

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KATSUYASU ONO, SADANORI OHSUMI,
MASUO MATSUKI, and KIYOSHI OGAWA

Appeal 2008-1589
Application 10/100,015
Technology Center 3600

Decided: August 29, 2008

Before MURRIEL E. CRAWFORD, DAVID B. WALKER, and
JOHN C. KERINS, *Administrative Patent Judges*.

CRAWFORD, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 (2002) from a final rejection of claims 1 to 12. We have jurisdiction under 35 U.S.C. § 6(b) (2002).

Appellants invented a seat belt device including a venting mechanism having a gas passageway made of a material that melts and expands as high

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temperature and pressure gas is exhausted (Specification 1, 6). An oral hearing was held on August 12, 2008.

Claim 1 under appeal reads as follows:

1. A seat belt device comprising:
 - a gas generator for generating a high temperature and pressure gas when a vehicle is in emergency;
 - a cylinder for conducting the high temperature and pressure gas from the gas generator;
 - a piston received movably within the cylinder and pressed and moved by the high temperature and pressure gas;
 - a drive unit for rotating a winding shaft of a seat belt retractor in a direction of removing a slack of a belt, using the movement of the piston;
 - an energy absorbing mechanism, for reversely rotating the winding shaft when a tension acting on the belt exceeds a predetermined value after removing the slack of the belt; and
 - a venting mechanism having a gas passageway for exhausting the high temperature and pressure gas from a space filled with the high temperature and pressure gas to the outside of the space,
wherein at least a part of the gas passageway that is made of synthetic resin gradually melts and expands as the high temperature and pressure gas is exhausted.

The Examiner rejected claims 1 to 12 under 35 U.S.C. § 103 as being unpatentable over Schmid in view of Specht and Föhl.

The prior art relied upon by the Examiner in rejecting the claims on appeal are:

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Föhl	US 4,927,175	May 22, 1990
Schmid	US 5,842,344	Dec. 1, 1998
Specht	US 6,299,090 B1	Oct. 9, 2001

Appellants contend a person of ordinary skill in the art would not combine the teachings of Schmid, Specht and Föhl so as to form the blow-out patch 42 of Schmid of synthetic resin because Schmid specifically teaches that the blow-out patch should be formed of a metallic foil.

ISSUE

The issue is whether the Appellants have shown that the Examiner erred by finding that it would have been obvious to form the blow-out patch 42 of Schmid of synthetic resin in view of the teachings of Specht and Föhl.

FINDINGS OF FACT

Schmid discloses a seat belt device which includes a cylinder 20, a piston 22, a drive unit 36 and venting means 42, 60 (Figures 2 and 6). Part of the venting means is a blow-out patch 42 that clears the passage opening when there is excessive pressure in the interior space of the piston so that the pressure can be released to forestall the bursting of the cylinder (col. 1, ll. 49 to 54). The blow-out patch is formed of metallic foil. Schmid discloses:

The blow-out patch 42 is made of metallic foil press fitted in the piston. Use of a metallic foil ensures high reproducibility of the pressure values at which the

passage opening 40 is cleared because such metallic foil components can be produced with very tight tolerances and are relatively unaffected by changes in temperature. Moreover, by making the blow-out patch 42 from metallic foil, fragmentation of the blow-out patch 42 when the passage opening is cleared is avoided [col. 3, ll. 56 to 64].

Specht discloses a seat belt device including a sealing member 9 which includes a burn through point 14 that progressively opens gas passageways during the burn through process (col. 5, ll. 40 to 45; col. 6, ll. 4 to 7).

Föhl discloses forming a seal 34 for a seat tensioner comprised of a melttable synthetic resin (col. 4, ll. 3 to 16).

ANALYSIS

We will not sustain this rejection because we agree with the Appellants that a person of ordinary skill in the art would not modify the blow-out patch 42 of Schmid so as to be formed of a melttable synthetic resin, because Schmid specifically discloses that the patch is formed of metallic foil in order to obtain the advantages of tight tolerances and to avoid fragmentation. In addition, Schmid discloses that the blow-out patch should be unaffected by changes in temperature and the materials disclosed in Specht and Föhl are highly affected by changes in temperature in that they melt. As such, the modification of Schmid proposed by the Examiner is counter to the teachings of Schmid and would destroy the intended

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purpose of the blow-out patch. *See, In re Gordon*, 733 F.2d 900, 902 (Fed. Cir. 1984). We also note that our reviewing court has held that “[a] reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant.” *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994); *Para-Ordnance Mfg. v. SGS Importers Int'l*, 73 F.3d 1085, 1090 (Fed. Cir. 1995). In our opinion, the Schmid reference teaches away from the formation of the blow-out patch of a melttable material. As such, there would be no reason for a person of ordinary skill in the art to modify the Schmid blow-out patch so as to form the blow-out patch of melttable material.

The decision of the Examiner is reversed.

REVERSED

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