

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ZAYN BILKADI

Appeal No. 94-3812
Application 07/857,701¹

ON BRIEF

Before RONALD H. SMITH, METZ and JOHN D. SMITH, **Administrative Patent Judges**.

METZ, **Administrative Patent Judge**.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the

Application for patent filed March 25, 1992. Said application is a continuation of Serial No. 07/401,832, filed on September 1, 1989, now abandoned, which is a continuation-in-part of Serial No. 07/180,057, filed on April 11, 1988, now abandoned.

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examiner's refusal to allow claims 1 through 5, 7 through 11, 13 through 17, 30 and 34. Claims 6, 18 through 29 and 31 through 33, the only other claims remaining in this application, have been withdrawn

from consideration as claims directed to a previously non-elected invention and, accordingly, form no issue in this appeal.

THE INVENTION

The claimed invention is directed to an article which comprises an unprimed metal surface which is silver, brass, nickel or aluminum. The metal article has adhering thereto an abrasion resistant, transparent to visible light, moisture resistant coating which comprises colloidal inorganic particles embedded in a cured polymer prepared from a monomer of a polyethylenically unsaturated amide of acrylic acid.

Claim 1 is reproduced below for a more facile understanding of appellant's claimed invention.

1. An article comprising an unprimed metal surface selected from the group consisting of silver, brass, nickel and aluminum having adhered thereto an abrasion resistant, transparent to visible light, moisture resistant coating comprising 33.3 to 66.7% by weight of

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colloidal inorganic particles embedded in a radiation cured crosslinked polymer matrix of a polymer formed from the cure of monomers comprising polyethylenically unsaturated amide of acrylic acid.

BACKGROUND

Appellant noted this appeal on October 18, 1993 (Paper Number 20). His brief was filed on December 27, 1993 (Paper Number 22). The examiner filed his Answer on February 17, 1994 (Paper Number 23). In his Answer, the examiner included a statement of the outstanding grounds of rejection, specifically: (1) Claims 30 and 34 stand rejected under 35 U.S.C. 112, first and second paragraphs, based on several different theories; (2) claims 1 through 5, 7 through 11, 13 through 17, 30 and 34 stand rejected under the judicially created doctrine of obviousness double patenting; and, (3) claims 1, 13, 30 and 34 stand rejected as being unpatentable under 35 U.S.C. § 103 from Kojima et al. considered with Dessauer and Aoyama et al. Additionally, the examiner entered a new ground of rejection of claims 1 through 5, 7 through 11, 13 through 17, 30 and 34 as being unpatentable under 35 U.S.C. § 103. Appellant was given two months from the date of the Answer in which to file a reply to the new ground of rejection. The examiner also noted in his Answer that the

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claims in appellant's appendix to his brief were not the claims on appeal.

On March 14, 1994, appellant filed a reply brief responding to the new ground of rejection and a separate amendment on even date (Paper Numbers 24 and 25, respectively). On April 21, 1994, the examiner filed a supplemental Answer to appellant's reply brief wherein the examiner modified his new ground of rejection (Paper Number 26). The application was received at the Board of Patent Appeals and Interferences (the Board) on August 5, 1994. On October 21, 1996, the application was remanded to the examiner by one of the Board's Program and Resource Administrators for: (1) the signature of the Supervisory Primary Examiner approving the new ground of rejection; (2) stating the status of the amendment of March 14, 1994²; and, (3) requiring a correct appendix to the brief containing the claims on appeal (Paper Number 27).

The examiner responded to the remand in a paper captioned "Examiner's Answer" and filed on October 30, 1996, and

² The Program and Resource Administrator's reference to the amendment of February 1, 1996 in the Remand is not understood as there is no amendment of February 1, 1996, in the record.

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required, *inter alia*, "a new complete brief", including an appendix with the correct copy of the claims on appeal (Paper Number 28). On page 2 of Paper Number 28, the examiner maintained the rejections of the claims 1, 4, 5, 8, 9, 11, 14, 16, 30 and 34 under 35 U.S.C. § 103 for reasons expressed in Paper Numbers 23 and 26.³ Appellant was given one month from the date of Paper Number 28 to file a new brief "that fully complies with 37 C.F.R. § 1.192(c)." Appellant timely filed a "new complete brief" on December 2, 1996 (November 30, 1996, was a Saturday, Paper Number 29). The appellant's brief was acknowledged in a paper captioned "**THIRD SUPPLEMENTAL EXAMINER'S ANSWER**" and filed on January 24, 1997 (Paper Number 30).

