

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 31

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte HIROSHI YAMAMOTO and SUGURU TAKISHIMA

Appeal No. 1999-2708
Application No. 08/896,533

ON BRIEF¹

Before JERRY SMITH, RUGGIERO, and BARRY, *Administrative Patent Judges*.

BARRY, *Administrative Patent Judge*.

DECISION ON APPEAL

The examiner rejected the appellants' claims 1-4, 8-11, 13-15, 18-20, and 22-25. They appeal therefrom under 35 U.S.C. § 134(a). We reverse.

BACKGROUND

¹ The appellants waived an oral hearing scheduled for October 16, 2001. (Paper No. 30.)

The invention at issue in this appeal relates to disk drives for media cartridges. Such disk drives use optical or magnetic disks enclosed in a cartridge. More specifically, the cartridge is inserted in, and discharged from, the disk drive via an opening therein. The opening is covered by a swinging shutter leaf. Upon insertion or discharge of the cartridge, the shutter leaf swings inward or outward as it is pushed by the cartridge. A gap between the shutter leaf and the opening ensures that the shutter leaf swings smoothly. Unfortunately, dust or debris can enter through the gap.

In contrast, a resilient skirt extends from a free edge of the appellants' shutter leaf toward an inner surface of an insertion/discharge opening. When the shutter leaf is closed, the skirt fills the gap between the leaf and the opening, thereby limiting the entry of dust and debris. Because the skirt can easily deform when in contact with the peripheral edge of the opening, moreover, the shutter leaf can swing unimpeded.

Claim 1, which is representative for present purposes,
follows:

1. A shutter mechanism for a disk cartridge
insertion opening of a disk drive device, said
shutter mechanism comprising:

a shutter leaf swingably mounted in said
opening, said shutter leaf being swingable about a
swing axis both inwardly towards an inner position,
and outwardly towards an outer position, with
respect to said disk drive device, and having a
length in a direction perpendicular to said swing
axis which is shorter than a dimension of said
insertion opening in said direction to define a gap
between an end of said shutter leaf and an adjacent
peripheral surface of said insertion opening; and

at least one resilient skirt along at least a
portion of a periphery of said shutter leaf, said
resilient skirt extending toward and contacting said
adjacent peripheral surface of said insertion
opening so that said resilient skirt substantially
covers said gap between said shutter leaf and said
insertion opening when said shutter leaf is in a
closed position, said resilient skirt contacting
said peripheral surface when in the closed position
between said inner and outer positions.

(Appeal Br. at 29.)

The prior art applied by the examiner in rejecting the
claims follows:

Harlan et al. ("Harlan")
26, 1974

3,800,328

Mar.

Iizuka 1986	4,607,301	Aug. 19,
Aoki 20, 1993.	5,229,987	July

Claims 1-4, 8, 9 and 22 stand rejected under 35 U.S.C.

§ 103(a) as obvious over Harlan in view of Iizuka.

(Examiner's Answer at 5.) Claims 10, 11, 13-15, 18-20, and 23-25 stand rejected under § 103(a) as obvious over Aoki in view of Iizuka. (*Id.* at 3.) Rather than reiterate the arguments of the appellants or examiner *in toto*, we refer the reader to the briefs and answer for the respective details thereof.

OPINION

After considering the record, we are persuaded that the examiner erred in rejecting claims 1-4, 8-11, 13-15, 18-20, and 22-25. Accordingly, we reverse. We begin by summarizing the examiner's rejection and the appellants' argument.

Admitting that neither Harlan nor Aoki shows shutter mechanisms "as comprising a resilient skirt for sealing a

clearance between" shutters and an insertion opening, the skirt being "exclusive to the hinged shutter side," (Examiner's Answer at 4, 6), the examiner asserts, "Iizuka (US 4,607,301) teaches a shutter mechanism comprising a shutter leaf (D1) swingably mounted in an opening. At least one resilient skirt (5) is provided along the remaining sides of the shutter (D1) opposite to a hinged side." (*Id.*) He further asserts, "[i]t would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the resilient skirt hinged shutter, as taught by Iizuka," (*id.*), to the shutter leaves of Harlan and Aoki. The appellants argue, "any teaching of IIZUKA that is imported into and combined with AOKI would not result in a combination of features rendering the invention . . . unpatentable." (Appeal Br. at 12.)

