

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GEORGE A. BURNETT
and JOSHUA K. BROWN

Appeal 2008-5282
Application 11/119,032
Technology Center 2800

Decided: November 24, 2008

Before KENNETH W. HAIRSTON, JOHN A. JEFFERY, and
THOMAS S. HAHN, *Administrative Patent Judges*.

HAHN, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134 from the Examiner's rejections of claims 3 and 4. We have jurisdiction under 35 U.S.C. § 6(b). We affirm.

STATEMENT OF THE CASE

Appellants invented an improved piezoelectric alarm device. This piezoelectric alarm device includes a circuit board that is electrically connected to a piezoelectric transducer. Both the circuit board and the transducer are held in a housing. The housing further holds a header with electrical contacts. The housing holds a material encapsulating the header where the electrical contacts are supported. The supported contacts are positioned so they can be connected to an electrical power supply to provide power to the piezoelectric device.¹ Claim 3 is illustrative:

3. A piezoelectric alarm device comprising:

a) a housing,

b) a circuit board carried in said housing and electrically connected to a piezoelectric transducer carried in said housing;

c) an encapsulating material carried in said housing;

d) a header carried in said encapsulating material to be encapsulated in said housing, said header including first electrical connections connected to said circuit board,

e) a terminal block engaging said header, second electrical connections carried in said terminal block engaging leads to be electrically connected to said second electrical connections; and

f) outlets in said housing through which sound is emitted.

¹ See generally Spec. 2:12 - 3:17; Fig. 1.

The Examiner relies on the following prior art references to show unpatentability:

Garcia	US 5,480,416	Jan. 2, 1996
Young	US 6,191,696 B1	Feb. 20, 2001
Parker	US 6,796,245 B2	Sep. 28, 2004

Claim 3 stands rejected under 35 U.S.C. §103(a) as unpatentable over Young and Parker (Ans. 3).

Claim 4 stands rejected under 35 U.S.C. §103(a) as unpatentable over Young, Parker, and Garcia (Ans. 4).

Rather than repeat the arguments of Appellants or of the Examiner, we refer to the Brief and the Answer² for their respective details. In this decision, we have considered only those arguments actually made by Appellants. Arguments that Appellants could have made but did not make in their Brief have not been considered and are deemed to be waived. *See* 37 C.F.R. § 41.37(c)(1)(vii).

Obviousness Rejections and Appellants' Arguments

Appellants argue that Parker “does not teach a header that is encapsulated” (Br. 8). In support of this conclusion, Appellants assert that “Parker teaches a unitary structure of a header, base and shorting bars, [and] ... that the entire unitary structure would have to be encapsulated [which] ... it is clear that it is not encapsulated” (*Id.*). The Examiner responds that “it is

² Appellants did not file a Reply Brief. We, therefore, refer to: (1) the Appeal Brief filed December 4, 2006 (supplemented February 9, 2007), and (2) the Answer mailed May 14, 2007 throughout this opinion.

not the [Parker] header, base, and shorting bar that is described as a unitary structure, it is the holder that is a unitary structure, and that the unitary holder holds the header, base, and shorting bar” (Ans. 5). The Examiner concludes that Parker teaches that “the unitary holder ... holds, or encapsulates, the header” (*Id.*).

ISSUE

Have Appellants shown the Examiner erred in combining the teachings of Young, Parker, and Garcia to arrive at the claimed invention? The issue turns on whether Parker teaches a material encapsulated header.

FINDINGS OF FACT

The following Findings of Fact (FF) are supported by a preponderance of the evidence on the record before us:

1. Young discloses an alarm system having a housing that supports a circuit board with an electrically connected piezoelectric ceramic disc, and the housing also supports a plug that includes multiple pins for connecting to an electric power source (Young, col. 4, ll. 35-58; col. 6, ll. 21-23; Fig. 1).
2. To provide electric power to a gas generator, Parker teaches a multiple contact pin header structure (Parker, col. 6, l. 35 – col. 7, l. 26; Figs. 8-9).
3. Parker also teaches that prior gas generators were assembled using independent component headers, bases, and shorting clip assemblies, and that manufacturing processes using the

independent components required “precise tolerances to avoid mismatching during assembly” that resulted in “high production costs” (Parker, col. 1, l. 50 – col. 2, l. 47; Fig 1).

4. Parker proceeds from disclosure of disadvantages resulting from multiple components to teaching use of a “unitary header/base/shorting bar holder ... made of a material such as a polymer ...” where “‘unitary’ means made in a single piece, such as by molding or the like” (Parker, col. 4, ll. 19-25).
5. With respect to the Parker shorting bar holder, the reference discloses that “legs 229 and 229’ of the shorting bar ... extend[] alongside the shorting bar holder portion 230...” (Parker, col. 7, ll. 3-5 and 11-12).
6. Garcia discloses an electrical cardiac pulse generator with an epoxy encapsulated header (Garcia, col. 4, ll. 4-26; Figs 1, 2 and 3).

PRINCIPLES OF LAW

The Examiner in rejecting claims under 35 U.S.C. § 103 must establish a factual basis to support the legal conclusion of obviousness. *See In re Fine*, 837 F.2d 1071, 1073 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17 (1966).

In addressing the question of obviousness for claimed subject matter involving a combination of known elements, the Supreme Court explains:

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it,

either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. *Sakraida* [v. *AG Pro, Inc.*, 425 U.S. 273 (1976)] and *Anderson's-Black Rock, Inc. v. Pavement Salvage Co.*, 396 U.S. 57 (1969)] are illustrative—a court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

KSR Int'l v. Teleflex, Inc., 127 S. Ct. 1727, 1740 (2007).

