

THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

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(2) is not binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YUZO MURAYAMA
and NAOHIKO ISHIMARU

Appeal No. 96-0311
Application 08/155,771¹

HEARD: Jan. 13, 1999

Before THOMAS, KRASS, and BARRETT, Administrative Patent
Judges.

KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of
claims 1, 2, 4 and 5. Claim 3 has been cancelled.

¹ Application for patent filed November 23, 1993.

Appeal No. 96-0311
Application No. 08/155,771

The invention pertains to a magnetic disk and a glass substrate therefor. More particularly, the problems associated with bent portions of the substrate resulting from the deformation of a polishing pad are eliminated by providing for certain maximum deflections of the bent portions with respect to certain reference lengths.

Independent claim 1 is reproduced as follows:

1. A magnetic disk comprising a glass substrate and a magnetic layer formed on the glass substrate wherein the maximum deflection of any bent portion in the radial direction of the magnetic disk with respect to a reference length of 2 mm is not more than $1,500D$ in the entire region of the surface of the disk excluding annular areas having a width of $250Fm$ which are respectively defined inwardly from annular lines at which chamfered portions formed at the inner and outer peripheries of the magnetic disk and the disk surface intersect.

The examiner relies on the following references:

Uehara et al. (Uehara) (JP)	4-353619 ²	Dec. 8, 1992
Kojima et al. (Kojima) (JP)	5-89459 ²	Apr. 9, 1993

² Our understanding of these references is derived from English translations thereof, said translations being part of the record in this application.

Appeal No. 96-0311
Application No. 08/155,771

Claims 1, 2, 4 and 5 stand rejected under 35 U.S.C. § 112, first paragraph, as relying on a nonenabling disclosure. Claims 1, 2, 4 and 5 stand further rejected under 35 U.S.C. § 103 as unpatentable over Uehara and Kojima.

Rather than reiterate the arguments of appellants and the examiner, reference is made to the briefs and answer for the respective positions thereof.

OPINION

We turn first to the rejection of claims 1, 2, 4 and 5 under 35 U.S.C. § 112, first paragraph.

The examiner contends (pages 3-4 of the answer) that the disclosure is not adequate for the three specific example deflection values disclosed (333, 1000, and 1500D), and...that the disclosure is not adequate for deflection values much less than the lowest of the deflection values disclosed (333D) down to zero as would be encompassed by the recitations in the claims of "not more than 1,500D" or "at most 1,500D".

First, the examiner does not state for what purpose the disclosure is alleged to be "not adequate."

We presume that the examiner is making a rejection under the enablement clause of the first paragraph of 35 U.S.C. § 112 and is alleging that the disclosure would not have enabled

Appeal No. 96-0311
Application No. 08/155,771

the artisan to make and use the claimed magnetic disk having the recited maximum deflection values.

We will not sustain this rejection because the examiner has the burden to establish a reasonable basis for challenging the sufficiency of the disclosure under 35 U.S.C. § 112, first paragraph, and, it is our view, the examiner has not established such a reasonable basis.

Pages 8-11 of the specification and Table 1 at page 12 thereof disclose the necessary polishing and the properties of the polishing pads, e.g., compressibility and moduli of elasticity factors etc. which should be employed in order to reach the intended result. It would appear that with the relatively high level of skill in this art that the artisan would have had no problem in following the examples set forth in the specification. The examiner has pointed to nothing specifically that would have made the disclosure nonenabling for the skilled artisan. Therefore, since no reasonable basis is set forth by the examiner for challenging the sufficiency of the instant disclosure, we will not sustain the rejection.

Appeal No. 96-0311
Application No. 08/155,771

With regard to the examiner's position with regard to the adequacy of the disclosure pertaining to deflection values down to zero, appellants are not required to disclose every possible (and impossible) value and ways of obtaining those values. A deflection of zero is ideal and unobtainable as a practical matter. But appellants have clearly disclosed how to obtain deflections below the 1500 Angstrom level and there is clearly adequate disclosure for the subject matter claimed. Again, we will not sustain the rejections under 35 U.S.C. § 112, first paragraph.