In deciding obviousness, "[a]nalysis begins with a key legal question -- *what is the invention claimed?*" *Panduit Corp. v. Dennison Mfg. Co.*, 810 F.2d 1561, 1567, 1 USPQ2d 1593, 1597 (Fed. Cir. 1987)(emphasis in original). "Claim

interpretation . . . will normally control the remainder of the decisional process." *Id.* at 1567-68, 1 USPQ2d at 1597.

Here, claim 1 specifies in pertinent part the following limitations: "a gap between an end of said shutter leaf and an adjacent peripheral surface of said insertion opening; and at least one resilient skirt along at least a portion of a periphery of said shutter leaf, said resilient skirt extending toward and contacting said adjacent peripheral surface of said insertion opening so that said resilient skirt substantially covers said gap between said shutter leaf and said insertion opening when said shutter leaf is in a closed position . . .

."

Similarly, claim 10 specifies in pertinent part the following limitations: "a gap between an adjacent end of each of said pair of shutter leaves; and at least one resilient skirt along at least a portion of a peripheral end of at least one of said pair of shutter leaves, said at least one resilient skirt extending toward the remaining one of said pair of shutter leaves so that said at least one resilient skirt covers said gap between said pair of shutter leaves when in said closed position." Accordingly, claims 1 and 10 respectively require *inter alia* a skirt extending from a free

edge of a swinging shutter leaf toward an inner surface of an insertion opening to cover a gap therebetween when the shutter leaf is closed and a skirt extending from a free edge of a swinging shutter leaf toward a free edge of another swinging shutter leaf to cover a gap therebetween when the shutter leaves are closed.

Having determined what subject matter is being claimed, the next inquiry is whether the subject matter is obvious. "In rejecting claims under 35 U.S.C. Section 103, the examiner bears the initial burden of presenting a *prima facie* case of obviousness." *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993)(citing *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992)). "'A *prima facie* case of obviousness 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.'" *In re Bell*, 991 F.2d 781, 782, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993) (quoting *In re Rinehart*, 531 F.2d 1048, 1051, 189 USPQ 143, 147 (CCPA 1976)).

Here, Iizuka fails to cure the defect of Harlan and Aoki. More specifically, Iizuka's packing member 5, on which the examiner relies, neither extends from a free edge of a swinging shutter leaf toward an inner surface of an insertion opening nor extends from a free edge of a swinging shutter leaf toward a free edge of another swinging shutter leaf. To the contrary, the packing member extends from an inner surface of a door. Specifically, "outer door D_1 . . . is provided on the inner surface thereof with a packing member **5** made from sponge" Col. 2, ll. 7-10. Furthermore, the packing member extends toward a wall perpendicular to an insertion opening. Specifically, "[t]he packing member **5** forcibly contacts an outer wall **2a** surrounding the cassette insertion opening **2**" *Id.* at ll. 11-13.

Because the combination of Harlan and Iizuka and of Aoki and Iizuka would respectively lack a skirt extending from a free edge of a swinging shutter leaf toward an inner surface of an insertion opening to cover a gap therebetween when the shutter leaf is closed and a skirt extending from a free edge

of a swinging shutter leaf toward a free edge of another swinging shutter leaf to cover a gap therebetween when the shutter leaves are closed, we are not persuaded that the teachings from the applied prior art would have suggested the limitations of "a gap between an end of said shutter leaf and an adjacent peripheral surface of said insertion opening; and at least one resilient skirt along at least a portion of a periphery of said shutter leaf, said resilient skirt extending toward and contacting said adjacent peripheral surface of said insertion opening so that said resilient skirt substantially covers said gap between said shutter leaf and said insertion opening when said shutter leaf is in a closed position" or "a gap between an adjacent end of each of said pair of shutter leaves; and at least one resilient skirt along at least a portion of a peripheral end of at least one of said pair of shutter leaves, said at least one resilient skirt extending toward the remaining one of said pair of shutter leaves so that said at least one resilient skirt covers said gap between said pair of shutter leaves when in said closed position." Therefore, we reverse the rejection of claim 1 and of claims 2-4, 8, 9, 22, and 23, which depend therefrom. We also

reverse the rejection of claim 10 and of claims 11, 13-15, 18-20, 24, and 25, which depend therefrom.

CONCLUSION

In summary, the rejection of claims 1-4, 8-11, 13-15, 18-20, and 22-25 under § 103(a) is reversed.

REVERSED

JERRY SMITH)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOSEPH F. RUGGIERO)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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