If the claimed subject matter cannot be fairly characterized as involving the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement, a holding of obviousness can be based on a showing that “there was an apparent reason to combine the known elements in the fashion claimed.” *Id.* at 1740-41. Such a showing requires

some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. . . . [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.

Id. at 1741 (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)) (internal quotation marks omitted).

When the Examiner’s burden is met, the burden shifts to the Appellants to overcome the prima facie case with argument and/or evidence. Obviousness is then determined on the basis of the evidence as a whole and

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the relative persuasiveness of the arguments. *See In re Oetiker*, 977 F.2d 1443, 1445 (Fed. Cir. 1992).

ANALYSIS

The Examiner finds all limitations recited in claim 3 as being taught in Young except for those covering “an encapsulating material carried in said housing, and ... a header carried in said encapsulating material to be encapsulated in said housing” (Ans. 3). The Examiner’s findings premised from Young are neither contradicted by Appellants submitting evidence nor argument (Br. 8-9).

The Examiner turns to Parker and finds it “teaches a header configuration (Fig 8) in which the header is enclosed within a housing (item 220) and include[es] an encapsulating material (item 210) carried in said housing, and the header carried in said encapsulating material [is] encapsulated in said housing (Fig. 8)” (Ans. 3). Based on this finding, the Examiner concludes that it would have been obvious to a skilled artisan at the time of invention “to combine the header of Parker ... with the alarm device of Young ... for the benefit of more securely holding the connecting pins in place” (Ans. 4). In response, Appellants argue that:

[A] close reading of Parker ... does not teach a header that is encapsulated. The examiner cites item 210 of Figure 8 as encapsulating a header. However, item 210 is described (Col 6; lines 40-42) as a shorting bar of a unitary header, base, shorting bar holder. A clear picture of the shorting bar can be seen in Figure 9. With reference to Figure 9 and the description at col. 7 lines 2-17 it is clear that the shorting bar is composed of legs that do not encase anything, let alone encapsulate.

(Br. 8)

Parker Figs. 8 and 9 are reproduced below for clarity:

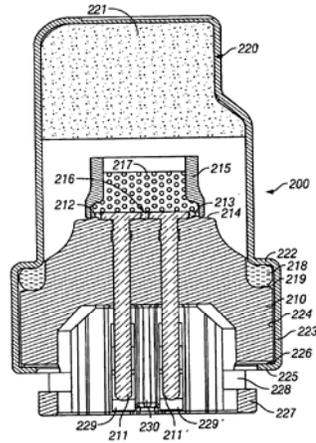


Fig. 8 is a cross-section of a gas generator incorporating a unitary header/base/shorting bar holder.

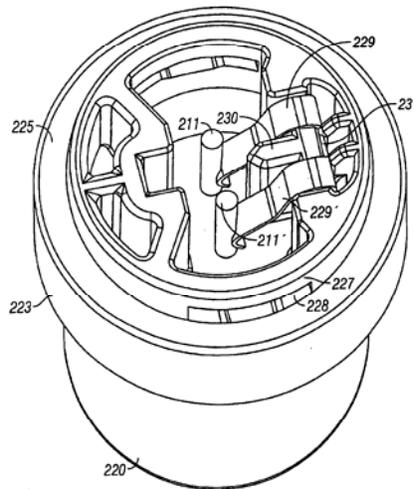


Fig. 9 is a perspective view of the structure shown in Fig. 8.

The Examiner interprets Parker's disclosures to teach that "the unitary holder holds the header, base, and shorting bar," and that "the unitary holder

210 holds, or encapsulates, the header” (Ans. 5). With respect to the Parker “holder” we read the reference differently from the Examiner.

As background, Parker teaches that prior gas generators were assembled using independent component headers, bases, and shorting clip assemblies, and that using multiple independent components causes disadvantages (FF 3). We then find Parker addressing these disadvantages by teaching use of a unitary header/base/shorting bar holder, where “‘unitary’ means made in a single piece...” (FF 4). Based on these findings from Parker, we conclude that Parker does not teach a “unitary holder,” but instead teaches a unitary structure including all of a header, a base, and a shorting bar holder in a single piece, i.e., a unitary structure. As further support for this conclusion, we find Parker disclosing that shorting legs 229 and 229’ extend from the shorting bar holder 230 (FF 5). Thus, there is a Parker shorting bar holder--not a Parker “unitary holder.” Consequently, we find Parker to teach a unitary structure for a header, a base, and a shorting bar holder (FF 4).

We are not persuaded by Appellants’ contention that “the entire [Parker] unitary structure would have to be encapsulated” (Br. 8). The appealed claim recites “a header carried in said encapsulating material to be encapsulated in said housing, said header including first electrical connections connected to said circuit board.” This limitation we find reads on Parker’s Figure 8. Specifically, we find a header carried in an encapsulating material (210) that is encapsulated in a housing (220) with electrical connections (211 and 211’).

For the foregoing reasons, Appellants have not persuaded us of error in the Examiner’s rejection of claim 3. Therefore, we will sustain the

Examiner's rejection of that claim. We will also sustain the Examiner's rejection of claim 4 which falls with claim 3, as that claim was not separately argued by Appellants apart from its dependence from claim 3.

CONCLUSION OF LAW

Appellants have not shown that the Examiner erred in combining the teachings of Young, Parker, and Garcia to arrive at the invention recited in claims 3 and 4, because Parker teaches a material encapsulated header.

DECISION

We have sustained the Examiner's rejections with respect to all claims on appeal. Therefore, the Examiner's decision rejecting claims 3 and 4 is affirmed.

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).

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AFFIRMED

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