

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

Paper No. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES R. SMITH

Appeal No. 2003-0574
Application No. 09/568,616

ON BRIEF

Before KIMLIN, JEFFREY T. SMITH and MOORE, *Administrative Patent Judges*.
JEFFREY T. SMITH, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicant appeals the decision of the Primary Examiner finally rejecting claims 11-17 and 19-27.^{1,2} We have jurisdiction under 35 U.S.C. § 134.

¹ In rendering our decision, we have considered Appellant's arguments presented in the Brief, filed July 31, 2002.

² The after final amendment to claim 25 has been entered by the Examiner. (Answer, p. 2).

CITED PRIOR ART

As evidence of unpatentability, the Examiner relies on the following references:

Murray et al. (Murray)	4,698,247	Oct. 06, 1987
Miller	5,387,451	Feb. 07, 1995
Smith	6,203,924	Mar. 20, 2001

The Examiner has rejected claims 13, 14, 20, 22, 23 and 27 as unpatentable under 35 U.S.C. § 112, second paragraph, as being indefinite; claims 11 to 14, 19 and 21 to 23 as unpatentable under 35 U.S.C. § 102 (b) as anticipated by Murray; claims 11, 12, 15-17, 19-21 and 24-26 as unpatentable under 35 U.S.C. § 103(a) as obvious over Miller; and claims 13, 14, 20, 22, 23 and 27 as unpatentable under the judicially created doctrine of obviousness-type double patenting over claims 1 to 9 of Smith. (Answer, pp. 4 to 7).

Rather than reiterate the conflicting viewpoints advanced by the Examiner and Appellant concerning the above-noted rejections, we refer to the Answer and the Brief.

DISCUSSION

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the Examiner and Appellant in support of their respective positions. This review leads us to conclude that the Examiner's §§ 112, 102 and double patenting rejections are not well founded. We also conclude that the

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Examiner's § 103 rejection of claims 13, 14, 20, 22, 23 and 27 is not well founded.

However, we affirm the Examiner's § 103 rejection of claims 11, 12, 15-17, 19, 21, 24-26. Our reasons appear below.

Appellant's invention is directed to a lightweight flywheel containment composed of a combination of three layers of various material which absorb the energy of a flywheel during structural failure. The various layers of material act as a vacuum barrier, momentum spreader, energy absorber, and reaction plate. (Specification, p. 5). Claim 11, which is representative of the claimed invention, appears below:

11. A lightweight containment for flywheels consisting of:

three radially positioned layers of material constructed to enclose a flywheel;

each of said layers of material being in contact with an adjacent layer and composed of a different material.

I. The Rejection under Section 112, ¶2

The Examiner must demonstrate that the claims do not "set out and circumscribe a particular area with a **reasonable** degree of precision and particularity." *In re Moore*, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971), emphasis added. The purpose of the second paragraph of Section 112 is to basically insure an **adequate** notification of

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the metes and bounds of what is being claimed. *See In re Hammack*, 427 F.2d 1378, 1382, 166 USPQ 204, 208 (CCPA 1970).

The Examiner has rejected claims 13, 14, 20, 22, 23 and 27 under 35 U.S.C. § 112, second paragraph as indefinite.

According to the Examiner, the claims are indefinite because “[i]t is not clear whether the claims are directed to a containment structure per se, as stated in the preamble of claim 13, or to the combination of a containment structure and flywheel as implied in the last two lines of claim 13 where the impedance matching material is defined as being between the flywheel and the three containment layers. Similarly, claim 22 implies that a flywheel is being claimed in combination with the containment structure in view of the term ‘and an associated flywheel’ yet the preamble is directed to a containment structure per se.” (Final Rejection, paper no. 18, p. 2).

