

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SUNGMIN CHO, PETER REIMER, and VINCENT SEIDL

Appeal 2006-2792
Application 10/198,688
Technology Center 3600

Decided: January 24, 2007

Before MURRIEL E. CRAWFORD, ROBERT E. NAPPI and LINDA E. HORNER, *Administrative Patent Judges*.
HORNER, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 USC § 134(a) from the Examiner's final rejection of claims 1-9, 11-14, 16-18, and 34, all of the claims pending in the application. Claims 10, 15, and 19-33 have been canceled.

We REVERSE.

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BACKGROUND

The Appellants' invention relates to a method for preventing substrate damage in a factory interface (Specification 2). Claim 1, reproduced below, is representative of the subject matter on appeal. A copy of all of the claims can be found in the appendix to the Appellants' Brief.

1. A method for preventing substrate damage in a factory interface comprising:

receiving an indicia of potential substrate damage; and

automatically closing a pod door to a pod to prevent substrates from moving out of a substrate storage cassette positioned in the pod in response to the received indicia.

The Examiner relies upon the following as evidence of unpatentability:

Aggarwal	US 6,042,324	Mar. 28, 2000
Nakazawa	US 6,297,746 B1	Oct. 02, 2001
Lewis	US 6,427,096 B1	Jul. 30, 2002

The following rejections are before us for review.

1. Claims 1-4, 6-9, 11-14, 16, and 18 stand rejected under 35 USC § 103(a) as being unpatentable over Lewis in view of Aggarwal.
2. Claims 5 and 17 stand rejected as being unpatentable over Lewis in view of Aggarwal and further in view of Nakazawa.
3. Claim 34 stands rejected under 35 USC § 103(a) as being unpatentable over Lewis in view of Nakazawa and further in view of Aggarwal.

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Rather than reiterate in detail the conflicting viewpoints advanced by the Examiner and the Appellants regarding this appeal, we make reference to the final Office Action (mailed October 14, 2004), the Advisory Action (mailed December 23, 2004), and the Examiner's Answer (mailed March 30, 2006) for the Examiner's complete reasoning in support of the rejections and to the Appellants' Brief (filed July 6, 2005) and Reply Brief (filed November 21, 2005) for the Appellants' arguments.

OPINION

In reaching our decision in this appeal, we have carefully considered the Appellants' specification and claims, the applied prior art, and the respective positions articulated by the Appellants and the Examiner. As a consequence of our review, we make the determinations that follow.

Claims 1-4, 6-9, 11-14, 16, and 18 stand rejected under 35 USC § 103(a) as being unpatentable over Lewis in view of Aggarwal. The Examiner determined that Lewis teaches a method of preventing damage to substrates by sensing misalignment of the substrates or by sensing a seismic event through the use of an accelerometer and pushing the substrates back into the cassette. The Examiner admits that Lewis does not teach pushing the substrates back into the cassette by closing the door of the pod (Final Office Action 2).

The Examiner relied on Aggarwal to teach a method of moving a pod door in a first direction and then laterally in a second direction to close the pod. The

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Examiner found that manipulating the door in this manner would inherently prevent damage to substrates in the pod. As such, the Examiner concluded

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the process of Lewis et al by closing the door of the pod to push the substrates back into the cassette and thus prevent damage thereto, as Aggarwal et al show that it is well known to close a pod door in a manner that would prevent damage to the substrates, and since this would have the added benefit of a closed pod which would protect the substrates against damage or contamination caused by the earthquake or misalignment (Final Office Action 2-3).

We agree with the Appellants, as argued on page 5 of their Brief, that there is no suggestion or motivation in the prior art that would have led one having ordinary skill in the art at the time of the invention to have used the method of Aggarwal in the system of Lewis to prevent damage to the substrates in the cassette. Lewis teaches only two methods, i.e., tilting or using a robotic arm, for returning the substrates to the cassettes after sensing a disturbance (Lewis, col. 21, l. 65 – col. 22, l. 5). Lewis also teaches that if the motion sensor detects movement of the wafers sufficient to displace them, the controller may terminate further operation of the interface apparatus to allow for human intervention (Lewis, col. 22, ll. 5-11). We find that Lewis does not teach or suggest closing the pod door in response to a sensed indication of potential substrate damage to prevent the substrates from moving out of the cassette.

Aggarwal similarly does not teach or suggest using a pod door to prevent substrate damage. Aggarwal teaches using a single horizontal actuator and a single

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vertical actuator to simultaneously open the pod doors of two stacked front-opening unified pods (20, 30) (Aggarwal, col. 3, l. 65 – col. 4, l. 2). Aggarwal does not teach or suggest using its pods doors to prevent damage to the substrates.

The Examiner has failed to provide a clear articulation of the motivation that would have led one having ordinary skill in the art to have used the horizontal and vertical actuators of Aggarwal in the system of Lewis to close a pod door in response to receiving an indicia of potential substrate damage. We have reviewed these prior art references and find that neither reference recognizes that a pod door is suitable or could even be used to prevent substrate damage. Thus, we find no motivation to modify Lewis to close the pod door in response to received indicia of potential substrate damage. As such, we do not sustain the Examiner's rejection of claims 1-4, 6-9, 11-14, 16, and 18 under 35 USC § 103(a) as being unpatentable over Lewis in view of Aggarwal.

The Examiner's rejection of claims 5, 17, and 34 relies on the combined teachings of Lewis, Aggarwal, and Nakazawa. In particular, the Examiner relies on Nakazawa to teach the general concept of a seismic warning network (Answer 5). We agree with the Appellants that Nakazawa fails to cure the deficiencies of Lewis and Aggarwal, because it does not teach or suggest closing a pod door in response to a signal from a seismic warning network (Brief 7). Rather, Nakazawa teaches automatically powering off electrical devices in response to signals from a seismic warning network (Nakazawa, col. 18, ll. 56-61). As such, for these reasons and the reasons provided *supra* regarding a lack of motivation to combine Lewis and Aggarwal, we do not sustain the Examiner's rejections of claims 5, 17, and 34.

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CONCLUSION

To summarize, the decision of the Examiner to reject claims 1-9, 11-14, 16-18, and 34 is reversed.

REVERSED

MURRIEL E. CRAWFORD)
Administrative Patent Judge)
ROBERT E. NAPPI) BOARD OF PATENT
Administrative Patent Judge) APPEALS
LINDA E. HORNER) AND
Administrative Patent Judge) INTERFERENCES

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