UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Ex parte CHARLES A. LESBURG, MICHAEL CABLE, ZHI HONG, ANTHONY F. MANNARINO, and PATRICIA C. WEBER

Appeal 2007-1164
Application 10/170,131
Technology Center 1600

Decided: May 31, 2007

Before TONI R. SCHEINER , ERIC GRIMES, and RICHARD M. LEBOVITZ , *Administrative Patent Judges*.

GRIMES, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 involving claims to a computer comprising specific data. The Examiner has rejected the claims as obvious. We have jurisdiction under 35 U.S.C. § 6(b). Because we agree with the Examiner that the patentability of a computer does not depend on the data stored in it, we affirm.

BACKGROUND

The Specification discloses "crystals of a hepatitis C virus RNA dependent RNA polymerase called NS5B" (Specification 1). The Specification also describes experiments in which the crystals were used to determine the three-dimensional structure of the NS5B polymerase (pages 19-24) and the spatial coordinates of its constituent atoms (Table 1, pages 25-53).

DISCUSSION

1. CLAIMS

Claims 24 and 26 are pending and on appeal. The claims have not been argued separately and therefore stand or fall together. 37 C.F.R. § 41.37(c)(1)(vii). Claim 24 is the only independent claim and reads as follows:

> 24. A computer for producing a three-dimensional representation of a molecule, wherein said molecule comprises an hepatitis C virus (HCV) NS5B polypeptide, wherein said NS5B polypeptide comprises SEQ ID NO: 1 with valine at position 335, alanine at position 344, and glutamine at position 550 and is defined by structure coordinates set forth in Table 1, and wherein said computer comprises:
>
> (a) a machine-readable data storage medium comprising a data storage material encoded with machine-readable data, wherein said data comprises the structure coordinates of Table 1;
>
> (b) a working memory for storing instructions for processing said machine-readable data;
>
> (c) a central-processing unit coupled to said working memory and to said machine-readable data storage medium for processing said machine readable data into said three-dimensional representation; and

> (d) a display unit coupled to said central-processing unit for displaying said three-dimensional representation.

The storage medium, working memory, central processing unit, and display recited in claim 24 are components of any run-of-the-mill computer. The only potential differences between claim 24 and other computers reside in the preamble and in the data contained in the storage medium.

The preamble of claim 24 states that the computer is "for producing a three-dimensional representation of . . . an hepatitis C virus (HCV) NS5B polypeptide . . . defined by structure coordinates set forth in Table 1." This preamble language does not further limit the claim, however, because the body of the claim states that the storage medium of the claimed computer contains "data compris[ing] the structure coordinates of Table 1." "If the preamble adds no limitations to those in the body of the claim, the preamble is not itself a claim limitation and is irrelevant to proper construction of the claim." *IMS Technology, Inc. v. Haas Automation, Inc.*, 206 F.3d 1422, 1434, 54 USPQ2d 1129, 1137 (Fed. Cir. 2000).

The other distinction between the computer of claim 24 and other computers is the focus of this appeal: does the limitation that the claimed computer "comprises . . . a data storage material encoded with . . . data compris[ing] the structure coordinates of Table 1" patentably distinguish the claimed computer from those in the prior art?

2. PRIOR ART

The Examiner relies on the following reference:

Kim	US 6,183,121 B1	Feb. 6, 2001

3. OBVIOUSNESS

Claims 24 and 26 stand rejected under 35 U.S.C. § 103 as obvious in view of Kim. The Examiner points to Kim's disclosure of "a computer comprising a machine-readable data storage medium, a working memory, a central processing unit, and a display for generating a three-dimensional representation of HCV helicase. See particularly claim 1 and Figure 2" (Answer 4). The Examiner acknowledges that Kim "does not teach machine-readable data comprising the structure coordinates of Table 1," but concludes that "the machine-readable data required by the claimed computer is given no patentable weight as it is considered to be non-functional descriptive material" under *In re Gulack*, 703 F.2d 1381, 217 USPQ 401 (Fed. Cir. 1983) (Answer 4).

We agree with the Examiner's analysis and conclusion.

