UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DUSTIN ALAN COCHRAN

Appeal 2007-0685
Application 10/242,336
Technology Center 1700

Decided: March 28, 2007

Before EDWARD C. KIMLIN, BRADLEY R. GARRIS, and CHARLES F. WARREN, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 9-24. Claim 9 is illustrative:

9. An apparatus for forming grooves within a journal bearing, comprising:

an electrode having a main body and an extension extending at an end of the main body, the extension having an outside diameter sized to fit within an inside diameter of the journal bearing to form a fluid gap

therebetween, and having at least one surface with a groove pattern to electrochemically etch an inner surface of the journal bearing; and

a fluidstatic bearing comprising a fluid inlet to receive a fluid, an electrolyte inlet to receive an electrolyte into the fluid gap to thereby center the extension of the electrode within the journal bearing, and a longitudinal opening sized to hold the main body,

the fluidstatic bearing being configured to support the electrode in a manner thereby resulting in a gap between the main body and an inner surface of the fluidstatic bearing.

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

Lehmann	US 3,588,196	Jun. 28, 1971
Habel	US 5,616,259	Apr. 1, 1997
MacLeod	US 6,267,869 B1	Jul. 31, 2001

Appellant's claimed invention is directed to an apparatus for forming grooves within a journal bearing (200) comprising an electrode having a groove pattern (324) which allows for the pattern to be electrochemically etched into an inner surface of the journal bearing. The electrode has a main body that is positioned within a fluidstatic bearing (306) and an extension that fits within the journal bearing. An electrolyte inlet (321) is positioned between the fluidstatic bearing (306) and the journal bearing (200) for receiving an electrolyte that fills a fluid gap (322) between the patterned extension of the electrode and the inner surface of the journal bearing.

Appealed claims 9, 10, 16-18, and 21-24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over MacLeod in view of Lehmann. Claims 11-15, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the stated combination of references further in view of Habel.

Appellant has not separately argued any particular claim on appeal. Accordingly, the groups of claims separately rejected by the Examiner stand or fall together. In addition, we note that Appellant has not substantively addressed the § 103 rejection of claims 11-15, 19, and 20 over the combination of MacLeod, Lehmann, and Habel, apparently relying solely upon the asserted deficiency in the Examiner's § 103 rejection of independent claims 9 and 16.

We have thoroughly reviewed each of Appellant's arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejections for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

MacLeod, like Appellant, discloses an apparatus comprising a grooved, patterned electrode for electrochemically etching the grooved pattern on an inner surface of a bearing wherein the electrode has the presently claimed main body and an extension extending at the end of the

main body. As appreciated by the Examiner, MacLeod does not disclose Appellant's fluidstatic bearing comprising a fluid inlet which is configured to stably support the electrode. However, we fully concur with the Examiner that Lehmann establishes the obviousness of employing such a fluidstatic bearing to support an electrode in the electromachining of a workpiece. Accordingly, we find no error in the Examiner's legal conclusion that it would have been obvious for one of ordinary skill in the art to utilize a fluidstatic bearing of the type disclosed by Lehmann to support the electrode of MacLeod.

The sole argument advanced by Appellant is that since "MacLeod does *not* disclose a fluidstatic bearing, then how can MacLeod disclose an electrolyte inlet ***of*** a fluidstatic bearing as claim recites 'a fluidstatic bearing comprising . . . an electrolyte inlet?'" (sentence bridging Br. 8-9). However, as explained by the Examiner, the claimed electrolyte inlet (321), as opposed to fluid inlet (308) of the fluidstatic bearing, is depicted in Appellant's drawings as an opening between workpiece (200) and the bearing (306). Hence, we agree with the Examiner that MacLeod necessarily has such an opening or inlet for introducing the electrolyte. As set forth by the Examiner, MacLeod "does not seal the top surface of the workpiece" (Answer 9). Moreover, inasmuch as we find that it would have been obvious for one of ordinary skill in the art to incorporate a fluidstatic bearing in the apparatus of MacLeod to stabilize the electrode, we find that it would have been a matter of obviousness for one of ordinary skill in the art to

locate the inlet for the electrolyte between the fluidstatic bearing and the open top surface of the workpiece.

As a final point, we note that Appellant bases no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the prima facie case of obviousness established by the Examiner.

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims 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) (2006).

AFFIRMED

clj

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