THE REFERENCES

The references of record which are being relied on by the examiner as evidence of obviousness are:

Dessauer	4,311,783	Jan. 19,
1982		
Aoyama et al. (Aoyama)	4,384,011	May 17,
1983		

³ The examiner's reference to the Supplemental Examiner's Answer mailed April 2, 1994, is an obvious error. Said Supplemental Examiner's Answer was mailed on April 21, 1994.

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Kojima et al. (Kojima) 1985	4,542,088	Sep. 17,
Reilly, Jr. 1986	4,576,975	Mar. 18,
Bilkadi	4,885,332	Dec. 5, 1989
Lucey 1993	5,180,757	Jan. 19,

THE REJECTIONS

Claims 30 and 34 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to satisfy the written description requirement of the statute with respect to the formula for the unsaturated amide. Claims 30 and 34 stand rejected under 35 U.S.C. § 112, first paragraph, as lacking an adequate written description in the specification for the phrase "said monomers are free of acryloxy silanes and epoxy silanes", and because the formulae in claims 30 and 34 are not "described" in appellants' disclosure. Claims 30 and 34 stand rejected under 35 U.S.C.

§ 112, second paragraph, because the claims set forth an improper divalent **-N-** radical in the formulae in claims 30 and 34 and, because when "m" is 1.05, the claimed compound is not a polymer as required by the claim. Claims 1 through 5, 7 through 11, 13 through 17, 30 and 34 stand rejected under the judicially created doctrine of obviousness double patenting

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from the claims of Bilkadi considered with Reilly, Jr. Claims 1, 4, 5, 8, 9, 11, 14, 16, 30 and 34 stand rejected under 35 U.S.C. § 103 as being unpatentable from the disclosure of Kojima considered with Dessauer and Aoyama. Claims 1, 4, 5, 8, 9, 11, 14, 16, 30 and 34 stand rejected under 35 U.S.C. § 103 as being unpatentable from the disclosure in Lucey considered with Dessauer.

Except for the arguments at pages 19 and 20 of appellant's brief (Paper Number 29) concerning the rejection of claims 4, 5, 11, 14 and 16 under 35 U.S.C. § 103⁴, appellants have failed to argue with any reasonable degree of specificity the patentability of any other claim. Accordingly, except for the above-noted claims, the patentability of all the claims stands or falls with independent claim 1 and we shall decide the patentability of all the claims based on the patentability of claim 1. In re Nielson, 816 F.2d 1567, 1572, 2 USPQ2d 1525, 1528 (Fed. Cir. 1987); In re Kroekel, 803 F.2d 705, 709, 231 USPQ 640, 642 (Fed. Cir. 1986). See also 37 CFR 1.192(c)(7), first sentence.

⁴ Appellant's separate arguments concerning Claims 6, 7, 10, 13, 15, 18, 23 and 24 are moot since these claims are not rejected under 35 U.S.C. § 103.

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THE OBVIOUSNESS DOUBLE PATENTING REJECTION

We shall reverse this rejection. While we agree with the examiner's implicit conclusion that only a so-called "one-way" test was necessary here because Bilkadi's assignee, the Minnesota Mining and Manufacturing Company could have filed the appealed claims and the Bilkadi claims in one application and, thus, appellant's assignee effectively controlled the rate of prosecution⁵, for reasons set forth below we find that the examiner has not established a *prima facie* case of obviousness.

On page 10 of Paper Number 23, the examiner concedes that Bilkadi claims neither a metal surface nor a polyacrylamide radiation cured crosslinked polymer. The examiner relies on the disclosure in Bilkadi in columns 7 and 8 that his coatings may be applied to metal and the disclosure in Reilly, Jr. at column 11, Example 5 where aluminum is allegedly coated with a polyacryloyl monomer and silica gel as evidence that the appealed claims would have been obvious from Bilkadi's claims. Additionally, the examiner considers Reilly, Jr. to teach the equivalence of polyacryloyl monomers and polyacrylamides for

⁵ In re Berg, 140 F.3d 1428, 1431, 46 USPQ2d 1226, 1229 (Fed. Cir. 1998).

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coating compositions for metals containing silica gel. The examiner concludes that:

It would have been obvious to employ the polyacrylamide of Reilly, Jr. as the polyacryloyl monomer of Bilkadi considering the equivalency between the polyacryloyl esters of Bilkadi and polyacrylamide established in Reilly, Jr. for equivalent colloidal silica-containing metal coating formulations.

We disagree.

