

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte FRANK WALTER PINTERIC and MICHAEL ALAN MAIERS

Appeal No. 2004-0653
Application No. 09/872,053

ON BRIEF

Before COHEN, FRANKFORT, and NASE, Administrative Patent Judges.
FRANKFORT, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 2, 13 and 18 through 34, which are all of the claims remaining in this application. Claims 3 through 12 and 14 through 17 have been canceled.

Appellants' invention is directed to a "system" or "disc drive" that is capable of connecting a 2.5 inch form factor disc drive in a computer environment that is configured to receive a 3.5 inch form factor disc drive. More particularly, the claims on appeal are directed to a 2.5 inch form factor disc drive

Appeal No. 2004-0653
Application No. 09/872,053

having a printed circuit board (PCB) with no more than 40 data contact pads and a male connector having no more than 40 data pins arranged in two rows with a pin pitch of 2.54 mm.

Appellants note that when configured in this manner, the 2.5 inch form factor disc drive has a connector that will mate with the standard female ATA connector that was originally designed to mate with the standard 3-in-1 male connector found on most 3.5 inch form factor disc drives. Thus, the present invention allows a smaller 2.5 inch form factor disc drive, normally found in portable computers, to be connected to the female connector for a 3.5 inch form factor disc drive now found in the majority of desktop computers and servers in use today. Independent claims 1, 13 and 18 are representative of the subject matter on appeal and a copy of those claims may be found in the Appendix to appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

Wu	5,211,459	May 18, 1993
Dague et al. (Dague)	5,865,651	Feb. 2, 1999
Baxter et al. (Baxter)	5,881,454	Mar. 16, 1999
Furay	6,313,984	Nov. 6, 2001
		(filed Jan. 7, 2000)

Appeal No. 2004-0653
Application No. 09/872,053

Claims 1, 13, 18 and 22 through 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Furay in view of Baxter.

Claims 2, 21 and 29 through 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Furay in view of Baxter as applied above, and further in view of Dague.¹

Claims 19, 20 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Furay in view of Baxter as applied above, and further in view of Wu.

Claim 34 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Furay in view of Baxter and Dague as applied to claim 33 above, and further in view of Wu.

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejections and the

¹ We observe that since claims 22 through 27 mentioned in the examiner's first rejection above are dependent from claim 2, it would appear that they should also have been rejected based on the combined teachings of Furay, Baxter and Dague, rather than merely Furay in view of Baxter.

Appeal No. 2004-0653
Application No. 09/872,053

conflicting viewpoints advanced by the examiner and appellants regarding those rejections, we make reference to the final rejection (Paper No. 7, mailed June 21, 2002) and the examiner's answer (Paper No. 12, mailed June 16, 2003) for the reasoning in support of the rejections, and to appellants' brief (Paper No. 11, filed January 21, 2003) and reply brief (Paper No. 13, filed August 18, 2003) for the arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by appellants and the examiner. As a consequence of our review, we have made the determinations which follow.

In rejecting each of independent claims 1, 13 and 18 on appeal under 35 U.S.C. § 103(a) based on the combined teachings of Furay and Baxter, the examiner has found that Furay discloses (Figs. 7-9) a system comprising: a form factor disc drive having a disc drive PCB (155), wherein the drive PCB includes a plurality of data contact pads (col. 4, lines 66-67); and a male

Appeal No. 2004-0653
Application No. 09/872,053

connector (152, 178) including a plurality of data pins (154) and a plurality of data contact pins, with the plurality of data pins being arranged in first and second rows. The examiner further observes that the connector (178) of Furay can be used with a 2.5 inch disc drive (col. 5, lines 34-36), and also contends that the connector may be mounted to the drive in various configurations "including for 3.5-inch environment (col. 5, lines 38-40)" (final rejection, page 2). The examiner's findings as to what is lacking in the Furay reference vis-a-vis appellants' claimed subject matter is that this patent has no explicit disclosure concerning the requirements in appellants' claims on appeal of no more than forty data contact pins and pin pitch of 2.54 mm.