We now turn to the rejection of claims 1, 2, 4 and 5 under 35 U.S.C. § 103. We also will not sustain this rejection.

Before comparing the instant claimed subject matter to the applied prior art, we ascertain what is encompassed by the claimed subject matter. Independent claim 1 recites, inter alia, that "the maximum deflection of any bent portion...with respect to a reference length of 2 mm is not more than 1,500D in the entire region of the surface...excluding annular areas..." having a certain width. While we find "bent" to be an awkward word in the context of the present invention, we

Appeal No. 96-0311
Application No. 08/155,771

understand, from the instant disclosure and the explanation of counsel at the hearing of January 13, 1999, that this term is applied to describe deformities on the disk, as in portions either raised or lowered with respect to an ideal flat, smooth surface, between inner and outer peripheries of the disk, thus excluding the peripheral edges of the disk from being described as "bent." Further, a "reference length" is defined, at page 6 of the specification, as the "linear line AB" wherein the linear line AB is shown in Figure 1 as the shortest distance between two points A and B on a curve 1 representing a "bent portion" of the disk. The greatest value of deflection of the curved line is called the "maximum deflection" and this is shown as "2" in Figure 1. Although not described as such in the disclosure, counsel identified reference length AB as a "chord." Thus, if a "chord," or line, is drawn from any point on the curve of a deformation on the surface of the disk to any other point on the deformity curve, that "chord," or line, is what is referred to as the "reference length" and the "greatest value of the deflection" is the length of a line drawn perpendicular from the reference length to the maximum point on the curve of the deformity. As

Appeal No. 96-0311
Application No. 08/155,771

described at page 6 of the specification, "a bent portion of the magnetic disk is defined in terms of the reference length and the maximum deflection."

We construe the instant claimed subject matter in accordance with the definitions supra. With these constraints in mind, we find that neither of the applied references makes the instant claimed subject matter unpatentable since both references are directed to surface bends at the edges of the magnetic disk, i.e., only at the outermost peripheral portion of the disk, and are not concerned with "bends" in other portions of the disk. Independent claim 1 is very specific that the "bent portion" of the claimed subject matter excludes these outermost peripheral portions of the disk. Instant claim 1 excludes all portions of the disk within 250 micrometers of the edge (as well as those portions within 250 micrometers of the inner periphery of the disk). Therefore, we find no teaching or suggestion of any kind, in either Uehara or Kojima, which would render the claimed subject matter unpatentable within the meaning of 35 U.S.C. § 103.

Appeal No. 96-0311
Application No. 08/155,771

Further, neither Uehara nor Kojima suggests, in any way, the "reference length," as claimed and as construed supra. There is nothing in either of these references suggesting any "reference length" (especially one of 2mm in length, as claimed) from one point on a deformity curve to another point on the deformity curve wherein the region of interest excludes annular areas of the disk having a width of 250 micrometers from the inner and outer peripheries of the magnetic disk. The references and the instant claimed subject matter are clearly interested in deformities, or "bent portions" of the magnetic disk in different, mutually exclusive, areas of the magnetic disk and we find nothing in the former to suggest the latter.

Accordingly, the examiner's decision rejecting claims 1, 2, 4 and 5 under 35 U.S.C. 103 and under 35 U.S.C. § 112, first paragraph, is reversed.

REVERSED

Appeal No. 96-0311
Application No. 08/155,771

	James D. Thomas)	
	Administrative Patent Judge)	
)	
)	
)	
	Errol A. Krass)	BOARD OF
PATENT)	
	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
	Lee E. Barrett)	
	Administrative Patent Judge)	

tdc

Appeal No. 96-0311
Application No. 08/155,771

Oblon, Spivak, McClelland,
Maier & Neustadt
1755 Jefferson Davis Highway
Fourth Floor
Arlington, VA 22202