

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.

Paper No. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT J. MICHAEL and RENE L. M. A. PAQUET

Appeal No. 97-0752
Application 08/354,304¹

ON BRIEF

Before STAAB, McQUADE and CRAWFORD, *Administrative Patent Judges*.
STAAB, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1-4. Claim 5, the only other claim currently pending in the application, has been indicated by the examiner as being

¹ Application for patent filed December 12, 1994.

Appeal No. 97-0752
Application 08/354,304

allowable if rewritten in independent form to include all the limitations of base claim 1.²

Appellants' invention pertains to a mechanical coupling device for transmitting rotational movement from one member to another. A basic understanding of the invention can be derived from a reading of exemplary claim 1, a copy of which is appended to appellants' brief.

In support of the rejection, the examiner relies on the reference listed below:

Moore 4,240,763 Dec. 23, 1980

Claims 1-4 stand rejected under 35 U.S.C. § 103 as being unpatentable over Moore. The examiner's findings with respect to Moore are as follows:

[T]he examiner views member 16 as a particulate charge residing with a chamber, and means for compressing or releasing the charge as the transfer of torsional forces between the inner and outer shafts 11 and 12 (described in column 3, lines 8-13). . . . [T]he material of the coupling member 16 of Moore is designed such that it comprises elastomeric material and acts as a resilient coupling, and such that at predetermined stress' [sic] the member will transfer the applied torque between members. [answer, page 3]

²The amendment filed on May 9, 1996 subsequent to the final rejection has not been entered. See the advisory letters dated June 7, 1996 (Paper No. 9) and June 19, 1996 (Paper No. 10).

Appeal No. 97-0752
Application 08/354,304

Based on the above, the examiner has made the following conclusions of obviousness:

[I]t would have been obvious to one having ordinary skill in the art at the time the invention was made to use silicone rubber in crumb form . . . since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 USPQ 416.

The examiner also takes the position that "although Moore does not specifically describe rubber charge 16 as a silicone crumb in a particulate form, it is well known in the art to use such materials in similar applications as stated within the specification of the instant application on page 2 lines 27-30" (final rejection, page 3).

We will not sustain this rejection.

At the outset, the examiner's reference to a portion of appellants' specification in support of the rejection is improper and inappropriate since this portion of the specification is not included in the list of prior art relied upon by the examiner in support of the rejection and is not included in the statement of the rejection. If a prior art teaching is relied upon in any capacity to support a rejection, it should be positively included

Appeal No. 97-0752
Application 08/354,304

in the statement of the rejection. Compare Manual of Patent Examining Procedure (M.P.E.P.) 706.02(j); *In re Hoch*, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970) and *Ex parte Raske*, 28 USPQ2d 1304-05 (BPAI 1993).

In any event, to the extent it is the examiner's position that appellants' specification teaches that it is known in the art to use silicone crumb material in particulate form to transmit torque, the examiner's position is not well taken. The patents listed by appellants at the bottom of page 1 of the specification indeed establish that cured silicone rubber composition in crumb form, as called for in base claim 1, is *per se* known. However, these patents do not teach appellants' use of this material, namely, to transmit torque when sufficiently compressed.

The examiner's reliance on *In re Leshin* to supply this apparent deficiency in the prior art also is inappropriate. In *Leshin*, the material in question, plastic, was selected for use in the claimed device based on its known suitability for the applicant's intended purpose. Such is clearly not the case here where, based on the record before us, only appellants have

Appeal No. 97-0752
Application 08/354,304

recognized cured silicone rubber composition in crumb form as being a material suitable for transmitting torque when sufficiently compressed.

We also do not agree with the examiner's finding with respect to the Moore patent. Moore pertains to a torque transmitting coupling between an outer tubular shaft 11 and an inner tubular shaft 12. The primary torque transmitting mechanism is a pair of rubber sleeves 14, 15 provided in an annular space between the shafts. These sleeves are bonded to the inner shaft and are under radial compression (column 3, lines 1-7). As explained by Moore, "[i]nitial application of torque between the universal joints 10 is transmitted solely via the rubber sleeves 14, 15, but when a predetermined degree of torsional deflection is exceeded torque is additionally transmitted in parallel with the sleeves by means of a buffer unit 16" (column 3, lines 8-13). Buffer unit 16 comprises a female spider unit 18 integral with the outer shaft 11 and a male spider unit 17 welded to the inner shaft 12. The male spider unit and the female spider unit are formed of metal (column 3, line 31; column 4, line 12) and are constructed in a manner

Appeal No. 97-0752
Application 08/354,304

similar to that of a dog clutch (column 4, lines 9-10). Arms 20 of the male spider unit "are covered with a rubber layer 25 so as to eliminate the shock load effect which would otherwise occur if the metal arms 20 abutted directly with the metal abutments 24 of the female spider unit 18" (column 3, lines 28-32).

A reading of Moore's specification makes clear that buffer unit 16 operates as a backup unit to prevent undue strain and damage to the rubber sleeves when a certain degree of torsional deflection is exceeded because of higher torque loadings (column 1, lines 50-58). In view of its stated purpose, the buffer unit is essentially a rigid metal component, the arms of the male spider unit being provided with a thin rubber layer 25 merely for the purpose of eliminating shock loads that would result if metal-to-metal contact occurred when the buffer unit first comes into play (column 4, lines 10-14). Based on the above, it is difficult to perceive how Moore's buffer unit 16 could be characterized as being "a particulate charge" and/or "designed such that it comprises elastomeric material and acts as a resilient coupling" (answer, page 3), as the examiner has done here in an apparent attempt to analogize Moore's buffer unit 16 to the claimed charge of silicon rubber in crumb form that may be compressed to transmit torque. Because of the way Moore's device

Appeal No. 97-0752
Application 08/354,304

operates, one of ordinary skill in the art would have found the examiner's proposed modification to be highly undesirable, and thus not obvious, because it would render Moore's buffer unit unsuitable for its intended purpose of protecting the rubber sleeves from undue strain and damage when higher torques are encountered.

In light of the foregoing, we cannot sustain the examiner's rejection of the appealed claims as being unpatentable over Moore.

The decision of the examiner is reversed.

REVERSED

LAWRENCE J. STAAB)	
Administrative Patent Judge)	
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JOHN P. McQUADE)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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MURRIEL E. CRAWFORD)	
Administrative Patent Judge)	

Appeal No. 97-0752
Application 08/354,304

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