

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 26

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte YOUNG W. LEE

Appeal No. 96-3388
Application No. 08/036,857¹

HEARD: July 15, 1998

Before KRASS, FLEMING and BARRY, Administrative Patent Judges.
BARRY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal under 35 U.S.C. § 134 from the final rejection of claims 8 and 9. We reverse.

¹ The application, entitled "Optical Pickup Lens Cleaning Device for Double-Sided Disk Player," was filed March 25, 1993. The application claims the foreign filing priority benefit under 35 U.S.C. § 119 of Korean Patent Application No. 92-17755, which was filed on September 29, 1992.

BACKGROUND

The invention at issue in this appeal relates to cleaning the optical pickup lens of a double-sided disk player. Conventionally a double-sided disk player includes an optical pickup assembly that is vertically movable to access the upper and lower sides of a disk being played. This permits a single pickup assembly to record or reproduce signals from opposite sides of the disk. The pickup assembly requires periodic cleaning to remove foreign particles from its lens.

The invention eliminates the need for a separate lens cleaning process. It automatically cleans the lens when the lens is moved from one side of the disk to the other. More specifically, the lens is cleaned continuously by a brush while the pickup assembly is being moved.

Claim 8, which is representative for our purposes, follows:

8. An optical pickup lens cleaning device for a double-sided disk player for recording desired signals on each side of the double-sided disk or reproducing desired signals from each side of the double-sided disk, the disk player including first

and second, parallel rack gears respectively disposed on opposite sides of said disk, a semi-circular rack gear interconnecting corresponding ends of said first and second rack gear, said first and second rack gear and said semi-circular rack gear constituting a continuous U-shaped gear path, an optical pickup assembly disposed on said gear path and being movable from one side of said disk to opposite side thereof, said pickup assembly including an optical lens and drive means for driving said pickup assembly along said gear path, the optical pickup lens cleaning device comprising:

means, disposed proximate a center of an arc of the semicircular rack, for cleaning the lens of said optical pickup assembly during its movement from said one side to said opposite side, wherein said lens cleaning means includes a fixed shaft connected at opposite sides thereof to a fixed frame and a brush rotatably disposed on said shaft.

The references relied on by the patent examiner in rejecting the claims follow:

Okamoto et al. (Okamoto)	5,157,648	Oct. 20, 1992
Kusaura (Japanese Patent)	2-193330	Jul. 31, 1990
Takei et al. (Takei) (Japanese Patent)	H4-82001	Mar. 16, 1992

Claims 8 and 9 stand rejected under 35 U.S.C. § 103 as obvious over Okamoto in view of Kusaura and Takei.

(Examiner's Answer at 3.) Rather than repeat the arguments of

the appellant or examiner in toto, we refer to the appeal and reply briefs and the examiner's answers for the respective details thereof.

OPINION

In reaching our decision in this appeal, we considered the subject matter on appeal and the rejection and evidence advanced by the examiner. We also considered the appellant's and examiner's arguments. After considering the record before us, it is our view that the evidence and level of skill in the art would not have suggested to one of ordinary skill in the art the invention of claims 8 and 9. Accordingly, we reverse.

We begin our consideration of the obviousness of the claims by recalling that in rejecting claims under 35 U.S.C. § 103, the patent examiner bears the initial burden of establishing a prima facie case of obviousness. A prima facie case is established when the teachings from the prior art itself would appear to have suggested the claimed subject

matter to a person of ordinary skill in the art. If the examiner fails to establish a prima facie case, an obviousness rejection is improper and will be overturned. In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). With this in mind, we analyze the examiner's rejection.

Regarding claims 8 and 9, the examiner observes Okamoto teaches a double-sided disk player including first and second parallel rack gears, a semi-circular rack gear, and an optical pickup assembly including an optical lens and drive means. He admits Okamoto is silent as to a rotating cleaning brush disposed in the center of an arc of the semi-circular rack via a shaft. The examiner notes Kusaura discloses a cleaning brush mounted on a bracket for cleaning the lens of an optical disk player. (Examiner's Answer at 3.) He concludes it would have been obvious to provide Okamoto's disk player with Kusaura's cleaning brush to provide effective cleaning of dust on the optical pickup. (Id. at 4.)

The examiner also notes Takei teaches a rotating cleaning brush with a shaft for cleaning a transducer. (Id. at 3.) He appears to conclude it would have been obvious to replace Kusaura's stationary brush with Takei's rotating brush to provide more cleaning agitation and prevent damage caused by a large force concentrated in a small area. (Id. at 4.) In response, the appellant argues the brush must be located to accomplish cleaning as the optical pickup moves from one side of the disk to the opposite side. (Reply Br. at 2.) He asserts the combination of Kusaura with Okamoto would locate the brush immediately adjacent the outer periphery of the disk so the optical head would be cleaned twice when it is conveyed from the lower side of the disk to the upper side. (Appeal Br. at 5-6.)

We find the references would have failed to suggest the means for cleaning of claim 8. The claim recites in pertinent part "means ... for cleaning the lens of said optical pickup assembly during its movement from said one side to said opposite side" (Appeal Br. at 9.) The appellant explains this limitation means the optical lens is cleaned

during the entire time in which the optical assembly is moving along the entire arc of the semi-circular rack gear 15c.

(Appeal Br. at 3, 6.) During oral hearing, appellant's representative stressed the optical lens is cleaned continuously during this entire time of movement along the arc.

Comparison of the claim language to the teachings of Okamoto, Takei, and Kusaura evidences the references would not have suggested the claimed means for cleaning. Okamoto is silent as to a cleaning means. Takei is irrelevant to the positioning of a cleaning means in an optical disk drive.

Kusaura discloses positioning a cleaning brush at the outermost circumferential portion of a disk cartridge. P. 192, Figs. 1-3. The examiner and appellant agree a person of ordinary skill in the art would have been motivated to combine Kusaura with Okamoto to locate a brush in the outermost circumferential position of the disk in Okamoto, which they refer to as "option 1." (Examiner's Answer at 5; Appeal Br. at 5-6.) A brush located in this position, however, would

clean the lens twice during the movement of the optical assembly from one side of the disk to the other. It would clean the lens at the beginning of the semi-circular rack gear and at its end. The brush would not clean the lens during the entire time in which the optical assembly is moving along the entire arc of the semi-circular rack gear. In other words, cleaning would not be continuous during the entire time of movement along the arc as claimed.

For the foregoing reasons, the examiner failed to show the references would have suggested means for cleaning as in independent claim 8 and its dependent claim 9. Accordingly, we find the examiner's rejection of these claims does not amount to a prima facie case of obviousness. Because the examiner has not established a prima facie case, the rejection of the claims over Okamoto in view of Kusaura and Takei is improper. Therefore, we reverse the rejection of the claims 8 and 9 under 35 U.S.C. § 103.

CONCLUSION

To summarize, the decision of the examiner to reject claims 8 and 9 under 35 U.S.C. § 103 is reversed.

REVERSED

ERROL A. KRASS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
MICHAEL R. FLEMING)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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