UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BOB OVERTON and LING LI

Appeal 2007-1008
Application 10/208,861
Technology Center 3700

Decided: July 16, 2007

Before WILLIAM F. PATE III, TERRY J. OWENS, and
MURRIEL E. CRAWFORD, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

This appeal involves claims 1 to 5 and 8 to 38, the only claims pending in this application. We have jurisdiction over the appeal pursuant to 35 U.S.C. §§ 6(b) and 134.

STATEMENT OF CASE

The claims are directed to apparatus for curing a coated fiber. Claim 1 is illustrative:

> 1. An apparatus for curing a coated fiber, comprising:
>
> a first coating curing stage which partially cures a first layer of a coating of a fiber passing through said first coating curing stage;
>
> a second coating curing stage located on line and downstream of said first coating curing stage to further cure said first layer of said coating after said fiber exits said first coating curing stage, wherein the first and second coating curing stages are spaced apart such that the time it takes for said fiber to pass from an exit of said first coating curing stage to an entrance of said second coating curing stage is at least 40 msec;
>
> a coater located downstream of said second coating curing stage to provide a second coating layer onto said fiber,
>
> a third coating curing stage which partially cures said second coating layer; and
>
> a fourth coating curing stage, located on-line and downstream of said third coating curing stage which further cures said second coating layer after said fiber exits said third coating curing stage,
>
> wherein said third and fourth coating curing stages are spaced apart such that the time it takes for said fiber to pass from an exit of said third coating curing stage to an entrance of said fourth coating curing stage is at least 40 msec.

The Examiner relies on the following prior art references to show unpatentability:

Mensah	US 4,636,405	Jan. 13, 1987
Shaw	US 6,218,004	Apr. 17, 2001
Krauss	EP 0 519 300 A1	Dec. 23, 1992

The rejections as presented by the Examiner are as follows:

1. Claims 1 to 3, 9 to 10 and 26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mensah.

2. Claims 4, 5, 8 and 34 to 38 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Mensah in view of Krauss.

3. Claims 1 to 3, 9 to 10 and 26 are rejected under 35 U.S.C § 103(a) as unpatentable over Shaw.

4. Claims 4, 5, 8, and 34 to 38 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaw in view of Krauss.

Appellants contend that Mensah does not discloses or suggests a second coating curing stage of the first layer on a fiber downstream of the first coating curing stage of a fiber. Appellants further contend that Krauss does not cure this deficiency of Mensah.

Appellants contend that Shaw does not disclose an apparatus for curing a coated fiber and that Krauss does not cure this deficiency.

ISSUE

The issue in this case is whether the Examiner erred in finding that the prior art discloses partially curing a first layer of coating on a fiber at a first coating/curing stage and further curing the first layer of coating on the fiber at a second coating/curing stage.

FINDINGS OF FACT

Appellants claim an apparatus for curing a coated fiber including a first coating curing stage which partially cures a first layer of the coating of the fiber and a second coating curing stage located downstream from the first coating curing stage to further cure the first layer of the coating. The time between the first coating curing stage and the entrance to the second coating curing stage is at least 40 msec. Appellant discloses that optimal curing of the first layer of coating is achieved by the recited time delay between the first and second coating curing stage of the first layer of coating (Specification p. 13). A second layer of coating is applied by a coater downstream of the second coating curing stage of the first layer of coating.

Mensah discloses an apparatus for curing a coated fiber in which a fiber is coated by a coater 18 and proceeds to a coating curing stage 20 downstream of coater 18 (Figure 1). The cured fiber receives a second coating by secondary coater 22 and then proceeds to a second coating curing stage 23. Mensah does not disclose partial curing of a first layer of coating or a second curing the first layer. Rather, the first layer of coating in Mensah is cured only once and completely at a first coating curing stage 20.

Krauss discloses an apparatus for coating a flat workpiece. Krauss does not relate to a coating of an optical fiber. The flat workpiece in Krauss passes to a first coating stage to a first curing stage to a second coating stage and then a second curing stage. The coating applied in the first coating stage is not partially cured in the first coating curing stage and is not cured a second time before the second coating is applied (Abstract).

Shaw discloses an apparatus for coating sheet material. Shaw does not relate to the coating of an optical fiber. The sheet material is coated by primary coater 40 and this first layer of coating is cured by at first curing coating stage 44. A second coating is applied at coater 46 and this second coating is cured at second coating curing station 48 (Figure 6A; col. 10, ll. 47 to 66). Shaw does not disclose that the first layer of coating of the sheet material is partially cured at the first coating curing station and cured again at the second coating curing station. Rather, a second coating applied by second coater 46 is cured in the second coating curing station.

DISCUSSION

We will not sustain any rejection of the Examiner because none of the references applied disclose, or would have rendered obvious to one of ordinary skill in the art, partially curing a first layer of coating on an optical fiber at a first coating curing stage and a second curing of the first layer of coating at a second coating curing stage.

In addition to the above deficiency, Kraus and Shaw do not relate to coating of an optical fiber at all.

The decision of the Examiner is reversed.

REVERSED

vsh

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