

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

The opinion in support of the decision entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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

Appeal No. 1998-0595
Application 08/461,806¹

ON BRIEF

Before McKELVEY, Senior Administrative Patent Judge, LEE and
SCHAFFER, Administrative Patent Judges.

LEE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's rejection of claims 1-4 and 9. Claims 5-8, 10 and 11 have been canceled. No claim has been allowed.

References relied on by the Examiner

Lewis et al.	5,438,464	August 1, 1995
(Lewis)		filed April 23, 1993

¹ Application for patent filed June 5, 1995. According to the appellant, this is a divisional application of application 08/119,915, filed September 10, 1993, now issued as patent No. 5,491,593, granted February 13, 1996.

The Rejection on Appeal

Claims 1-4 and 9 stand finally rejected under 35 U.S.C. § 102(e) as being anticipated by Lewis. Claim 1 is the sole independent claim. Claims 2-4 and 9 depend either directly or indirectly from claim 1.

The Invention

The claimed invention is directed to a synchronizing control system for an array of disk drive data storage devices. Independent claim 1 is reproduced below:

1. A synchronizing control system for an array of disk drive data storage devices comprising

a plurality of disk drives,

each said disk drive including a disk spindle assembly driven by a spindle motor, an oscillator assembly that supplies a precision index signal, switch means connecting said precision index signal to an index input line, and a spindle motor control circuit connected to said index input line, said spindle motor control circuit including means for regulating said disk spindle assembly speed and synchronizing said disk spindle assembly with the index signal on said index signal input line;

a common line interconnecting the index input lines of each of said plurality of disk drives;

a bus interconnecting each of said plurality of disk drives; and

means for activating one and only one of said switch means during synchronized operation of said plurality

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of disk drives in response to a spindle synchronization command on said bus, whereby the oscillator assembly connected to said one switch means becomes the master which provides the index signal to all of said plurality of disk drives.

Opinion

The anticipation rejection of claims 1-4 and 9 cannot be sustained. A reversal of the rejection on appeal should not be construed as an affirmative indication that the appellant's claims are patentable over prior art. We address only the positions and rationale as set forth by the examiner and on which the examiner's rejection of the claims on appeal is based.

According to claim 1, a plurality of disk drives are connected to each other by a bus. Each disk drive includes a means for activating a switch means in response to a spindle synchronization command on the bus. An oscillator assembly activated by the switch means causes the associated disk drive to become a master relative to the other disk drives. The key to this appeal is the claimed feature of the presence of a spindle synchronization command on a bus which connects all of the disk drives.

The examiner acknowledges that Lewis does not expressly show a spindle synchronization command on a bus that connects

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all the disk drives. (Answer at page 4, paragraph 13).
However, the examiner states that the "spindle synchronization command limitation" is found in column 5, line 51 through column 6, line 9 of Lewis, and that "this" use of a bus is intrinsic to the operation of Lewis. (Answer at page 4, paragraph 13). The examiner further cites case law for the proposition that a reference nonetheless anticipates a claim if it discloses the appellant's claimed invention in a manner such that a skilled artisan could take [the reference]'s teachings "in combination with his knowledge of the prior art and can be in possession of the invention." (Emphasis in original.)

We have reviewed the cited portions of Lewis and cannot agree with the examiner that the "spindle synchronization command limitation" is found in column 5, line 51 through column 6, line 9 of Lewis. The cited text refers to five bits in the diagnostic and control register 34 of the spindle synchronizer 20 of each disk drive, one of which, the bit M_D, determines whether the associated disk drive acts as the master disk drive for all the other disk drives or merely as a

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slave disk drive. Note that in column 8, lines 7-10, of Lewis, it is stated:

The M_D bit controls the driver 50 used to drive the signal MASTER REF. This bit is programmed to "ZERO" in master disk drive 10, and to "ONE" in a slave disk drive 12."

The five bits of the diagnostic and control register do not constitute a spindle synchronization command for the plurality of disk drives. The register is in the spindle synchronizer 20 and thus is internal to each disk drive. Each disk drive has its own diagnostic and control register. If anything, the contents of the register merely reflect the end result of the execution of a spindle synchronization command if there ever was a spindle synchronization command for all of the disk drives. As is indicated in the above-quoted text, the M_D bit in the diagnostic and control register within the spindle synchronizer 20 of each disk drive was previously programmed. To the extent that such prior programming constitutes a spindle synchronization command, the examiner has not explained why programming through a common bus would have been inherent. The examiner finds that "this use of a bus in Lewis et al. is intrinsic to its operation" (Answer at

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page 4) but fails to give the necessary explanation. Why would it be intrinsic? Why would it have been necessarily so that the programming is performed over a common bus? Why couldn't each diagnostic and control register be programmed separately over different paths and also at different times? We decline to speculate on the various possible manners in which the many registers may be programmed.

Anticipation is established only when a single prior art reference discloses, either expressly or under the principles of inherency, each and every element of the claimed invention. In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431 (Fed. Cir. 1997); In re Spada, 911 F.2d 705, 708 15 USPQ2d 1655, 1657 (Fed. Cir. 1990); RCA Corp. v. Applied Digital Data Sys., Inc., 730 F.2d 1440, 1444, 221 USPQ 385, 388 (Fed. Cir. 1984). See also In re King, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co., 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). The prior art reference must either expressly or inherently describe each and every limitation in a claim. Verdegaal Bros. v. Union Oil Co., 814

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F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir.), cert. denied,
484 U.S. 827 (1987).

Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.

Continental Can Co. USA, Inc. v. Monsanto, 948 F.2d 1264, 1268-69, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991).

The decision of the Court of Appeals for the Federal Circuit in In re LeGrice, 301 F.2d 929, 938-39, 133 USPQ 365, 373-374 (CCPA 1962), cited by the examiner, is not apposite. That case concerns the scope of enabling disclosure of a prior art reference for purposes of an anticipation rejection. The underlying premise was that the prior art reference already describes what the appellant's claim recites. The question in doubt was whether one with ordinary skill in the art would have known how to make that which has been described. In this case, the issue is not whether one with ordinary skill in the art would have known how to put a spindle synchronization command on a common bus if directed to do so, but whether the prior art Lewis reference describes the goal or objective of

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putting a spindle synchronization command on a bus which connects all of the disk drives together.

As for the Federal Circuit's decision in In re Graves, 69 F.3d 1147, 36 USPQ2d 1697 (Fed. Cir. 1995), cert. denied, 116 S.Ct. 1362 (1996), which the examiner also cited, it appears that the examiner is relying on the notion that what is otherwise known to one with ordinary skill in the art need not be described in a prior art reference. That, however, does not help the examiner's position here, because the examiner has made no demonstration based on evidence in the record that putting a spindle synchronization command on a bus commonly connected to all disk drives was known to one with ordinary skill in the art.

For the foregoing reasons, the rejection of claims 1-4 and 9 cannot be sustained.

Conclusion

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The rejection of claims 1-4 and 9 under 35 U.S.C.
§ 102(e) as being anticipated by Lewis is reversed.

REVERSED

FRED E. MCKELVEY, Senior)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
RICHARD E. SCHAFER)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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