In the first instance, Reilly, Jr. does not teach the equivalence of polyacryloyl esters of Bilkadi and polyacrylamides. Reilly, Jr. describes Micheler ketone analogs (MKA's) as photoinitiators for addition-polymerizable compounds. Useful water-insoluble polymerizable compounds include compounds which could be described as polyacryloyl esters. The acrylamides disclosed by Reilly, Jr. as useful are described as water-soluble polymerizable compounds. Thus, except for the fact that each of the aforementioned compounds may be polymerized by the MKA's, it is not understood where the alleged "equivalence" for Bilkadi's coating composition is found. Further, the silica gel in the example in column 12 of Reilly, Jr. is only used at a level of about 5 weight percent. Accordingly, we find that the appealed claims would not have been obvious from the claims of Bilkadi considered with

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Reilly, Jr.

THE REJECTIONS UNDER 35 U.S.C. § 112

We agree with the examiner that the formulae recited in claims 30 and 34 are not described, in the sense of 35 U.S.C. § 112, first paragraph, in appellant's original disclosure. As correctly noted by the examiner, the formula at page 11 of the specification depicts for the substituent "X" either "-O-" or "NHR²". The amides claimed in claims 30 and 34 do not include a hydrogen attached to the nitrogen atom. Thus, we agree with the examiner that appellant's original disclosure neither describes *in haec verba* nor reasonably conveys to a person of ordinary skill in the art that appellant was possessed of the compounds now claimed by them in claims 30 and 34.

In reaching the above conclusion we have not overlooked appellant's argument that the "-NHR²" is a divalent linking or bridging group. Nevertheless, if the recited group were a divalent linking group then "R²" would have to be a divalent linking group. Mere inspection of the values recited for "R²", that is, hydrogen or an alkyl group of from 1 to 4 carbon atoms, establishes the error in appellant's position.

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Moreover, the submission of the Hoechst Celanese product sheet does not support appellant's position. Suffice it to say that the compounds on the product sheet represent neither compounds as claimed in claims 30 and 34 nor compounds as described at page 11 of the specification.

We agree with appellant with respect to the recitation in claim 34 regarding the absence of acryloxy silanes and epoxy silanes. We find the disclosure at page 5, lines 24 through 30 reasonably conveys to persons of ordinary skill in the art that at the time appellant filed his application, he recognized that acryloxy and epoxy silanes were undesirable because they were not resistant to steam and extended exposure to moisture. Accordingly, the limitation in claim 34 excluding them is "described" in the sense of 35 U.S.C. § 112, first paragraph.

We find no merit in the examiner's position with respect to either the so-called "dangling" valence of the substituent "-NR²-" in claims 30 and 34 or with respect to the value of "m" in claims 30 and 34.⁶ We consider it to be apparent that

⁶ We note in passing that in claim 34, "m" is defined as ranging both from 1.05 to 5.95 and from 1 to 6. Indeed, after the recitation in claim 34 concerning the absence of silanes, the values for all the claimed substituents are

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the so-called "dangling valence" for nitrogen is attached to the " $R^1-(Y)_n$ " moiety. Concerning the value of "m" in claims 30 and 34, we find the examiner has misinterpreted appellant's disclosure at page 12, lines 2 through 6. It is clear that "m" is only 1.05 to 5.95 when a mixture of acrylic and methacrylic compounds are used. Only when either an acrylic or methacrylic compound is used does "m" have a value of two to six.⁷ Accordingly, the rejection under 35 U.S.C. § 112, paragraph two, is reversed.

THE REJECTIONS UNDER 35 U.S.C. § 103

We shall affirm the reaction over the combination of Kojima considered with Dessauer and Aoyama. As correctly noted by the examiner, Kojima discloses that metals, such as aluminum plates (column 10, lines 8 through 14), may be coated with a curable composition comprising a bisacrylamide (column 6, lines 19 through 24) and colloidal silica or alumina (column 5, lines 49 through 59). Similarly, Dessauer

repeated. Thus, we cannot comprehend the scope and content of what appellant is attempting to claim in claim 34.

⁷ We also note that the compounds of claims 30 and 34, designated as amides of acrylic acid, are only acrylamides when R^2 is hydrogen.

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describes coating a metal substrate (column 8, lines 49 through 57) with a curable monomer such as bisacrylamide (column 6, lines 9 through 52) and silica gel (column 5, lines 19 through 22). Aoyama coats a metal such as copper, iron, chromium, nickel, stainless steel or aluminum (column 4, lines 63 through 67) with a blend of bisacrylamide column 3, lines 33 through 65) and an inorganic filler such as silica (column 4, lines 38 through 47) in amounts which include the amounts claimed by appellant.

