

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte COLIN CLIPSTONE, STEVE S. HAHN,  
YIQIAN ERIC LIU, NEVILLE SONNENBERG  
and ANDREW ZHUK

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Appeal No. 2006-0263  
Application No. 10/379,264

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ON BRIEF

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Before KIMLIN, OWENS and JEFFREY T. SMITH, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 2, 4-6, 9-11, 13 and 22-24. Claim 2 is illustrative:

2. A razor blade, comprising

a substrate with a cutting edge defined by a sharpened tip and adjacent facets;

a coating consisting of a carbon-containing material selected from the group consisting of diamond-like carbon, diamond, and amorphous diamond, doped with chromium or an alloy of chromium, on the cutting edge, the coating including from 0.1 to 10 atomic percent chromium; and

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a coating of polytetrafluoroethylene on the coating of a carbon-containing material;

wherein there is no interlayer between the coating consisting of the carbon-containing material and the cutting edge.

The examiner relies upon the following references as evidence of obviousness:

Goel et al. (Goel)	5,795,648	Aug. 18, 1998
Wang	6,331,332	Dec. 18, 2001
Clipstone et al. (Clipstone)	6,684,513	Feb. 3, 2004 (filed Feb. 29, 2000)

Appellants' claimed invention is directed to a razor blade comprising a coating consisting of a carbon-containing material, e.g., a diamond-like carbon, and chromium as a dopant. The appealed claims set forth that there is no interlayer between the coating and the cutting edge of the razor blade.

Appealed claims 2, 4, 5, 11, 13, 22 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Goel in view of Wang. Claims 6, 9, 10 and 24 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the stated combination of references further in view of Clipstone.

Appellants have not set forth an argument that is reasonably specific to any particular claim on appeal. Accordingly, all the appealed claims stand or fall together with claim 2. Also, we

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note that appellants have not set forth a separate substantive argument for the separate § 103 rejection of claims 6, 9, 10 and 24.

We have thoroughly reviewed each of appellants' arguments for patentability. However, we are in complete agreement with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejections.

There is no dispute that Goel, like appellants, discloses a razor blade comprising a cutting edge and a coating comprising a carbon-containing material, i.e., a diamond-like carbon and a chromium dopant, with no interlayer between the carbon-containing material and the cutting edge of the blade. Goel also teaches that the coating comprises a silicon network that interpenetrates the diamond-like carbon material network. However, inasmuch as the BACKGROUND section of Goel evidences that it was known in the art to use coatings of diamond-like materials for razor blades, we are satisfied that it would have been obvious for one of ordinary skill in the art to eliminate the silicon network of Goel along with its described advantages. It is well settled that the omission of a feature disclosed by the prior art along

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with its attendant function is a matter of obviousness for one of ordinary skill in the art. In re Thompson, 545 F.2d 1290, 1294, 192 USPQ 275, 277 (CCPA 1976); In re Kuhle, 526 F.2d 553, 555, 188 USPQ 7, 9 (CCPA 1975); In re Edge, 359 F.2d 896, 899, 149 USPQ 556, 557 (CCPA 1966). As for the presence of the chromium dopant in the coating layer, Goel, as well as Wang, provide evidence that it was known in the art to employ such chromium dopants in the coatings of razor blades which comprise diamond-like materials. Although Wang is not directed to razor blades, in particular, appellants acknowledge that Wang discloses that a diamond-like carbon material containing chromium possesses good adhesion to a substrate (column 4, lines 4 et seq.). The fact that Wang also teaches that the provision of interlayers may especially enhance the adhesion and reduced residual stress of a chromium-containing diamond-like carbon material does not negate the fact that the reference explicitly teaches that the presence of chromium improves the adhesion of a diamond-like carbon material. Appellants have not argued, let alone provided objective evidence, that the adhesion of the claimed coating material cannot be increased by providing an interlayer.

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected

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results, which would serve to rebut the inference of obviousness established by the applied prior art.

In conclusion, based on the foregoing, the examiner's decision rejecting the appealed claims is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED

EDWARD C. KIMLIN	)	
Administrative Patent Judge	)	
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TERRY J. OWENS	)	BOARD OF PATENT
Administrative Patent Judge	)	APPEALS AND
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JEFFREY T. SMITH	)	
Administrative Patent Judge	)	

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Fish & Richardson PC  
P.O. Box 1022  
Minneapolis, MN 55440-1022