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 JAMES D. PYLANT and SCOTT C. BRADLEY

Appeal No. 2006-1377
Application No. 10/621,031
Technology Center 3700

Decided: August 23, 2006

Before OWENS, BAHR and LEVY, *Administrative Patent Judges*.

BAHR, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal from the examiner's rejection of claims 15-22. Claims 15, 19 and 22 were amended subsequent to the final rejection (mailed May 26, 2005), in an amendment filed June 10, 2005, thereby overcoming the rejection under 35 U.S.C. § 112, second paragraph.

We REVERSE.

BACKGROUND

The appellants' invention relates to a method of storing a plurality of wafer assemblies, which may be either wafers or wafers secured to wafer frames, in a container, wherein the wafer assemblies are provided with at least one alignment artifact that engages at least one alignment artifact disposed within the container. Claims 15 and 19 are illustrative of the claimed invention and read as follows:

> 15. A method of storing a plurality of wafers in a stack within a wafer storage container, the method comprising the steps of:
>
> placing each wafer of said plurality of wafers on a corresponding wafer frame to obtain a plurality of wafer assemblies, each wafer frame including at least one alignment artifact disposed thereon, the step of placing resulting in adhesion between each wafer and corresponding wafer frame sufficient to prevent substantial movement of the wafer relative to the corresponding wafer frame;
>
> sequentially placing each wafer assembly into a wafer storage chamber to form a stack wherein each wafer assembly has a known orientation that is visible when the chamber is uncovered, the step of sequentially placing including the step of engagement of the at least one alignment artifact disposed on each wafer frame with at least one orientation artifact disposed within the wafer storage container, thereby orienting each wafer frame in the wafer storage container and preventing substantial rotational movement of each wafer frame and the wafer disposed thereon within the storage chamber; and

covering the wafer storage chamber with a cover to fully enclose the stack.

19. A method of storing a stack of wafers in a wafer storage container, the method comprising the steps of:

providing a plurality of wafer elements, each wafer element having at least one alignment artifact on a wafer frame;

providing a container that conforms to the outer dimension of the wafer elements, wherein the container includes at least one orientation artifact that is capable of engagement with an alignment artifact of each wafer element;

placing the wafer elements in the container so that the alignment artifact of each wafer element mates with at least one orientation artifact of the container.

The examiner relies upon the following as evidence of unpatentability:

Takeuchi	5,238,876	Aug. 24, 1993
Kawada	6,119,865	Sep. 19, 2000

The following rejection is before us for review.

Claims 15-22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Kawada in view of Takeuchi.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding this appeal, we make reference to the examiner's answer (mailed January 20, 2006) for the examiner's complete reasoning in support of the rejection and to the appellants' brief (filed August 29, 2005) and reply brief (filed February 2, 2006) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art, and to the respective positions articulated by the appellants and the examiner. For the following reasons, we cannot sustain the rejection.

Appellants' independent claims 15 and 19 each require at least one alignment artifact disposed on a wafer assembly or wafer element and at least one orientation artifact disposed within a wafer storage container. Claim 15 further recites a step of engagement of the at least one alignment artifact on the wafer assembly with the at least one orientation artifact disposed within the container and claim 19 recites a step of placing the wafer element in the container so that the alignment artifact of each wafer element mates with at least one orientation artifact of the container. Neither of the applied references, alone or in combination, teaches or suggests such a step.

Kawada discloses a chamber 15 having a plurality of projections disposed therewithin for accommodating a plurality of wafer assemblies 1, each wafer assembly including a circular metallic wafer frame 2 having a wafer product 4 adhered thereto by an adhesive sheet 3. Kawada's wafer assembly lacks an alignment artifact as called for in claims 15 and 19. Takeuchi discloses a wafer assembly comprising a ring frame 11 having a wafer 1 adhered thereto by an ultraviolet sensitive tape 10. Takeuchi's ring frame 11 is provided with a locating portion 11a by means of which it is oriented in the rotational direction. A chuck 12 grasps and fixes the frame ring 11 in a fixed position. A table 2 is raised relative to the chuck 12 or the frame ring 11 is depressed relative to the table 2, stretching the tape 10 to permit a blade 3 to scribe lines in the wafer 1.

Even assuming a frame assembly as taught by Takeuchi, comprising a ring frame provided with a locating portion, were stored in the accommodating chamber 15 of Kawada, or Kawada's wafer frame were modified to provide a location portion as taught by Takeuchi, neither Kawada nor Takeuchi provides any teaching or suggestion to engage the locating portion with one of the projections 16 of Kawada to thereby orient the wafer assembly or frame therein, as called for in claim 15, or to place the wafer assemblies in the chamber 15 of Kawada so that the locating portion of the wafer element mates with any of the projections, as called for in claim 19. The achievement of such engagement or mating requires both appropriate relative sizing and a particular alignment or orientation of the wafer assemblies or elements as they are placed within the chamber and this is neither

taught nor suggested in either of the references. The rejection of independent claims 15 and 19, as well as claims 16-18 and 20-22 that depend therefrom, is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 15-22 is REVERSED.

REVERSED

TERRY J. OWENS Administrative Patent Judge	)	
JENNIFER D. BAHR Administrative Patent Judge	)	BOARD OF PATENT APPEALS AND INTERFERENCES
STUART S. LEVY Administrative Patent Judge	)	

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