

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KELAN C. SILVESTER

Appeal 2007-2924
Application 09/972,333
Technology Center 2600

Decided: January 8, 2008

Before MAHSHID D. SAADAT, ROBERT E. NAPPI,
and MARC S. HOFF, *Administrative Patent Judges*.

NAPPI, *Administrative Patent Judge*.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 6(b) (2002) of the final rejection of claims 1 through 3, 6, 7, 9, 11 through 13, 16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42.

We affirm the Examiner's rejections of these claims.

INVENTION

The invention is directed to a method of saving power in a system which reads data stored on a disk. The method spins the disk and reads the

entire contents of the disk into memory of the system. See pages 1 and 4 of Appellant's Specification. Claim 1 is representative of the invention and reproduced below:

1. A method comprising:
reading, at one time, the entire contents of a rotating disk in a drive and buffering those contents in a semiconductor randomly accessible storage device; and
turning off the rotating disk drive.

REFERENCES

Birrell	US 6,332,175 B1	Dec. 18, 2001
Watkins	US 6,609,173 B1	Aug. 19, 2003

REJECTIONS AT ISSUE

Claims 1 through 3, 6, 7, 9, 11 through 13, 16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Birrell in view of Watkins.

Throughout the opinion, we make reference to the Brief (received January 3, 2006), Reply Brief (received May 5, 2006) and the Answer (mailed March 21, 2006) for the respective details thereof.

ISSUES

Appellant contends that the Examiner's rejection of claims 1 through 3, 6, 7, 9, 11 through 13, 16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42 under 35 U.S.C. § 103(a) is in error. Appellant argues that claim 1 recites "reading, at one time, the entire contents of a rotating disk in a drive and buffering those contents in a

semiconductor randomly accessible storage device,” which is not taught by the combination of the references. Appellant reasons that although Watkins teaches that a semiconductor storage device could replace a compact disk, Watkins does not discuss how the information is transferred to the semiconductor storage device. (App. Br. 10). Further, Appellant argues that Birrell cannot transfer the whole contents of the disk to a semiconductor storage device at one time and that the combination with Watkins does not teach so modifying Birrell. (App. Br. 10-11). Additionally, Appellant argues that it does not matter whether the disk is full or not, as the art does not teach transferring everything on the disk in one transfer. (Reply Br. 1).

The Examiner states on pages 3 and 4 of the Answer:

The reference of BIRRELL et al discloses all the feature as claimed in the claims invention such as reading the content of a rotating disk and buffering those contents in a semiconductor randomly accessible storage device and turning off the disk drive (see column 2, line 60 to column 3, line 2. In this case, after completing store the contents of the disk to semiconductor randomly accessible storage device, the audio player turns off the power). However, the semiconductor randomly accessible storage device is not having enough capacity for storing entire contents of a disk (it is noted that the languages of " entire contents of a rotating disk " is not always means to the whole capacity of the disk, for example, the capacity of CD is 640 MB, but if the CD stored only one or two songs then the semiconductor randomly accessible storage device RAM 108 in BIRRELL et al is capable of reading “entire contents of a rotating disk” at one time as claimed. See BIRRELL et al.'s column 6, lines 43-58).

Thus, the contentions of Appellant present us with the issue of whether the combination of the references teaches reading, at one time, the entire contents of a rotating disk in a drive, and buffering those contents in a semiconductor randomly accessible storage device, as recited in the claims.

Appellant's arguments on pages 10 and 11 of the Brief, are directed to claims 1 through 3, 6, 7, 9, 11 through 13, 16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42 as a group. Thus, in accordance with 37 C.F.R. § 41.37 (c)(1)(vii) we group claims 1 through 3, 6, 7, 9, 11 through 13, 16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42 together and select claim 1 as representative of the group.

FINDINGS OF FACT

1. Birrell teaches a portable audio player that stores a large amount of compressed audio data. Abstract.
2. Birrell's audio player includes both a hard disk drive and a memory buffer. (Col. 2, ll. 60-62).
3. Birrell teaches that the audio data files are stored on the hard disk drive. (Col. 3, ll. 42-44).
4. The audio files can be individually loaded onto the hard disk drive by the user. (Col. 4, ll. 61-63).
5. The hard disk drive has a capacity much larger than the memory, i.e., disk is 4 gigabytes (65 hours of compressed audio) and memory 10 megabytes (10 minutes of audio). (Col. 6, ll. 43-49).
6. The audio player loads a portion of data from the hard disk drive into the memory buffer and turns the hard drive off. This allows the device to use less power. (Col. 3, ll. 44-45).
7. The transfer of data is controlled by the control logic which determines *whether* and how much additional data is required by the memory buffer to play the selected audio, i.e. the logic loads enough of the selected audio into the buffer to play the selected

audio for several minutes and after a time period will if necessary load additional audio to the Buffer. (Col. 6, ll. 10-13).

8. Watkins teaches a compact disk emulation system which reads data from a compact disk and stores all of the information in a compressed format in solid state memory. (Abstract).

PRINCIPLES OF LAW

On the issue of obviousness, the Supreme Court has recently stated that “the obviousness analysis cannot be confined by a formalistic conception of the words teaching, suggestion, and motivation.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007). Further, the Court stated “[t]he combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results.” *KSR Int’l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1739 (2007).

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability. For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill. . . . [A] court must ask whether the improvement is more than the predictable use of prior art elements according to their established functions.

Id. at 1740. “One of the ways in which a patent’s subject matter can be proved obvious is by noting that there existed at the time of the invention a known problem for which there was an obvious solution encompassed by the patent’s claims.” *Id.* at 1742.

ANALYSIS

Independent claim 1 recites “reading, at one time, the entire contents of a rotating disk in a drive and buffering those contents in a semiconductor randomly accessible storage device.” We note that claim 1 does not recite that this operation is always performed, but rather that a system will perform the function. Further, we note that the claim recites that the contents of the rotating disk are read, thus the size of the data file (contents) being transferred from the disk is not the capacity of the disk, but rather the size of the data files (contents) on the disk.

We next consider the teachings of Birrell. The disk capacity in Birrell is much greater than the memory in Birrell. (Fact 5). However, Birrell identifies that the disk stores audio data. (Fact 3). Birrell teaches that the audio data is loaded on to the disk by the user. (Fact 4). Thus, the contents (and size of the contents) of the audio on the disk in Birrell is determined by the user. If the user only loads one song of less than 10 minutes duration on to the audio player, the contents of the hard disk drive will be one audio file of less than 10 minutes duration. Birrell teaches that the amount of data loaded from the disk to the memory buffer is dependent upon the amount of information needed by the memory buffer. (Fact 7). Thus, we find that, when there is only one song of less than 10 minutes duration loaded on the hard drive of Birrell’s device, the audio player will load the entire contents of the hard drive to the semiconductor memory. We consider this operation of Birrell to be a predictable operation of Birrell’s device. Therefore, we do not find error in the Examiner’s rejection of claim 1. As Appellant has not presented separate arguments directed to claims 2, 3, 6, 7, 9, 11 through 13,

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16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42,
we similarly do not find error in the Examiner's rejection of these claims.

CONCLUSION

Appellants' arguments have not persuaded us of error in the Examiner's rejection of claims 1 through 3, 6, 7, 9, 11 through 13, 16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42. Accordingly, we affirm the Examiner's rejections of claims 1 through 3, 6, 7, 9, 11 through 13, 16, 17, 19, 21 through 23, 26 through 29, 31 through 38, and 40 through 42.

ORDER

The decision of the Examiner is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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