We determine that the Examiner has not met the initial burden by failing to present convincing reasons why one of ordinary skill in the art would not be appraised of the scope of the claims on appeal. The subject matter of claims 13 and 22 is directed to a containment structure. We find that the disputed language of claims 13 and 22 defines the location of a layer that has impedance matching characteristics relative to the flywheel that is being contained by the claimed invention and not the flywheel *per se*. We

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therefore conclude that the claims provide adequate notification of the metes and bounds of the claimed subject matter.

For the foregoing reasons and those set forth in the Brief, the rejection under 35 U.S.C. § 112, second paragraph, is reversed.

II. The Rejection under Section 102

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the Examiner and Appellant in support of their respective positions. This review leads us to conclude that the rejection of claims 1, 3, 5 to 7 and 9 to 20 are not well founded. Our reasons appear below. We will limit our discussion to the independent claims, i.e., claims 11, 13 and 21.

Murray describes a multiple layer packaging sheet material capable of holding caynoacrylate-type products and having barrier properties to the passage of matter through the sheet material. (Col. 1). According to the Examiner, “Figures 1 and 2 show three and four layer structures respectively with all the layers in contact with adjacent layers and being formed of different materials.” (Final Rejection, paper no. 18, p. 3).

Anticipation under § 102 requires that the identical invention that is claimed was previously known to others and thus is not new. *Scripps Clinic & Research Foundation v. Genentech, Inc.*, 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991);

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Titanium Metals Corp. of Am. v. Banner, 778 F.2d 775, 780, 227 USPQ 773, 777-78 (Fed. Cir. 1985); *Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). Murray does not disclose his invention is constructed for containment of flywheels. The Examiner has therefore not adequately disclosed why it is believed that a sheet material of Murray is the same as the claimed containment for a flywheel of claims 11, 13 and 21. Consequently, the rejection under 35 U.S.C. § 102 is reversed.

III. The Rejection under Section 103

The Examiner rejected claims 11, 12, 15-17, 19-21 and 24-26 as unpatentable under 35 U.S.C. § 103(a) as obvious over Miller.

Appellant states that the claims on appeal should not stand or fall together. (Brief, p. 6). We will consider the claims separately only to the extent that separate arguments are of record in this appeal. *See In re McDaniel*, 293 F.3d 1379, 1383, 63 USPQ2d 1462, 1465 (Fed. Cir. 2002) (“If the brief fails to meet either requirement, the Board is free to select a single claim from each group of claims subject to a common ground of rejection as representative of all claims in that group and to decide the appeal of that rejection based solely on the selected representative claim.”).

We have carefully reviewed the claims, specification and applied prior art, including all of the arguments advanced by both the Examiner and Appellant in support of their respective positions.

Miller describes a lightweight, flywheel containment device that captures dust and dissipates a significant amount of energy if the flywheel fails. (Col. 1). Miller's flywheel containment device 2, shown in figures 1-3, includes a flywheel 6 and an annular shaped honeycomb structure 8. The honeycomb structure 8 enables the flywheel containment device 2 to capture dust and dissipate energy into material strain rather than heat if the flywheel 6 fails. (Col. 2, ll. 18 to 27). Miller discloses the flywheel 6 may be made of any material conventionally used in flywheel fabrication including a resin matrix composite. The honeycomb structure 8 includes an annular shaped honeycomb layer 10 having a plurality of pores 11 that are open on the inner diameter of the honeycomb layer 10 to trap dust created if a small portion of the flywheel 6 fails. (Col. 2, ll. 39 to 46). The honeycomb layer 10 may be a deformable polymeric material or a metal such as steel, brass and aluminum. (Col. 2, l. 63 to col. 3, l. 2).

Miller discloses the honeycomb structure 8 may comprise an additional metal layer 12, such as steel, that may be positioned around the outer diameter of the honeycomb layer 10. (Col. 3, ll. 30 to 37). The metal layer 12 spreads the load of debris impacting

the honeycomb layer 10 to a second honeycomb layer 14. (Col. 3, ll. 37 to 40). The second honeycomb layer 14 is positioned around the metal layer 12. The second honeycomb layer 14 comprises a plurality of pores that absorb energy by deforming if the flywheel 6 fails. (Col. 3, ll. 49 to 51). The second honeycomb layer 14 may be a deformable polymeric material or an expanded metal such as aluminum, brass or steel. (Col. 3, ll. 64 to 67).

