

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MARIO A. BOLANOS, JEREMIAS L. LIBRES,
GEORGE A. BEDNARZ, TAY LIANGCHEE,
JULIUS LIM and IRENEUS J. T. M. PAS

Appeal No. 1998-2538
Application No. 08/434,336

ON BRIEF

Before WALTZ, KRATZ and PAWLIKOWSKI, Administrative Patent Judges.

PAWLIKOWSKI, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the refusal of the examiner to allow claims 1-5 and 7-9. We note that claim 6 has been canceled and claims 10-24 are directed to non-elected claims.

Claim 1 is illustrative of the subject matter on appeal:

1. A method for encapsulating integrated circuit lead frame and die assemblies, comprising the steps of:

providing a plurality of bottom die cavity regions within a bottom mold chase;

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providing a mold compound receptacle spaced apart from said bottom die cavity regions, for receiving a mold compound insert;

providing a plurality of runners coupling said mold compound receptacle to each of said die cavity regions;

providing a plurality of top die cavity regions each corresponding to a bottom die cavity region is [sic, in] said bottom mold chase;

placing a plurality of leadframe and die assemblies on said bottom mold chase such that each of said bottom die cavities receives and supports an integrated circuit die coupled to a lead frame by bond wires;

placing a mold compound insert in said mold compound receptacle;

placing said top mold cavities over said bottom mold cavities such that the top and bottom mold cavities are brought into contact, the leadframe and die assemblies lying between and within the top and bottom die cavities;

compressing said mold compound insert such that said mold compound exits the mold compound insert and begins to move into said runners; and

continuing to compress said mold compound insert until said mold compound transfers into said runners and fills each of said top and bottom mold cavities with said mold compound;

wherein said mold compound insert comprises mold compound packaged in a sproutless packaging, comprising a thermoset resin packaged in a sproutless plastic film that is heat sealed at the edges, the sproutless packaging being burst open where the runners intersect the mold compound receptacle by the pressure caused when the mold compound insert is compressed.

The references relied upon by the examiner as evidence of obviousness are:

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Saeki et al. (Saeki)	4,900,501	Feb. 13, 1990
Kubota et al. (Kubota)	5,043,199	Aug. 27, 1991

Claims 1-5 and 7-9 stand rejected under 35 U.S.C. § 103 as being obvious over Kubota in view of Saeki.

We refer to the brief and to the answer for a complete exposition of the opposing viewpoints expressed by appellants and by the examiner concerning the above-noted rejection.

OPINION

For the reasons expressed by appellants and for the reasons set forth below, we will reverse the rejection of record.

On pages 6-7 of their brief, appellants indicate that Kubota does not show, teach or suggest "said mold compound insert comprises mold compound packaged in a sproutless packaging, comprising a thermoset resin packaged in a sproutless plastic film that is heat sealed at the edges."

On page 5 of the answer, the examiner states that "[t]he instant claimed mold compound packaged in a sproutless plastic film that is heat sealed at the edges is a mere conventional package that does not manipulatively differentiate the instant claimed process of encapsulating integrated circuit leadframes." However, the examiner does not point to any evidence in the

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record showing that appellants' claimed mold compound insert is conventional.

Furthermore, appellants' claim 1 requires the step of placing a mold compound insert in a mold compound receptacle wherein the mold compound insert comprises mold compound packaged in a sproutless packaging, comprising a thermoset resin packaged in a sproutless plastic film that is heat sealed at the edges. Hence, this aspect of the claim must be taught or suggested by the applied art. In this context, we observe that the examiner has not shown that the combination of Kubota in view of Saeki teaches a mold compound insert comprising a mold compound packaged in a sproutless packaging, comprising a thermoset resin packaged in a sproutless plastic film that is heat sealed at the edges. The examiner recognizes that Kubota, with respect to Figures 10a-10h, places resin in a rubber tube. Hence, the examiner recognizes that Kubota uses rubber material for the packaging. (answer, page 5).

We also observe that Kubota recommends a dust proof paper 23 as the covering membrane (column 4, lines 10-15), or an aluminum foil (column 4, lines 38-43). Also, at column 3, lines 14-16, Kubota indicates that membrane 3 can consist of flexible

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material, such as heat proof silicon rubber. Saeki does not utilize a packaged insert. Hence, we cannot find, and the examiner has not shown, that the prior art teaches or suggests the use of a sproutless plastic film for packaging a mold compound.

Therefore, we determine that a requirement of claim 1 is not suggested by the applied art according to the examiner's rejection, and according to our observations of the applied references, as discussed above.

Furthermore, we note that obviousness can be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). Here, the examiner's rejection lacks the proper motivation regarding why one skilled in the art would have combined the teachings of Kubota in view of Saeki, when Kubota is directed to utilizing a resin tablet for plastic encapsulation, whereas Saeki is directed to utilizing an unpackaged resin.

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For the above-mentioned reasons and for those expressed by appellants, it is our determination that the applied art does not establish a prima facie case of obviousness within the meaning of 35 U.S.C. § 103. As a consequence, we reverse the examiner's §103 rejection of claims 1-5 and 7-9.

The decision of the examiner is **reversed**.

REVERSED

Thomas A. Waltz)	
Administrative Patent Judge)	
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Peter F. Kratz)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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