

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLE FRIIS KNUDSEN

Appeal No. 2002-0552
Application No. 09/117,603

ON BRIEF

Before ABRAMS, FRANKFORT, and MCQUADE, Administrative Patent Judges.

FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claim 3, the only claim remaining in this application. Claims 1, 2 and 4 have been canceled.

As noted on page 1 of the specification, appellant's invention relates to a housing for an electrical device, such as a measuring transducer, wherein at least one electrical lead is introduced into the housing through the wall of the housing and is sealed against the wall by a sealant. More particularly,

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appellant's invention is directed to the use of a specific sealant material, i.e., tar, which appellant has found to be simpler and more reliable than prior art sealants and which does not impair the suitability of the electrical leads for soldering. In the paragraph bridging pages 3-4 of the specification, appellant notes that the tar used can be "roofing tar" and that such tar is fluid at normal ambient temperatures, spreads out easily and forms a circular ring which seals the terminals (4) and lead (3) completely against the wall of the housing, penetrates by capillary action into any small voids between the conductors and the feedthrough openings of the housing and into crevices and cracks, and when dry, forms a solid sealed connection between the terminal/conductor and the wall of the housing, without impairing the suitability of the electrical leads for soldering. A copy of claim 3 can be found in the Appendix to appellant's brief.

The prior art references of record relied upon by the examiner in rejecting claim 3 are:

Suzuki et al. (Suzuki)	5,637,007	Jun. 10, 1997
Arnett et al. (Arnett)	5,942,333	Aug. 24, 1999

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Suzuki in view of Arnett.

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Rather than attempt to reiterate the examiner's commentary with regard to the above-noted rejection and the conflicting viewpoints advanced by appellant and the examiner regarding the rejection, we make reference to the examiner's answer (Paper No. 20, mailed October 19, 2001) for the reasoning in support of the rejection, and to appellant's brief (Paper No. 19, filed August 20, 2001) and reply brief (Paper No. 21, filed January 18, 2002) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellant's specification and claim 3, to the applied prior art references, and to the respective positions articulated by appellant and the examiner. As a consequence of our review, we have made the determination that the examiner's rejection of claim 3 under 35 U.S.C. § 103(a) will not be sustained. Our reasons follow.

The examiner's position (answer, pages 3-5) is that Suzuki discloses all of the subject matter of claim 3, except that it does not identify the resin sealant (10) disposed between the leads (3), terminals (4, 4A) and housing (2) therein as being

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tar. To account for this difference, the examiner has made the following observations on page 4 of the answer,

[t]he definition of "tar" is (a) "a dark brown or black bituminous usually odorous viscous liquid obtained by destructive distillation of organic material . . ." or (b) "a substance in some respects resembling tar . . ." Merriam-Webster's Collegiate Dictionary, 10th ed., 1993 (emphasis added). Bitumen is defined as "any of various mixtures of hydrocarbons (as tar) often together with their nonmetallic derivatives that occur naturally . . ." Id. Arnett discloses a tar sealant for sealing an electrical connector (col. 11, Lines 21-30) which is a liquid when applied and which is cured after application. Note that Arnett uses the term "coating" as meaning a "sealant." Col. 6, lines 33-47, col. 1, line 40. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use the Arnett tar sealant in the Suzuki device. The suggestion or motivation for doing so would have been to take advantage of the Arnett sealant's good dielectric properties, resistance to water, and other desirable properties as taught in Arnett (col. 11, lines 25-30).

Appellant points out that claim 3 on appeal defines the sealant therein as being "pure tar which is liquid when applied and which then cures after application." Appellant then contends that the coal-tar and epoxy mix for corrosion inhibition of metal surfaces referred to by the examiner in Arnett (col. 11, lines 21-30) is not "pure tar," and further urges that there is nothing in Arnett which would suggest the use of "pure tar" as a sealant against electrical leads in a housing of the type defined in claim 3 on appeal.

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Additional insight into the examiner's position regarding the obviousness rejection of claim 3 is found in the examiner's answer (pages 4-5), wherein the examiner has urged that a substance "in some respects resembling" a dark brown or black bituminous viscous liquid obtained by destructive distillation of organic material is "tar" and that even with the inclusion of an epoxy component as in the composition described in Arnett (col. 11), the resultant sealant therein is still "tar."

In describing the coal-tar epoxy coating relied upon by the examiner, Arnett (col. 11, lines 10-31) notes that the coating composition is epoxy-based and makes use of Shell Epon 828 and diethylenetriamine (DETA) as the base resin and curing agent, wherein the curing agent ratio is 12 percent DETA by weight in the Shell 828. Coal-tar in an amount of 10% by weight is then added to the basic epoxy resin and curing agent mixture and the resulting viscous fluid is applied by dip coating or by brush to a metal surface to be protected and then allowed to cure. Like appellant, we are of the opinion that one of ordinary skill in the art would not have viewed the coal-tar epoxy coating composition of Arnett containing only 10% by weight of coal-tar to be "pure tar" as required in appellant's claim 3 on appeal. Thus, even if one of ordinary skill in the art were to attempt to

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substitute the epoxy/coal-tar corrosion inhibiting coating material of Arnett for the sealant (10) in the electrical housing or connector of Suzuki, the result would not be a housing arrangement like that claimed by appellant.

In our opinion, appellant's use of "pure tar" in claim 3 on appeal limits that claim to a tar material, e.g., roofing tar, that is essentially pure and, at most, includes some small proportion of impurities that would not materially affect the basic characteristics of the tar distillate itself. The examiner's attempt to read "pure tar" as broadly being "a substance in some respects resembling tar," like the epoxy-based coating material of Arnett, is far too reaching and clearly beyond the bounds of what appellant's claim 3 is limited to.

Moreover, we share appellant's view that the examiner's attempt to substitute the epoxy-based, corrosion resistant coating material of Arnett, used to combat cathodic delamination of underwater rubber-to-metal adhesive bonds, for the sealer (10) located within the housing (2) of the electrical connector in Suzuki constitutes an improper hindsight reconstruction founded on information the examiner has derived only from appellant's own

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teachings and not from any fair teaching or suggestion in the references themselves.

In light of the foregoing, it is our determination that the examiner has not made out a *prima facie* case of obviousness, and that the decision of the examiner rejecting claim 3 under 35 U.S.C. § 103(a) must be reversed.

REVERSED

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	
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)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
JOHN P. MCQUADE)	
Administrative Patent Judge)	

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