The device 2 also includes a containment vessel 18 for supporting the honeycomb structure 8. (Col. 4, ll. 25 to 29). The containment vessel 18 may be a composite or a metal such as steel. Miller discloses when the vessel is a composite, composites such as metal matrix composites are suitable, but resin matrix composites are preferred. (Col. 4, ll. 34 to 36).

Miller's containment device describes that the inner structural layer 12, the energy absorbing layer 14 and the outer structural layer 18 can be formed of different materials. We therefore conclude that the subject matter of claims 11, 12, 15-17, 19, 21, 24 and 25 would have been obvious to a person of ordinary skill in the art.

Miller discloses the containment vessel 18 should be constructed of materials which are sufficient to contain a blast such as resin composites and metals. (Col. 4, ll. 36 to 46). We therefore conclude that Miller would have rendered the subject matter of

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claim 26 obvious. Moreover, a person of ordinary skill in the art would have recognized that the containment vessel of Miller must have been capable of withstanding a blast and selected the appropriate resin composite and/or metal.

The specification discloses “[t]he impedance matching material layer 12 is optional and is composed of material that matches the mechanical impedance of fragments of the rotor 11, and is added to the containment structure 10 to reduce momentum transfer”. (Specification, p. 6).

Miller discloses the layers 12 and 14 are designed to reduce the impact to surrounding layers. However, Miller does not describe the various layers as being formed of an “impedance matching material” as required by claims 13, 14, 20, 22, 23 and 27. The Examiner has not presented arguments as to why a person of ordinary skill in the art would have chosen to match the impedance of the layers. Thus, the rejection of claims 13, 14, 20, 22, 23 and 27 is reversed.

IV. The Obviousness-type Double Patenting Rejection

The Examiner has rejected claims 13, 14, 20, 22, 23 and 27 under the judicially created doctrine of double patenting over claim 1 of U.S. Patent No. 6,203,924. The Examiner believes the claims are directed to essentially the same invention. (Final Rejection, paper no. 18, p. 2). We cannot sustain this rejection on this record.

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The Examiner's rejection is premised on the same basis presented in the rejection under section 112 discussed above. As we stated above, the subject matter of claims 13 and 22 is directed to a containment structure. The disputed language of claims 13 and 22 defines the location of a layer that has impedance matching characteristics relative to the flywheel that is being contained by the claimed invention.

The third sentence of 35 U.S.C. 121 prohibits the use of a patent issuing on an application with respect to which a requirement for restriction has been made as a reference against any divisional application, if the divisional application is filed before the issuance of the patent. The Examiner has not argued that the present application was not timely filed. Thus, we reverse the Examiner's rejection.

CONCLUSION

The Examiner's rejections of claims 13, 14, 20, 22, 23 and 27 under 35 U.S.C. § 112, second paragraph; claims 11 to 14, 19 and 21 to 23 under 35 U.S.C. § 102 (b) as anticipated by Murray; claims 13, 14, 20, 22, 23 and 27 under the judicially created doctrine of obviousness-type double patenting over claims 1 to 9 of Smith are reversed. We also reverse the Examiner's § 103 rejection of claims 13, 14, 20, 22, 23 and 27. However, we affirm the Examiner's § 103 rejection of claims 11, 12, 15-17, 19, 21, 24-26.

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Time for taking action

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a).

AFFIRMED-IN-PART

EDWARD C. KIMLIN
Administrative Patent Judge

JEFFREY T. SMITH
Administrative Patent Judge

JAMES T. MOORE
Administrative Patent Judge

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