

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 36

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte UNA M. QUINLAN

Appeal No. 1997-1271
Application 08/294,765

ON BRIEF

Before THOMAS, HECKER, DIXON, Administrative Patent Judges.

THOMAS, Administrative Patent Judge.

DECISION ON APPEAL

Appellant has appealed to the Board from the examiner's final rejection of claims 1 through 4, 6, 10, 13 through 21, 23, 27, 30 and 31.

Representative claim 1 is reproduced below:

1. A computer system, which comprises:

a first device receiving input data and generating requests, for information relating to the input data, each of a plurality of said requests includes request data and request ownership information;

a second device including an information lookup database comprising a plurality of entries, each one of the plurality of entries containing information relating to a corresponding request; and

a request/response memory coupled to each of the first and second devices to interlock the first and second devices for an exchange of information;

the first device operating to communicate to the second device, via the request/response memory, by said requests for information, each of the plurality of said requests for information, including request data and request ownership information being transmitted in a single write transaction to the request/response memory;

the second device operating to use the request data from each of the plurality of said requests as a lookup index to the lookup database for access to and retrieval of a corresponding one of the entries to generate a response including response data and response ownership information, and to communicate each response to the first device, via the request/response memory, for use by the first device in processing the input data;

the request/response memory comprising a plurality of entries, each of the entries including a request storage memory space for storing a request by the first device and a response storage memory space for storing a corresponding response by the second device, the request storage memory space for each entry being accessible to both the first and second devices;

the request storage memory space of each one of the entries including a first preselected memory location for storage of request ownership information and a second preselected memory location for storage of request data;

the response storage memory space of each one of the entries including a third preselected memory location for storage of response ownership information and a fourth preselected memory location for storage of response data;

wherein the request ownership information of the first preselected memory location indicates whether the request data stored in the respective request storage memory space by the first device is valid for use by the second device and the response ownership information of the respective third preselected memory location indicates whether the

response data stored in the respective response memory space by the second device is valid for use by the first device.

The following references are relied on by the examiner:¹

Bennett et al. (Bennett)	4,897,782	Jan. 30, 1990
Keryvel et al. (Keryvel)	5,249,301 (effective filing date Oct. 25, 1989)	Sep. 28, 1993

Claims 1 through 4, 6, 10, 13 through 21, 23, 27, 30 and 31 stand rejected under 35 U.S.C. § 103. As evidence of obviousness, the examiner relies upon Bennett in view of Keryvel.

Rather than repeat the positions of the appellant and the examiner, reference is made to the briefs and the answers for the respective details thereof.

OPINION

We reverse the rejection of all claims on appeal under 35 U.S.C. § 103.

A study of both Bennett and Keryvel leads us to conclude that it would not have been obvious to the artisan within 35 U.S.C. § 103 to have combined the teachings of Keryvel's broadly defined validity determinations in his ring-based configurations of plural,

¹ The additional references cited by the examiner on page 3 of the principal answer have not been considered since they have not been utilized in formulating any rejection of any claim on appeal.

distributed memories and processors into the cache-based system of Bennett. By the examiner's own admission in the statement of the rejection, Bennett alone is deficient to meet the subject matter of the claims on appeal. The same may be said of Keryvel alone. The examiner's rationale to combine the teachings of Keryvel into Bennett's system are simplistic, speculative, and unpersuasive. The rationale and further explanation of the examiner in the responsive arguments portion of the principal answer and the supplemental answer do not appear to us to be prospective in nature from the combined teachings and suggestions of the references, but based on prohibited hindsight. The architectural nature of the references individually are so discontinuous as to lead the artisan to merely speculate as to their combinability.

On the other hand, assuming for the sake of argument that the references are properly combinable within 35 U.S.C. § 103, key features common to the independent claims grouped by appellant (that is, independent claims 1, 13, 18 and their respective dependent claims as well as dependent claims 6, 14, 15, and independent claims 16, 17, 30 and 31 and their respective dependent claims) could not be met as well. In independent claim 1, the request/response memory stores request storage memory information in a particular space as requested by a first device and response storage memory information in a separate space corresponding to a second device, where this request storage memory space indicates accessibility to both the first and the second

devices. In conjunction with this feature, the “wherein” clause requires that the request ownership information indicate whether the request data stored is valid for use by the second device and, conversely, the response ownership information indicates whether the response data is valid for accessibility by the first device. The examiner simply has not come to grips with at least these functional requirements of independent claim 1 on appeal. Similar recitations are present in independent claim 18 which recites many features in a slightly broader format than independent claim 1. Similarly, even more broadly recited features in independent claim 13 do not appear to be taught or suggested by the combined teachings of the references relied upon by the examiner.

Dependent claim 6 and independent claims 16, 17, 30 and 31 relate to the particular recitation of ownership information comprising OWN_ID information and REQ_ID information with a particular defined interrelationship. Page 8 of the answer indicates that although the examiner has admitted that the combination does not disclose these two validity indicators while still arguing that Keryvel discloses one validity indicator which indicates validity of a request or response, the examiner urges this part of Keryvel performs the functions of both of the claimed ownership information data structures. At page 3 of the supplemental answer, the examiner also urges that it would have been obvious to provide two separate validity indicators to replace the functions performed by Keryvel's one validity indicator. Even if this line of reasoning in both answers was true, the

Appeal No. 1997-1271
Application 08/294,765

examiner's position has not come to grips with the requirements of the relationship of the claimed set and clear states of the two types of ownership information recited.

Additionally, in independent claims 16, 17, 30 and 31, the functional relationship argued by appellant (recited with the language "as a function of") associated with the ownership information of one device with respect to that of the other device has not been addressed by the examiner. As a whole, we are therefore left to speculate how the examiner's positions may be achieved by the respective teachings and suggestions of Bennett and Keryvel even if they were properly combinable within 35 U.S.C. § 103.

Appeal No. 1997-1271
Application 08/294,765

In view of the foregoing, the decision of the examiner rejecting claims 1 through 4, 6, 10, 13 through 21, 23, 27, 30 and 31 under 35 U.S.C. § 103 is reversed.

REVERSED

)	
JAMES D. THOMAS)	
Administrative Patent Judge)	
)	
)	
)	BOARD OF PATENT
STUART N. HECKER)	
Administrative Patent Judge)	APPEALS AND
)	
)	INTERFERENCES
)	
JOSEPH L. DIXON)	
Administrative Patent Judge)	

Appeal No. 1997-1271
Application 08/294,765

JDT/cam
Therese A. Hendricks
Wolf, Greenfield & Sacks, P.C.
Federal Reserve Plaza
600 Atlantic Avenue
Boston, MA 02210-2211