

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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 RYAN C. SHIRK,
STEPHEN M. SANOCKI,
JOSEPH C. PEISERT,
ROGER L. LANGER,
LOYD R. HORNBACK III,
and
IAN R. HARDING

Appeal No. 2005-0067
Application No. 08/853,842

ON BRIEF

Before GARRIS, OWENS, and DELMENDO, Administrative Patent Judges.

DELMENDO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal under 35 U.S.C. § 134 (2004) from the examiner's final rejection of claims 8, 9, 18, and 24 through 29 (final Office action mailed Sep. 9, 2003) in

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the above-identified application. Claims 10 through 17 and 19 through 23, the only other pending claims, have been allowed. (Id. at 5.)

The subject matter on appeal relates to a pollution control device (claims 8, 24, 25, and 27) and to a preform insulating end cone suitable for disposition between inner and outer end cone housings in an inlet or outlet cone assembly of a pollution control device (claims 9, 18, 26, 28, and 29). Further details of this appealed subject matter are recited in representative claims 8 and 18 reproduced below:

8. A pollution control device comprising:
 - (a) a housing;
 - (b) a pollution control element positioned within the housing;
 - (c) an inlet and an outlet cone assembly for attaching exhaust pipes to the housing, each end cone assembly comprising an inner end cone housing and an outer end cone housing; and
 - (d) a preform insulating end cone disposed between the inner and outer end cone housings, said preform insulating end cone comprising:
 - (i) a cone shaped intumescent or non-intumescent sheet material having a plurality of slits enabling said sheet material to be cone shaped; and
 - (ii) a shape retaining element that is an adhesive tape in intimate contact with said sheet material, said shape retaining element enabling said sheet material to maintain a self-supporting cone shape when said

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preform insulating end cone is placed on a level surface prior to disposition of said preform insulating end cone between the inner and outer end cone housings.

18. A preform insulating end cone suitable for disposition between inner and outer end cone housings in an inlet or outlet cone assembly of a pollution control device, said preform insulating end cone comprising:

- (i) a cone shaped intumescent or non-intumescent sheet material having a first end and a second end; and
- (ii) a shape retaining element that is an adhesive tape in intimate contact with said sheet material to connect said first end and second end to impart a cone shape to said sheet material, said shape retaining element enabling said sheet material to maintain a self-supporting cone shape when said preform insulating end cone is placed on a level surface prior to disposition of said preform insulating end cone between the inner and outer end cone housings.

The examiner relies on the following prior art references as evidence of unpatentability:

Corn	5,332,609	Jul. 26, 1994
Kitamura et al.	JP 61-89916	May 08, 1986
	(JP '916)(published JP application)	
Brich	P 34 32 283.3	Mar. 13, 1986
	(DE '283)(published German application)	
Worner et al.	DE 3700070 A1	Jul. 14, 1988
	(DE '070)(published German application)	

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DE '283 describes a catalytic exhaust gas purification device comprising a porous, honeycomb-shaped monolithic ceramic body (3) with a catalytically effective surface coating, arranged in a metallic exterior housing (1) with front-sided, conical exhaust gas inlet and outlet pipes (2), wherein a thermally insulating resilient mat (preferably an expansion mat) (4) is placed between the exterior housing wall and the ceramic body (3) and a thermally insulating mat (5) is placed on the interior side of the exhaust gas inlet and outlet cones (2) and is covered by a high temperature resistant shielding plate (6). (Pages 1 and 9.)

Similarly, DE '070 discloses a device for the catalytic purification of automobile engine exhaust gases including a housing (2), at least one monolith (4), spacer mat (16), a conical transitional section (8), and an insulating mat (20) disposed between the inner surface of the transitional section (8) and an interior shell (12). (Pages 11-13 and Figure 1.)

Regarding the rejection of appealed claims 8, 9, 24, 25, 27, and 28, the examiner admits that neither DE '283 nor DE '070 discloses the "provision of...slits on the sheet material of the end cone." (Answer at 4.) Nevertheless, the examiner held (id. at 5):

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It would have been obvious to one having ordinary skill in the art to provide slits as taught by JP 61-089916 in the sheet material of the end cones of DE references on the basis of its suitability for the intended use as a matter of obvious design choice to achieve the improved winding of the mat as taught by the JP reference...

We cannot agree with this conclusion. As pointed out by the appellants (appeal brief filed Feb. 11, 2004, pages 20-21), JP '916 teaches the provision of seal mats with grooves to decrease excess compressive force on the honeycomb catalyst. (Pages 2-3.) Thus, if JP '916 and either DE '283 or DE '070 were to be combined at all, one of ordinary skill in the art would have been led to modify the expansion mat (4) of DE '283 or spacer mat (16) of DE '070, not the thermally insulating mat (5) of DE '283 or insulating mat (20) of DE '070. While the examiner argues that the seal mats with grooves of JP '916 have "improved winding performance" (page 1) and thus one of ordinary skill in the art would have been led to use such mats around end cones "to improve the winding of the mat thereof" (answer at 7-8), it is clear that the "improved winding performance" relates to the ability of the mats to relieve excessive compressive force on the honeycomb during winding of the mat around the honeycomb (pages 2-3).

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Under these circumstances, we cannot uphold the examiner's rejection of appealed claims 8, 9, 24, 25, 27, and 28.

As to the rejection of appealed claims 18, 26, and 29, we adopt the examiner's reasoning (answer at 5-6) as our own. While the appellants argue that neither DE '283 nor DE '070 discloses "a self-supporting preform" (appeal brief at 26; reply brief filed Jul. 6, 2004, pages 6-7), it would have been readily apparent to one of ordinary skill in the art that upon joining the ends of the sheet material with adhesive tape, the resulting structure would be self-supporting.

In summary, we reverse the rejection under 35 U.S.C. § 103(a) of appealed claims 8, 9, 24, 25, 27, and 28 as unpatentable over DE '283 or DE '070 in view of JP '916, Corn, and WO '081. We affirm, however, the examiner's rejection under 35 U.S.C. § 103(a) of appealed claim 18, 26, and 29 as unpatentable over DE '283 or DE '070 in view of Corn and WO '081.

The decision of the examiner is therefore affirmed in part.

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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

Bradley R. Garris)	
Administrative Patent Judge)	
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Terry J. Owens)	
Administrative Patent Judge)	APPEALS AND
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Romulo H. Delmendo)	
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