Appellants do not dispute that Kim's computer differs from that of claim 24 only in the contents of the stored data. Appellants argue, however, that under *In re Lowry*, 32 F.3d 1579, 32 USPQ2d 1031 (Fed. Cir. 1994), the data recited in claim 24 should be considered functional descriptive material:

> [T]he *Lowry* panel noted that since *Gulack* and other printed matter cases related to "'arrangements of printed lines or characters, useful and intelligible only to the human mind'", these cases had "no factual relevance" to a claimed invention in which the information is "'processed not by the mind but by a machine, the computer.'"

> As in *Lowry*, the structural coordinates stored within the presently claimed computer are processed by the computer; indeed, they are essentially unintelligible to the human mind, and should not be considered as mere printed matter. Thus, under the logic of *In re Lowry*, the Patent Office improperly relies on *In re Gulack*, in not according the structural coordinates patentable weight.

(Br. 6-7, footnote omitted.)

We disagree with Appellants' reading of *Lowry*. We agree instead with the Examiner that

> *Lowry* is not analogous to the instant case. . . . [T]he Court held that . . . "Lowry's ADOs do not represent merely underlying data in a database." In other words, because Lowry's ADOs were *functionally interrelated* with the memory of the computer to increase computer efficiency, the data were not held to be merely non-functional descriptive material. In contrast to *Lowry*, the data of Table 1 have no such functional relationship with the computer.

(Answer 8-9.)

Appellants also argue that the data recited in claim 24 is functional descriptive matter under *In re Ngai*, 367 F.3d 1336, 70 USPQ2d 1862 (Fed. Cir. 2004):

> The machine readable structural coordinates enable the computer to display a three-dimensional representation of the HCV NS5B protein. . . . The encoded structural coordinates, being unintelligible to the human mind, could not achieve this utility without the computer, and the computer would similarly be unable to achieve this utility without the structural coordinates. Thus, since the computer and structural coordinates have an interdependent functional relationship, the reasoning of *In re Ngai* compels a finding that the structural coordinates can not be ignored in an obviousness rejection simply because they do not perform the specific function of

> "imposing a change in the processing steps performed by the computer."

(Br. 7-8.)

Again, we think the Examiner's view of the case law is the better one:

> The structural coordinates as recited in claim 24 are analogous to the instructions in *In re Ngai*. The *Ngai* Court held that "the printed matter in no way depends on the kit, and the kit does not depend on the printed matter." Similarly, the recited structural coordinates are not functionally related to the computer because the computer functions the same way regardless of whether the machine readable medium of the computer comprises the structural coordinates of Table 1 or not.

(Answer 11.)

Finally, Appellants argue that "there are strong public policy reasons for reversing the obviousness rejection" (Br. 8). Specifically, Appellants argue that the rejection "would prevent the Appellants from realizing the full benefit of the exclusionary rights" to their invention (*id.*) and "the present rejection would also place in question the validity of any patents . . . granted by the Patent Office before it published its present policy" (*id.* at 9).

Neither of Appellants' policy-based rationales compel reversing the rejection. As to the first point, the limits of an inventor's patent rights are determined by the patent laws, as interpreted by the courts. The USPTO's role is to administer those laws, as interpreted, as accurately as it can. As we read the court's interpretation of the law, Appellants' "exclusionary rights" to their invention do not extend to the computer defined by claim 24.

As to the second point, the USPTO's mission to accurately apply the patent laws requires it to review and adjust its examination standards now and then. Sometimes, that will result in rejections of subject matter that

previously may have been allowed. In the end, the standards applied by the USPTO can be reviewed by the U.S. Court of Appeals for the Federal Circuit (and, potentially, the U.S. Supreme Court). Any patent applicant who is dissatisfied with the USPTO's examination standards can request the Federal Circuit to reverse a rejection made under those standards. Thus, any uncertainty caused by changes in an examination standard can be promptly dispelled by an appeal to the Federal Circuit.

SUMMARY

We agree with the Examiner that the data recited in claim 24 do not patentably distinguish the claimed computer from the computer disclosed by Kim. We therefore affirm the rejection of claim 24. Claim 26 falls with claim 24.

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) (2005).

AFFIRMED

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