

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

Ex parte GEOFFREY B. RHOADS

---

Appeal No. 2003-0274  
Application 09/476,460

---

ON BRIEF

---

Before HAIRSTON, BARRETT, and RUGGIERO, Administrative Patent Judges.

HAIRSTON, Administrative Patent Judge.

DECISION ON APPEAL

This appeal<sup>1</sup> involves claims 2 through 9.

The disclosed invention relates to a method of decoding information steganographically encoded within an image.

---

<sup>1</sup> Although claims 1 through 10 are pending in this application, appellant has chosen to limit the appeal to claims 2 through 9 (brief, page 4).

Appeal No. 2003-0274  
Application No. 09/476,460

Claims 1, 2, 5 and 9 read as follows:

1. A method of decoding information steganographically encoded within an image, the method including:

receiving a set of input data that represents the image in the pixel domain; and

performing a domain transformation on the input data to produce transformed data that represents the image in a different domain.

2. The method of claim 1 that further includes computing a power spectrum of the transformed data.

5. The method of claim 1 that includes performing a matched filtering operation on data that is related to said transformed data.

9. The method of claim 1 in which the information is graticule information by which the scale and rotation of the image from an initial state can be discerned.

The references relied on by the examiner are:

Bloomberg et al. (Bloomberg) 5,091,966 Feb. 25, 1992

Sheng et al. (Sheng), "Experiments on pattern recognition using invariant Fourier-Mellin descriptors," Journal of Optical Society of America, Vol. 3, No. 6, June 1986, pages 771 through 776.

Short, "Steps Toward Unmasking Secure Communications," International Journal of Bifurcation and Chaos, Vol. 4, No. 4, August 1994, pages 959 through 977.

Claims 2 through 9 stand rejected under the second paragraph of 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter which appellant regards as the invention.

Appeal No. 2003-0274  
Application No. 09/476,460

Appeal No. 2003-0274  
Application No. 09/476,460

Claim 9 stands rejected under 35 U.S.C. § 102(b) as being anticipated by Sheng.

Claims 2 through 4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sheng in view of Short.

Claims 5 through 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Sheng in view of Bloomberg.

Reference is made to the briefs (paper numbers 16, 19 and 23) and the answer (paper number 22) for the respective positions of the appellant and the examiner.

#### OPINION

We have carefully considered the entire record before us, and we will reverse all of the rejections of record.

Turning first as we must to the indefiniteness rejection, the examiner is of the opinion (answer, pages 3 through 5) that claims 2 through 9 are indefinite because claim 1 recites decoding in the preamble but not in the two method steps of this claim. Appellant argues (supplemental brief, pages 3 and 4) that:

The law is well settled that a claim needn't be a recipe of an entire method. It can be drawn to a novel sub-combination of operations used in a method. That is the case with claim 1. The Examiner's rejection on this point is ill-founded, and should be overturned.

Moreover, it will be recognized that the dependent

Appeal No. 2003-0274  
Application No. 09/476,460

claims further define the subcombination - some of them introducing operations that clearly demonstrate use in a decoding method.

We agree with the appellant's arguments. The indefiniteness rejection of claims 2 through 9 is reversed because the examiner has not proven that the claims are indefinite merely because the term "decoding" is not expressly recited in the two method steps of claim 1.

Turning next to the anticipation rejection of claim 9, we agree with the appellant's arguments (supplemental brief, page 4) that "Sheng teaches use of the Fourier-Mellin<sup>2</sup> technique in pattern matching applications," but does not mention "information steganographically encoded within an image." The examiner's contentions (answer, pages 5 and 6) to the contrary notwithstanding, Sheng does not disclose steganographically encoded information or graticule information within an image. Thus, the anticipation rejection of claim 9 is reversed because Sheng does not disclose every limitation of claim 9.

Turning next to the obviousness rejection of claims 2 through 4, we agree with the appellant's arguments (supplemental

---

<sup>2</sup> Appellant's disclosure states that "the Fourier-Mellin transform is well suited for use in . . . pattern matching problems" (specification, page 82).

Appeal No. 2003-0274  
Application No. 09/476,460

brief, page 5) that "Short concerns detection of communications made using chaotic-carrier based spread spectrum systems," and, like Sheng, is not concerned with steganographically encoded information within an image. Accordingly, the obviousness rejection of claims 2 through 4 is reversed.

Turning lastly to the obviousness rejection of claims 5 through 8, we agree with the appellant's argument (supplemental brief, page 5) that neither Sheng nor Bloomberg is concerned with steganographically encoding information within an image. For this reason, the obviousness rejection of claims 5 through 8 is reversed.

#### DECISION

The decision of the examiner rejecting claims 2 through 9 under the second paragraph of 35 U.S.C. § 112 is reversed, the decision of the examiner rejecting claim 9 under 35 U.S.C.

Appeal No. 2003-0274  
Application No. 09/476,460

§ 102(b) is reversed, and the decision of the examiner rejecting claims 2 through 8 under 35 U.S.C. § 103(a) is reversed.

REVERSED

KENNETH W. HAIRSTON	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
LEE E. BARRETT	)	APPEALS AND
Administrative Patent Judge	)	INTERFERENCES
	)	
	)	
	)	
JOSEPH F. RUGGIERO	)	
Administrative Patent Judge	)	

KWH:svt

Appeal No. 2003-0274  
Application No. 09/476,460

DIGIMARC CORPORATION  
19801 SW 72nd Avenue  
Suite 100  
Tualatin, OR 97062