To account for these differences, the examiner turns to Baxter, urging that this patent specifically discloses forty (col. 4, line 19) data pins (48) and a pin pitch of 2.54 mm. From such teachings, the examiner concludes that it would have been obvious to one of ordinary skill in the art at the time appellants' invention was made to "configure the Furay connector as having no more than forty contact data pins and pin pitch of 2.54 mm, as taught by Baxter et al, to use the Furay hard drive in Baxter et al environment" (final rejection, page 3).

Appeal No. 2004-0653
Application No. 09/872,053

After a careful consideration of the teachings in Furay and Baxter, we share appellants' view as expressed in the brief (pages 6-9) and reply brief, and adopt those positions as our own in refusing to sustain the examiner's rejection of claims 1, 13, 18 and 22 through 27 under 35 U.S.C. § 103(a). Like appellants, it is our view that it is only through the use of impermissible hindsight gained from first having read appellants' disclosure and claims that one of ordinary skill in the art at the time of appellants' invention would have attempted any modification of the connector seen in Furay (Figs. 7-9) in light of the 3-in-1 connector seen in Baxter so as to thereby result in a 2.5 inch form factor disc drive and connector like that set forth in appellants' claims on appeal.

Figures 7-9 of Furay appear to show nothing more than what would have been understood by one of ordinary skill in the art as being a conventional connector pin pattern for a 2.5 inch form factor disc drive (note also Figures 11 and 12 of appellants drawings). By contrast, Baxter discloses and shows (col. 4, lines 18-21, and Fig. 4) a 3-in-1 standard type connector for what would appear to be a 3.5 inch form factor disc drive (note also Figures 9 and 10 of appellants' drawings). Simply stated,

Appeal No. 2004-0653
Application No. 09/872,053

due to the clearly different sizes of such drives and connectors, different pin pitch requirements, and different pin arrangements, absent hindsight, one of ordinary skill in the art would not have considered a modification like that urged by the examiner.

Moreover, we find nothing in the prior art relied upon by the examiner or in the knowledge attributable to those of ordinary skill in the art which would have provided any teaching, suggestion, or motivation to devise a 2.5 inch form factor disc drive for use in computing environments already configured for 3.5 inch form factor disc drives. In that regard, we share appellants' view in the reply brief that the examiner's reasoning found in the paragraph bridging pages 2 and 3 of the answer is fraught with speculation and conjecture, and inaccurately characterizes any teaching to be derived from Furay concerning different connectors for a 2.5 inch disc drive and a 3.0 inch disc drive.

For the above reasons, we will not sustain the examiner's rejection of claims 1, 13, 18 and 22 through 27 under 35 U.S.C. § 103(a) as being unpatentable over Furay in view of Baxter.

Appeal No. 2004-0653
Application No. 09/872,053

We have also reviewed the patents to Dague and Wu applied by the examiner against certain of the dependent claims on appeal under 35 U.S.C. § 103(a). However, we find nothing in these references that alters our view of the examiner's basic combination of Furay and Baxter as stated above. Thus, the examiner's rejection of dependent claims 2, 21 and 29 through 33 as being unpatentable over Furay in view of Baxter and further in view of Dague; claims 19, 20 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Furay in view of Baxter as applied above, and further in view of Wu; and claim 34 as being unpatentable over Furay in view of Baxter and Dague as applied above, and further in view of Wu, are also not sustained.

Appeal No. 2004-0653
Application No. 09/872,053

In accord with our above determinations, it follows that the decision of the examiner rejecting claims 1, 2, 13 and 18 through 34 of the present application is reversed.

REVERSED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
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)	
JEFFREY V. NASE)	
Administrative Patent Judge)	

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Appeal No. 2004-0653
Application No. 09/872,053

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