

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte THOMAS DUDLEY BELANGER, JR.  
and DAVID JOHN RUTKOWSKI

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Appeal No. 2004-0706  
Application No. 09/777,982

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ON BRIEF

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

MCQUADE, Administrative Patent Judge.

DECISION ON APPEAL

Thomas Dudley Belanger, Jr. et al. originally took this appeal from the final rejection of claims 1 through 36, all of the claims pending in the application.<sup>1</sup> As the examiner has since withdrawn all rejections of claims 33, 34 and 36, the appeal as to these claims is hereby dismissed, leaving for review the standing rejections of claims 1 through 32 and 35. Claim 33 now stands objected to as depending from a rejected base claim and claims 34 and 36 now stand allowed.

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<sup>1</sup> Claims 23, 27 and 34 through 36 have been amended subsequent to final rejection.

THE INVENTION

The invention relates to "flexible circuits utilized in the automotive industry which can additionally incorporate the terminals of surface mounted devices as contacts for various electrical components" (specification, page 1). Representative claim 1 reads as follows:

1. An arrangement of a flex circuit comprising:  
a first substrate;  
a first conductive membrane connected with said first substrate, said first membrane having a first gap;  
a second substrate spaced away from said first substrate, at least one of said first or second substrates being flexible;  
a second conductive membrane connected with said second substrate; and  
a first surface mounted substrate-based electrical device with and end cap termination, said first surface mounted device bridging over said first gap in said first conductive membrane, said end cap termination electrically connecting with said second conductive membrane to complete an electrical circuit between said first and second conductive membranes when said substrates are displaced toward one another.

THE PRIOR ART

The references relied on by the examiner to support the rejections on appeal are:

Wafer	4,445,732	May 1, 1984
McClure	5,501,009	Mar. 26, 1996

THE REJECTIONS

Claims 1 through 4, 10, 13, 14, 19, 21, 22 and 35 stand rejected under 35 U.S.C. § 102(b) as being anticipated by McClure.

Claims 5 through 9, 11, 12 and 15 through 18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McClure.

Claims 20 and 23 through 32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over McClure in view of Wafer.

Attention is directed to the brief (Paper No. 18) and answer (Paper No. 19) for the respective positions of the appellants and examiner regarding the merits of these rejections.<sup>2</sup>

DISCUSSION

McClure discloses an electrical connector assembly for use with a printed circuit board 12 having contacts 14 in the form of solder pads or plated through holes. The connector assembly includes a first connector 10 comprising a housing 20 and a plurality of terminals 22, and a second connector 16 comprising a plurality of leads 18. The terminals 22 have opposite ends for

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<sup>2</sup> In the final rejection (Paper No. 8), claim 35 also stood rejected, along with claims 34 and 36, under 35 U.S.C. § 112, second paragraph, as being indefinite. The examiner withdrew this rejection in view of the subsequent amendment of these claims (see the advisory action dated December 20, 2002, Paper No. 10).

respectively engaging the contacts 14 on the printed circuit board 12 and the leads 18 in the second connector 16.

Each of the rejections on appeal rests in large part on a finding by the examiner (see pages 4, 7 and 8 in the answer) that either of McClure's connectors 10 and 16 meets the limitations in independent claims 1, 22 and 23 requiring a surface mounted substrate-based electrical device with an end cap termination and the related limitation in independent claim 35 requiring a surface mounted film electrical element with an end cap termination. From the examiner's perspective, the McClure connectors are "surface mounted" and "substrate based" because they are mounted on the surfaces of printed circuit board substrates and "electrical devices" because they are pieces of equipment that serve an electrical purpose. The examiner also submits that these connectors have an "end cap termination" in the form of the end terminals in their respective terminal or lead arrays.<sup>3</sup>

The appellants counter that the examiner's analysis is unsound in that a person of ordinary skill in the art would understand the subject claim limitations as defining a device

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<sup>3</sup> The examiner does not specifically explain how McClure's connectors meet the "film" limitation in claim 35.

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quite different than the connectors disclosed by McClure, particularly when such claim limitations are interpreted in light of the specification. In this regard, the appellants point to the description in the specification of exemplary devices (24, 60) comprising an electrical film element (e.g. a resistor 28 or capacitor 64) disposed on a substrate or base (30, 70) having two outer end caps (36, 72, 74) for mounting and electrically connecting the device to the surface of a conductive substrate (16, 50). To buttress their position, the appellants also rely on selected portions of an electronics handbook and catalog appended to the brief as Items B and C.

It is well settled that during patent examination, claims are given their broadest reasonable interpretation consistent with the underlying specification without reading limitations from the specification into the claims. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969). Even under this standard, which is somewhat less restrictive than that set forth in the infringement cases cited by the appellants,<sup>4</sup> the examiner's interpretation of the claim language in question is unduly broad, stemming as it does from a unreasonable parsing of

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<sup>4</sup> See In re Zletz, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1321-22 (Fed. Cir. 1989).

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the wording involved. In short, even when given their broadest reasonable interpretation consistent with the underlying specification, the recitations of the surface mounted substrate-based electrical device with an end cap termination in claims 1, 22 and 23 and the surface mounted film electrical element with an end cap termination in claim 35 do not read on the connectors 10 and 16 disclosed by McClure. While these prior art connectors arguably respond to certain portions of the recitations taken out of context, they do not respond to the recitations viewed as a whole and in light of the underlying specification.

Accordingly, we shall not sustain the standing 35 U.S.C. § 102(b) rejection of independent claims 1, 22 and 35, and dependent claims 2 through 4, 10, 13, 14, 19 and 21, as being anticipated by McClure.

As McClure, considered alone or in combination with Wafer, would not have suggested a flex circuit arrangement meeting the claim limitations discussed above, we also shall not sustain the standing 35 U.S.C. § 103(a) rejection of dependent claims 5 through 9, 11, 12 and 15 through 18 as being unpatentable over McClure, or the standing 35 U.S.C. § 103(a) rejection of independent claim 23 and dependent claims 20 and 24 through 32 as being unpatentable over McClure in view of Wafer.

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SUMMARY

The decision of the examiner to reject claims 1 through 32 and 35 is reversed.

REVERSED

CHARLES E. FRANKFORT	)	
Administrative Patent Judge	)	
	)	
	)	BOARD OF PATENT
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	)	APPEALS AND
LAWRENCE J. STAAB	)	
Administrative Patent Judge	)	INTERFERENCES
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JOHN P. MCQUADE	)	
Administrative Patent Judge	)	

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