

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ALAN GOBER

Appeal No. 97-4158
Application No. 08/515,218¹

ON BRIEF

Before COHEN, ABRAMS and McQUADE, *Administrative Patent Judges*.

ABRAMS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the decision of the examiner finally rejecting claims 41-60, which constitute all of the claims remaining of record in the application.

¹Application for patent filed August 15, 1995. According to appellant, this application is a continuation of Application 08/154,047, filed November 17, 1993, now abandoned.

Appeal No. 97-4158
Application No. 08/515,218

The appellant's invention is directed to a zero insertion force socket (claims 41-47), to a method of providing a retention force in a zero retention force socket (claims 48-54), and to a computer system comprising a circuit board with a zero insertion force socket (claims 55-60). The subject matter before us on appeal is illustrated by reference to claim 1, which has been reproduced in an appendix to the Appeal Brief (Paper No. 23).

THE REFERENCES

The references relied upon by the examiner to support the final rejection are:

Scheingold et al. (Scheingold) 1981	4,278,311	Jul. 14,
Kishi et al. (Kishi) 1993	5,244,404	Sep. 14,
Bright 1993	5,256,080	Oct. 26,

Bruder, IBM Technical Disclosure Bulletin, Vol. 13, No. 5
(October 1974) p. 1265.

Jarvela, IBM Technical Disclosure Bulletin, Vol. 16, No. 12
(May 1974) pp. 3975-3976.

THE REJECTION

Appeal No. 97-4158
Application No. 08/515,218

Claims 41 through 60 stand rejected under 35 U.S.C. § 103 as being unpatentable over Bruder in view of Bright, Kishi, Jarvela and Scheingold.

The rejection is explained in the Examiner's Answer.

The opposing viewpoints of the appellant are set forth in the Appeal Brief.

OPINION

This rejection is under 35 U.S.C. § 103, and therefore the examiner bears the initial burden of presenting a *prima facie* case of obviousness (see *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993)), which is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of ordinary skill in the art (see *In re Bell*, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993)). It is our view that the examiner has not met this burden, and therefore we will not sustain the rejection. Our reasons for arriving at this conclusion follow.

Appeal No. 97-4158
Application No. 08/515,218

The problem to which the appellant has directed his inventive efforts is applying a second component retaining force to ZIF sockets to minimize the probability of component movement or detachment in the face of the use of larger components, such as those containing heat sinks (specification, page 3). The appellant solves the problem by incorporating into the mechanism which operates the first retaining system, a second system which applies a resilient force to the upper surface of the component to urge it toward the upper surface of the body upon which it is mounted.

Claim 41 is directed to a zero insertion force (ZIF) socket comprising four components. Bruder discloses a ZIF socket comprising the claimed body, binding member and first arm member, which operate together in the same manner as the appellant's invention to retain the component assembly installed thereon in place by engaging the component pins. What Bruder does not teach, however, is the second retention means, that is, the "first projection extending generally perpendicularly from the first arm member and extending over a portion of the component assembly" to provide a retention force to "resiliently urge the component assembly toward the

Appeal No. 97-4158
Application No. 08/515,218

upper surface of the body." We observe in passing that Bruder describes his handle (lid) 6 as "entrapping" the test subject when in the lowered position. It would be speculation, however, to conclude that handle 6 applies a retention force to the upper surface of the test subject, for the reference does not so state, and the common definition of the word does not support such a conclusion.²

The examiner looks to Jarvela for its teaching of pressing down on the top of an electronic module with a non-resilient element, and to Kishi and Scheingold for theirs of pressing downwardly on a part with a resilient or spring structure, from which he concludes it would have been obvious to one of ordinary skill in the art to add a resilient spring to the inside of the Bruder handle (lid) 6. However, the mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Here, we fail to

²To entrap is to catch in or as if in a trap. Mirriam Webster's Collegiate Dictionary, Tenth Edition, 1996, page 387.

Appeal No. 97-4158
Application No. 08/515,218

perceive any teaching, suggestion or incentive that would have led one of ordinary skill in the art to provide the Bruder device with a resilient projection extending over the component, absent the hindsight accorded one who first reviewed the appellant's disclosure. There are several reasons for arriving at this conclusion. First, the problem addressed by the appellant has not been recognized by any of the applied prior art references, much less Bruder and Bright, which are the only ones that disclose ZIF sockets. Therefore, no suggestion to modify Bruder in the manner proposed by the examiner is found in this consideration. Second, there is no other suggestion, explicit or implicit, in any of the applied references which would have motivated one of ordinary skill in the art to add a second component retention system to the Bruder device. Bruder discloses a test fixture, and there would seem to be no reason why the artisan would be concerned about components becoming detached because of being subjected to rough treatment, as would be the case in a portable computer, for example, and so the "binding" system would be sufficient to secure the component being tested. Finally, the references do not disclose or teach operating two different

Appeal No. 97-4158
Application No. 08/515,218

retention systems by means of the same operating arm, and therefore they would have provided no suggestion to modify Bruder in the manner proposed by the examiner.

For the reasons expressed above, it is our opinion that the combined teachings of the references fail to establish a *prima facie* case of obviousness with regard to the subject matter recited in claim 41, and we will not sustain the rejection of this claim or of the claims that depend therefrom. Since this limitation also appears in independent claims 48 and 55, the same holds true for them and for their dependent claims.

Appeal No. 97-4158
Application No. 08/515,218

The decision of the examiner is reversed.

REVERSED

	IRWIN CHARLES COHEN)	
	Administrative Patent Judge))	
))	
))	
	NEAL E. ABRAMS)	BOARD OF
PATENT	Administrative Patent Judge))	APPEALS AND
))	INTERFERENCES
))	
	JOHN P. McQUADE)	
	Administrative Patent Judge))	

Appeal No. 97-4158
Application No. 08/515,218

Stephen A. Terrile
Skjerven, Morrill, MacPherson, Franklin & Friel
25 Metro Drive, Suite 700
San Jose, CA 95110