

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte DANIEL P. IVKOVICH, JR.,
ANDREW J. SKOOG, JANE A. MURPHY, THOMAS W. RENTZ,
WILLIAM R. STOWELL and BRYAN T. BOJANOWSKI

Appeal 2006-3437
Application 10/702,801
Technology Center 1700

Decided: November 16, 2006

Before KIMLIN, WALTZ, and GAUDETTE, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-20. Claim 1 is illustrative:

1. A method for applying an optical coating to an article surface of a metallic article, comprising the steps of:

furnishing the metallic article having the article surface;

providing a deposition substrate other than the article surface, wherein the deposition substrate is made of a removable material; thereafter

depositing the optical coating onto the deposition substrate, wherein the optical coating has a first face contacting the deposition substrate, and a second face remote from the first face; thereafter

transferring the optical coating to the article surface using a transfer support; thereafter

affixing the optical coating to the article surface using a ceramic-containing bonding element by pressing the optical coating and the article surface together with the bonding element therebetween at an elevated temperature; and thereafter

removing the transfer support.

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

Alexander	US 3,654,016	Apr. 4, 1972
Oliva	US 4,153,494	May 8, 1979
Hastings	US 4,381,716	May 3, 1983
Hankland	US 4,407,685	Oct. 4, 1983
Duchane	US 4,481,999	Nov. 13, 1984
Conolly	US 4,623,087	Nov. 18, 1986
Ross	US 5,830,529	Nov. 3, 1998

Appellants' claimed invention is directed to a method for applying an optical coating to the surface of a metallic article. The method entails first depositing the optical coating on a deposition substrate that is made of a removable material, transferring the coating to the article surface using a transfer support, and affixing the coating to the surface of the article using a

ceramic-containing bonding element between the coating and the article surface. The transfer support may be the removable deposition substrate, such as polyvinyl alcohol, or the transfer support may be an intermediate support which removes the optical coating from the deposition substrate and transfers it to the article surface. The metallic article that receives the optical coating may be a component of a gas turbine engine.

Appealed claims 1, 2, 4-7, and 9-20 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims of co-pending application 10/681,676 in view of Hastings. The appealed claims also stand rejected under 35 U.S.C. § 103(a) as follows:

- (a) claims 1, 4-12, and 20 over Ross in view of Hastings,
- (b) claim 2 over Ross in view of Hastings and Connolly,
- (c) claim 3 over Ross in view of Hastings and Ducane,
- (d) claims 13, 16-18, and 20 over Ross in view of Hastings and Hankland,
- (e) claims 14 and 15 over Ross in view of Hastings and Oliva, and
- (f) claim 19 over Ross in view of Hastings and Alexander.

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, as well as the doctrine of double patenting, in view of the applied prior art and co-pending application. Accordingly, we will sustain the Examiner's rejections for the reasons set

forth in the Answer, which we incorporate herein, and we add the following primarily for emphasis.

We consider first the Examiner's obviousness-type double patenting rejection. The Examiner acknowledges Appellants' argument that the claims of the co-pending application recite features not present in the appealed claims, such as applying a first release system to the deposition substrate before depositing the optical coating, applying a release system and a transfer substrate to the second phrase of the optical coating, etc. However, the Examiner correctly points out that the "comprising" language of the appealed claims does not exclude the steps but, rather, encompasses them. Also, although the claims of the co-pending application are silent with respect to the bonding element being a ceramic-containing material, we agree with the Examiner that Hastings evidences the obviousness of employing the known bonding material in the method of the co-pending application. Indeed, Appellants' Specification cites prior art for a ceramic-containing bonding element (*see* page 10, last paragraph).

Appellants misstate the issue as "whether it would be obvious to omit the steps involving the first release system, second release system, etc. as recited in SN 10/681,767 to produce the presently claimed approach" (page 10 of principal Br., third paragraph), and erroneously state that the meaning of "comprising" is "not relevant to the present inquiry" (page 2 of Reply Br., seventh paragraph). As explained by the Examiner, it is well settled that the term "comprising" opens up the claim to all features that are not specifically excluded therein and, consequently, it is not necessary that the appealed claims specifically omit the pertinent method steps of the co-pending

application to be susceptible to a rejection under obviousness-type double patenting.

We now turn to the Section 103 rejections of the appealed claims wherein Ross is the "primary" reference. We fully concur with the Examiner that Ross fairly discloses the claimed method of applying an optical coating, such as a metal, reflective, holographic or retroreflective coating, to a metallic article or base by transferring the optical coating to the article surface either directly from a deposition substrate or through an intermediate support. We also agree with the Examiner that Ross fairly teaches removing the deposition substrate or transfer support by a solvent or the like to complete the transfer of the optical coating. While Ross does not expressly disclose the use of a presently claimed ceramic-containing bonding element, Ross specifically discloses that "[v]arious adhesives, well known in the art, can be applied to one surface of the coatings for subsequent attachment to a final or intermediate surface or as a transportation means from the base to another surface and then subsequent removal of the adhesive due to the differential surface contact between the transfer media and the final surface such that the adhesive will separate on the coatings level while the coatings are retained on the final surface" (col. 38, ll. 1-8). Accordingly, since Hastings teaches the use of a ceramic-containing adhesive for forming metal laminates, and Appellants' admitted prior art establishes that the claimed ceramic-containing bonding element was known in the art, we wholly support the Examiner's legal conclusion that it would have been obvious for one of ordinary skill in the art to select the Hastings adhesive as one of the well known various adhesives of Ross.

We are not persuaded by Appellants' argument that "the adhesive properties discussed by Ross do not suggest the need for an adhesive of the type taught by Hastings" (page 15 of principal Br., penultimate paragraph). It is not necessary for a conclusion of obviousness that Ross needs a ceramic adhesive, but it is sufficient that one of ordinary skill in the art would have found it obvious to select the known ceramic adhesive as one of the various adhesives noted by Ross. We note that Appellants' Specification attaches no particular criticality to the use of a ceramic adhesive, and Appellants' preference of such would allay any suggestion of criticality. In the absence of any unexpected results, we are satisfied that one of ordinary skill in the art would have found it obvious to resort to routine experimentation to determine the particular adhesives that provide the optimum properties for a specific application.

We are also not persuaded by Appellants' argument that "[t]he recited bonding element is instead a free standing element that is positioned between the optical coating and the article surface, as is the standard industry usage of the term 'bonding element,'" referencing two US patents (page 16 of principal Br., last paragraph). We agree with the Examiner that the recited ceramic-containing bonding element, when given its broadest reasonable interpretation, includes layers of adhesives that harden after application and is not necessarily a free standing element. Appellants have not established an art-recognized definition for "bonding element." Moreover, as noted above, Appellants' Specification acknowledges that such bonding elements were known in the art.

As for the various features of the dependent claims on appeal, we are satisfied that the additional references cited by the Examiner establish that

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such features were known in the art of bonding, in general, and transfer bonding, in particular. Appellants have apprised us of no unexpected results associated with any of the bonding techniques recited in the dependent claims. For instance, although Appellants argue that the “compliant transfer support” of claim 8 “is not the same as ‘flexible,’ ‘metal’, ‘plastics’, or ‘combinations of materials,’” Appellants have provided no definition of “compliant” to distinguish over the dictionary definition “yielding,” so as to establish that in some way flexible, metal and plastic supports are not compliant. The other dependent claims separately argued by Appellants have been adequately addressed by the Examiner.

In conclusion, based on the foregoing and the reasons well stated by the Examiner, the Examiner's decision rejecting the appealed claims in affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(iv)(effective Sept. 13, 2004).

AFFIRMED

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