant's Invention

The invention is described at page 2 of the brief.

The Anderson Patent

Anderson discloses a control system for an ink jet printer that employs acoustic transducers to measure the velocity of sound in the ink and in a reference chamber containing only fresh ink. The two measurements are compared to determine when to add additional solvent to the system to maintain solids concentration in the ink substantially constant.

Grouping of Claims

At page 3 of the brief, appellant has stated that the claims within each group stand or fall together. The claims are grouped as follows:

Claims 1-5 and 10-13;

Claim 6;

Claim 7;

Claim 8; and

Claim 9.

The Rejection of Claims 1-4 under

35 U.S.C. § 102(b)

At pages 3-5 of his brief, appellant argues that claims 1-4 are not anticipated by Anderson. With respect to

claim 1, it is argued that Anderson's sensor is one which detects the concentration of non-evaporative ink solids, while the claimed sensor has the structure for sensing label material. It is urged that the phrase "label material" as used in the claim is not the same as the non-evaporative ink solids of Anderson. Appellant states that his specification at page 11, lines 23-29, teaches,

> [t]he term "detectable label material" refers herein to an ink ingredient that is added to the ink . . . . The concentration of the detectable label material to the concentration of the colorant is held as constant in the ink. The detectable label material is, however, not required to perform any other functions in the printhead or on the receiver media. In other words, the ink can achieve desired print qualities without the assistance of the detectable label materials.

Appellant submits that the above disclosure requires that the phrase "label material" as used in the claims identifies an ingredient which is only used to identify a characteristic of the ink, and is not used for printing optical density on a receiver.

We are not persuaded by this argument and will sustain the rejection of claims 1-4. The above disclosure

does not require that the label material be used only as a label, such that it does not perform any other function, such as achieve print quality. Accordingly, the nonevaporative ink solids of Anderson meet the label material of the claims in that a sensor is sensitive to the concentration of solid material, and is adapted to produce a signal which is characteristic of the concentration of the material in the ink. The fact that Anderson's solid material may perform one or more functions besides acting as a label is irrelevant to the rejection.

Whereas there is no rejection of claims 1-4 under 35 U.S.C. § 103, appellant's argument at page 5, lines 1-18, of the brief that it would not have been obvious to modify Anderson so as to render the claimed invention obvious is dismissed.

The Rejections of Claims 5 and 10-13

Whereas appellant has indicated that claims 1-5 and 10-13 stand or fall together, and we will sustain the rejection of claims 1-4, we will sustain the rejection of claims 5 and 10 under 35 U.S.C. § 103(a) as being unpatentable

over Anderson and of claims 11-13 under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Yokono.

The Rejection of Claims 6-9 under

35 U.S.C. § 103(a)

Each of claims 6-9 depends directly from claim 1 and each recites that the sensor is adapted to sense a property of the label material. In claim 6, the sensor is adapted to sense a magnetic field; in claim 7, the sensor is adapted to sense an electromagnetic field; in claim 8, the sensor is adapted to sense infrared photons; and in claim 9, the sensor is adapted to sense fluorescent photons. At page 6, lines 17-21, of the answer, the examiner asserts that such sensors are notoriously well-known in the printer art, and that the sensor is selected to sense the ink depending upon the type of ink, as admitted in appellant's specification at page 12.

We will not sustain the rejection of claims 6-9. There is no evidence supporting the examiner's assertion that the sensors in question are notoriously well-known in the printer art. Furthermore, at page 12 of appellant's specification, appellant merely acknowledges that various types of sensors are known. There is no admission that it was

known to use any of the sensors to sense a magnetic field, electromagnetic field, infrared photons or fluorescent photons of a label material in an ink. Absent a teaching in the prior art of using a label material producing a magnetic field, an electromagnetic field, infrared photons or fluorescent photons, there would be no reason or motivation to utilize known sensors to detect such fields or photons in ink jet printing apparatus.

Summary

The rejection of claims 1-4 under 35 U.S.C. § 102(b) as anticipated by Anderson is sustained.

The rejection of claims 5-10 under 35 U.S.C. § 103(a) as being unpatentable over Anderson is sustained as to claims 5 and 10 and reversed as to claims 6-9.

The rejection of claims 11-13 under 35 U.S.C. § 103(a) as being unpatentable over Anderson in view of Yokono is sustained.

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

STANLEY M. URYNOWICZ, JR. Administrative Patent Judge	)	
PARSHOTAM S. LALL Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
HOWARD B. BLANKENSHIP Administrative Patent Judge	)	

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