We agree with the examiner that the subject matter of claim 1 would have been *prima facie* obvious to a person of ordinary skill in the art at the time appellant's invention was made. Appellant has argued that using the claimed level (33.3 to 66.7 weight percent) of colloidal silica is neither taught nor suggested by the prior art. However, the examiner has performed a calculation using the disclosure of Aoyama which establishes that by following Aoyama's express disclosure, the claimed amounts are obtained. While appellant has had abundant opportunities to address the examiner's calculations he has declined to do so. Accordingly, we accept the examiner's calculations as accurate and agree with his conclusion based on his calculation.

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Additionally, Dessauer describes "minor amounts", as appellant acknowledges, and we find the terminology "minor amount" to mean less than fifty percent. Thus, Dessauer suggests the claimed loading level of colloidal silica. To the extent it is appellant's position that Kojima is silent on the issue of colloidal silica loading, we remind appellant that where, as here, the rejection is founded on a combination of references it is improper to consider the references individually for what they disclose. Rather, the references must be considered together for what their combined disclosures would have fairly suggested to a person of ordinary skill in the art.

Although appellant has recognized in his brief that the examiner has rejected the claims under 35 U.S.C. § 103 as being unpatentable from the disclosure of Lucey considered with Dessauer, we have searched appellant's brief for a discussion of the appellant's arguments against the rejection but have found none. Rather, there is a discussion at pages 14 through 17 addressing a rejection of the claims over a combination of references (Reilly, Jr., taken with Lucey and Costanza) not before us. It is not until the second full paragraph on page 17 of the brief that we find any discussion

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of Lucey and Dessauer. Therein, appellant argues that the proposed combination of Lucey with Dessauer would not yield the article of claim 1 because there is no basis for concluding that substituting for the filler in Lucey the filler in Dessauer would yield a transparent coating.

Nevertheless, we find nothing in the art relied upon which would indicate that such a coating is not transparent to visible light. Appellant's mere argument to the contrary is not adequate to overcome the fact that Lucey discloses that filled compositions have good resistance to humidity which is one of appellant's alleged properties for his coating. We are satisfied that this property alone would have motivated a person skilled in the art to have added a filler to Lucey's curable vinyl monomer compositions. Moreover, Lucey recognizes that the amount of filler used depends on the ultimate final use for the composition (column 18, lines 33 through 56). Finally, the disclosure of fumed silica in column 19, line 40, which is a form of colloidal silica, would have motivated an ordinarily skilled person in the art to use the colloidal silica of Dessauer in Lucey's composition. Accordingly, we shall affirm the rejection of the claims as unpatentable from the disclosure of Lucey considered with

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Dessauer.

Notwithstanding our affirmance of the prior art rejections, we have considered appellant's separate arguments for patentability at pages 19 and 20 of his brief. We agree with appellant that neither the plumbing fixture of claim 4 nor the metallized surface of an adhesive tape of claim 5 is either taught or fairly suggested by the prior art on which the examiner has relied.⁸ Accordingly, the rejections of claims 4 and 5 under 35 U.S.C. § 103 are reversed. We do not find persuasive, however, appellant's argument concerning the loading level of colloidal silica in claim 11, 14 and 16. We find the prior art teaches broad levels of addition which encompass the amount claimed in claims 11 and 16. Claim 14, however, ultimately depends from claim 3 which depends from claim 1 and does not recite the higher level of colloidal silica argued as a patentable distinction.

Having concluded that the examiner has made out a prima facie case of obviousness with respect to the appealed subject matter, it is necessary for us to consider appellants'

⁸ It is not clear from this record that a prior art search in the plumbing fixtures and metallized adhesive tape art has been made by the examiner.

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rebuttal evidence, if any, and to reconsider the prima facie case anew in light of all the evidence. In re Piasecki, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984). However, appellants have neither presented any rebuttal evidence nor advanced any arguments with respect to any probative showing of surprising or unexpected results represented by objective evidence in this record. Accordingly, the *prima facie* case of obviousness stands unrebutted.

SUMMARY

The rejection of claims 30 and 34 under 35 U.S.C. § 112, first paragraph, is **AFFIRMED**. The rejection of claims 30 and 34 under 35 U.S.C. § 112, second paragraph, is **REVERSED**. The rejection of claims 1 through 5, 7 through 11, 13 through 17, 30 and 34 under the judicially created doctrine of obviousness double patenting is **REVERSED**. The rejection of claims 1, 8, 9, 11, 14, 16, 30 and 34 under 35 U.S.C. § 103 is **AFFIRMED**. The rejection of claims 4 and 5 under 35 U.S.C. § 103 is **REVERSED**.

The decision of the examiner is **AFFIRMED-IN-PART**.

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

AFFIRMED-IN-PART

RONALD H. SMITH)	
Administrative Patent Judge)	
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ANDREW H. METZ)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
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