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| Matthew K. Hillman Cymer, Inc. Legal Dept., MS/4-2C 17075 Thornmint Court San Diego, CA 92127-2413 | | | VAN ROY, TOD THOMAS | |
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOHN T. MELCHIOR, RICHARD C. UJAZDOWSKI, and
JAMES K. HOWEY

Appeal 2010-007278¹
Application 11/488,879
Technology Center 2800

Before JEAN R. HOMERE, BRYAN F. MOORE, and MICHAEL J.
STRAUSS, *Administrative Patent Judges*.

HOMERE, *Administrative Patent Judge*.

DECISION ON APPEAL

¹ The real party in interest is Cymer, Inc. (App. Br. 2.)

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1-20. (App. Br. 2.) We have jurisdiction under 35 U.S.C. § 6(b).

We affirm.

Appellants' Invention

Appellants invented a window assembly system (14a) containing a pressurized laser discharge chamber (10) capable of withstanding a reasonable overpressure without leaking in order to transmit the laser light without distortion. In particular, the chamber includes (i) a housing (16b) formed with a recess (32), (ii) an optic (20) having a first side (42) exposed to chamber pressure, and opposed to a second side (38), and (iii) a compliant member (24) disposed in recess spacing the second side (38) of the optic (20) from the housing under chamber pressures, and wherein the compliant member is compressible to allow the optic to mechanically abut the housing during chamber overpressure. (Spec. 2, ll. 23-30, Fig. 3A.)

Illustrative Claim

Independent claim 1 further illustrates the invention as follows:

1. A window assembly for a pressurized laser discharge chamber, the assembly comprising:
 - a housing formed with a recess;
 - an optic having a first side exposed to chamber pressure and an opposed second side;
 - a compliant member partially disposed in said recess spacing the second side of the optic from the housing under operating chamber pressures and compressible to allow the optic to mechanically abut the housing during a chamber overpressure.

Prior Art Relied Upon

The Examiner relied upon the following prior art as evidence of unpatentability:

| | | |
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| Biet | US 3,715,684 | Feb. 6, 1973 |
| Terada | US 5,197,078 | Mar. 23, 1993 |
| Miller | US 6,069,909 | May 30, 2000 |
| Merriam-Webster's Collegiate Dictionary (10 th ed., pg. 236) "compliant" | | |

Rejections on Appeal

The Examiner rejected the claims on appeal as follows:

1. Claims 1-4, 7, 8, 11, 12, and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Terada and Miller.
2. Claims 5, 6, 9, 10, 13, and 15-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the combination of Terada, Miller, and Biet.

ANALYSIS

We consider Appellants' arguments *seriatim* as they are presented in the principal Brief, pages 5-15.

Dispositive Issue : Have Appellants shown that the Examiner erred in finding that the combination of Terada and Miller teaches or suggests *a compliant member disposed in a recess spacing the second side of an optic from the housing containing the recess, and the compliant member being*

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compressible to allow the optic to mechanically abut the housing during chamber pressure, as recited claim 1?

Appellants argue that the combination of Terada and Miller does not teach or suggest the disputed limitations emphasized above. (App. Br. 10-15.) In particular, Appellants argue that even though Miller discloses O-rings in a window mount assembly, the O-rings merely function as seals, and not as a compressible element that spaces an optic from the housing under operating chamber pressures, and that allows the optic to abut the housing during chamber overpressure. (App. Br. 7-11.) Therefore, Appellants submit that Miller does not cure the noted deficiencies of Terada. (*Id.*)

In response, the Examiner finds that because Miller discloses an O-ring that, under pressure, would seal a chamber to prevent the laser gas therein from escaping, the combination of Terada and Miller teaches or suggests the disputed limitations, as claimed. (Ans. 7-9.)

On the record before us, we agree with the Examiner's findings, and ultimate conclusion of obviousness. Terada discloses a laser chamber body (1) having gas sealed therein (col. 3, ll. 25-31) wherein the laser body includes a flange (3d) upon which a transparent laser window (2) mounted via a ring (3e). (Col. 4, ll. 3-5.) Next, Miller discloses pressing upon an O-ring to form a pressure tight seal between a laser window mount bolted to an end wall so as to withstand high pressure. (Col. 3, ll. 43-47, col. 6, ll. 1-7.) We find that because Miller's O-ring is disposed between the laser mount and the wall, it serves to separate the wall from the window mount. Further, we note that Appellants have left unrebutted the Examiner's finding that

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because O-ring serves to seal the window to the mount when the O-ring is pressured, Miller also discloses that the window mount abuts the wall, albeit indirectly, when the O-ring is pressured. (Ans. 8.) Therefore, we find on this record that replacing Terada's ring with Miller's O-ring, would predictably result in the O-ring serving as the compliant member between the laser window and the laser body thereby spacing the laser window from the laser body, as well as to allow them to indirectly abut each other when pressure is applied upon the compressible O-ring. We are therefore satisfied that the combination of Terada and Miller teaches or suggest the disputed limitations. It follows that Appellants have not shown error in the Examiner's rejection of claim 1 as being unpatentable over the proffered combination.

Because Appellants reiterate for claims 2-20 the arguments presented for patentability of claim 1 above, and we find no deficiencies in the combination of Terada and Miller for Biet to cure, claims 2-20 fall together with claim 1 as set forth above. *See* 37 C.F.R. § 1.37(c)(1)(vii).

DECISION

We affirm the Examiner's decision to reject claims 1-20 as set forth above.

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).

AFFIRMED

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