

**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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte EDWARD J. WOO and DAVID R. BOSTON

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Appeal No. 95-5115  
Application No. 08/091,999<sup>1</sup>

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ON BRIEF

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Before GARRIS, WARREN and SPIEGEL, Administrative Patent Judges.

GARRIS, Administrative Patent Judge.

**DECISION ON APPEAL**

This is a decision on an appeal which involves claims 1, 4 through 6, 8, 9, 11 through 13 and 15<sup>2</sup>. The only other

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<sup>1</sup> Application for patent filed July 15, 1993.

<sup>2</sup> Claims 11 and 12 at least ultimately depend from now cancelled claim 10. This informality should be corrected in  
(continued...)

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claims remaining in the application, which are claims 2 and 24, have been withdrawn by the appellants from this appeal (see Paper No. 15 filed October 16, 1995).

The subject matter on appeal relates to a photoconductor element for use in electrophotographic imaging which comprises a support, a photoconductive layer, a barrier layer and a release layer topcoat, wherein the barrier layer either comprises or consists essentially of silica and an organic polymer in a weight ratio ranging from 9:1 to 1:1. This appealed subject matter is adequately illustrated by independent claim 1 which reads as follows:

1. A photoconductor element for use in electrophotographic imaging, comprising:

a support:

a photoconductive layer coated on said support;

a barrier layer coated on said photoconductive layer, said barrier layer comprising an organic polymer and silica, said polymer and said silica being present in said barrier layer at a silica to polymer weight ratio ranging from 9:1 to 1:1; and

a release layer topcoat coated on said barrier layer.

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<sup>2</sup>(...continued)  
any further prosecution that may occur.

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The references relied upon by the examiner as evidence of obviousness are:

Kubota et al. (Kubota) 1979	4,148,637	Apr. 10,
Otsuka et al. (Otsuka) 1988	4,752,549	Jun. 21,
Bilkadi 1992	5,104,929	Apr. 14,
Brown et al. (Brown) 1992	5,124,220	Jun. 23,
Oguchi et al. (Oguchi) 1987	4,647,521	Mar. 3,
Japanese Patent Abstract 17, 1988 (Japanese '260)	JP 63280260	Nov.
Japanese Patent Abstract 1989 (Japanese '464)	JP 1134464	May 26,
Japanese Patent Abstract 1990 (Japanese '870)	JP 2151870	Jun. 11,
Japanese Patent Abstract 1992 (Japanese '765)	JP 4037765	Feb. 7,

All of the claims on appeal stand rejected under 35  
U.S.C.

§ 103 as being unpatentable over: Brown in view of either  
Otsuka or Bilkadi; or alternatively any one of Oguchi,

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Japanese '464, Japanese '870, Japanese '765 or Japanese '260 in view of Brown. Additionally, claims 1, 4 through 6 and 8 are rejected under 35 U.S.C. § 103 as being unpatentable over Kubota in view of Brown<sup>3</sup>.

None of the above noted rejections can be sustained.

As correctly explained by the appellants, the Brown, Otsuka and Kubota references contain no teaching or suggestion of the here claimed silica to polymer weight ratios. While Otsuka and Kubota teach adding silica to a polymer-based protective layer in order to improve the strength characteristics thereof, the appellants teach adding silica to their polymer-based barrier layer in order to improve entirely different characteristics. On the record before us, the examiner has advanced no evidence or rationale to support a conclusion that the amount of silica needed to obtain the characteristics of the prior art would correspond to the amount of silica needed to obtain the entirely different characteristics of the here claimed invention. It follows

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<sup>3</sup> The multiplicity of alternative rejections formulated by the examiner and his SPE are contrary to the guidelines set forth in the Manual of Patent Examining Procedure (M.P.E.P.) § 706.02 (July 1998).

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that the examiner has failed to carry his initial burden of establishing a prima facie case of obviousness and accordingly that we cannot sustain his § 103 rejection based on Brown in view of Otsuka or his § 103 rejection based on Kubota in view of Brown.

The § 103 rejection based on Brown in view of Bilkadi also cannot be sustained because the teachings of these references are antithetical to their combination as proposed by the examiner. Specifically, Brown's teaching of a release layer topcoat coated on a barrier layer militates against its proposed combination with Bilkadi's teaching of adding silica to a coating in order to improve its abrasion and weathering resistance. That is, these teachings would not have suggested adding silica to Brown's barrier layer so as to provide it with Bilkadi's abrasion and weathering resistance since this barrier layer is coated with a release layer and thus not subject to abrasion or weathering problems.

For analogous reasons, it would not have been obvious to combine the teachings of Oguchi, Japanese '464, Japanese '870, Japanese '765 or Japanese '260 with the teachings of Brown in the fashion stated by the examiner. In this regard, each of

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the first mentioned references teaches in essence adding silica to a surface layer in order to provide it with characteristics such as abrasion resistance. The very concept of an abrasion resistant surface layer plainly is antithetical to the examiner's proposal of covering this layer with Brown's release layer. Accordingly, we also cannot sustain the § 103 rejections based upon Oguchi in view of Brown or Japanese '464 in view of Brown or Japanese '870 in view of Brown or Japanese '765 in view of Brown or Japanese '260 in view of Brown.

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The decision of the examiner is reversed.

**REVERSED**

BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
CHARLES F. WARREN	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
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CAROL A. SPIEGEL	)	
Administrative Patent Judge	)	

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