UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FREDERICK PAUL BENNING,
JAMES A. HAGAN, STEVEN L. MAYNARD,
DAVID C. PAURUS, DOUGLAS H. PILTINGSRUD
AND JON EDWARD PODOLSKE

Appeal 2008-0974
Application 11/008,806
Technology Center 1700

Decided: February 14, 2008

Before EDWARD C. KIMLIN, CHARLES F. WARREN, and
PETER F. KRATZ, *Administrative Patent Judges*.

KIMLIN*, Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 14-16 and 18-25. Claim 14 is illustrative:

14. A process for superfinishing a surface of a substrate, the process comprising the steps of:

applying a self-cleaning colloidal slurry to the surface of the substrate, the self-cleaning colloidal slurry comprising

a carrying fluid,

colloidal particles,

etchant for etching the substrate,

a surfactant precipitated onto a surface of at least one of the substrate and the colloidal particles, the surfactant having a hydrophobic section that forms a steric hindrance barrier between the substrate and the colloidal particles,

wherein the substrate is selected from a group consisting of a glass disk substrate, a ceramic disk substrate, and a glass-ceramic disk substrate for use in a disk drive data storage device;

mechanically rubbing the surface of the substrate with a pad while contacting the surface of the substrate with the self-cleaning colloidal slurry.

The Examiner relies upon the following references as evidence of obviousness:

Roberts	5,723,181	Mar. 3, 1998
Burton	6,083,838	Jul. 4, 2000
Hartog	6,236,542 B1	May 22, 2001
Kuroda	6,268,979 B1	Jul. 31, 2001
McCaffrey	US 2003/0092362 A1	May. 15, 2003

The present application is related to copending application US Serial No. 09/976,167. The copending application is also on appeal and currently before us (Appeal No. 2008-0889). The present and copending appeals will be decided concurrently.

The essential difference between the present application and the copending application is that the instant claims on appeal are directed to a

process for superfinishing a glass disk substrate or ceramic disk substrate with a colloidal slurry whereas the claims in the copending application are directed to a composition comprising the colloidal slurry.

Appealed claims 14-16 and 18-21 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hartog in view of Roberts. Claims 22 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hartog in view of Kuroda and Burton. Also, claims 23 and 25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hartog in view of Kuroda, Burton and McCaffrey.

We have carefully considered the respective positions advanced by Appellants and the Examiner. As a result we find that the Examiner's rejections are not sustainable.

We will not sustain the Examiner's rejection of claims 14-16 and 18-21 over the combined teachings of Hartog and Roberts for essentially those reasons articulated in our decision in the copending appeal. Roberts, being directed to a process for hydrophilizing a surface such as synthetic fiber, would have provided no teaching or suggestion of modifying the process of Hartog for chemical and mechanical finishing of a substrate. The processes of Hartog and Roberts are not sufficiently related so that one of ordinary skill in the art would have found it obvious that the surfactant in Robert's composition would have any utility in the finishing composition of Hartog.

We will also not sustain the rejection of claims 22 and 24 over the combined teachings of Hartog, Kuroda, and Burton. In the copending appeal we found that one of ordinary skill in the art would have considered it obvious to add the surfactant of Burton to the processing composition of Hartog because both references are directed to the treatment of a metal

substrate such as titanium. However, the claims in the present case define a process of superfinishing a glass or ceramic disk substrate such as aluminosilicate glass. Hence, although Hartog also teaches the finishing of such glass substrates, there would have been no reason for one of ordinary skill in the art to use the surfactant of Burton's metal-treating composition in the compositions of Hartog that finish glass substrates. The purpose of Burton's surfactant-containing composition is to inhibit the oxidation erosion of a metal substrate which, of course, is not in effect during the processes of Hartog that treat glass substrates. The Examiner is correct in stating that "one of ordinary skill in the art would have been motivated to introduce Burton et al's surfactant into Hartog's polishing composition for inhibiting metal erosion" (Ans. 8, fourth para.). However, such motivation is not present when considering Hartog's process for treating glass substrates, which is the prior art process relied upon for rejecting the present claims on appeal.

The citation of McCaffrey for the additional rejection of claims 23 and 25 does not remedy the deficiency of Burton discussed above with respect to the claimed process for treating a glass or ceramic substrate.

In conclusion, based on the foregoing, we are constrained to reverse the Examiner rejections.

REVERSED

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