

The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.

Paper No. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHIGEO TSUJI
and
HIDEAKI OKAMOTO

Appeal No. 2001-0241
Application No. 08/997,373

HEARD: May 7, 2002

Before KIMLIN, DELMENDO and NAGUMO, Administrative Patent Judges.
KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-15, all the claims in the present application. Claim 1 is illustrative:

1. A photosensitive lithographic printing plate having a photosensitive resin layer formed on an aluminum substrate subjected to electrolytic surface roughening in nitric acid or in an electrolyte composed mainly of nitric acid and further to anodic oxidation treatment, wherein the photosensitive resin layer is made of a photopolymerizable composition comprising (A) an addition-polymerizable ethylenically unsaturated bond-containing

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monomer, (B) a photopolymerization initiator, and (C) a polymer binder, wherein the addition-polymerizable ethylenically unsaturated bond-containing monomer (A) contains a phosphate compound having at least one (meth)acryloyl group.

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

Dickie et al. (Dickie)	4,039,722	Aug. 2, 1977
Dueber et al. (Dueber)	4,555,473	Nov. 26, 1985
Nishikawa et al. (Nishikawa)	5,104,743	Apr. 14, 1992
Lauke et al. (Lauke)	5,262,278	Nov. 16, 1993
Meier et al. (Meier)	5,286,611	Feb. 15, 1994
Nippon Light Metal Co., Ltd.	Sho 53-67507	June 16, 1978
(Japanese Kokai Patent Application, hereinafter referred to as "Nippon")		

Appellants' claimed invention is directed to a photo-sensitive lithographic printing plate having a resin layer comprising an ethylenically unsaturated monomer containing a phosphate compound and at least one (meth)acryloyl group. The support of the printing plate is an aluminum substrate that has been subjected to electrolytic surface roughening in nitric acid and to further anodic oxidation treatment. According to appellants, they have unexpectedly found that the combination of the nitric acid-treated aluminum support and a photosensitive resin layer comprising the phosphate-containing ethylenically unsaturated monomer results in "a photosensitive lithographic printing plate excellent in all of printing resistance,

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sensitivity image reproducibility and removability of a non-image portion" (sentence bridging pages 5 and 6 of specification).

The appealed claims stand rejected under 35 U.S.C. § 103 as follows:

(1) claims 1-6, 11, 14 and 15 over Nishikawa in view of Dickie;

(2) claims 7 and 8 over Nishikawa in view of Dickie and Kawamura;

(3) claim 12 over Nishikawa in view of Dickie and Meier;

(4) claim 13 over Nishikawa in view of Dickie and Dueber;
and

(5) claims 1, 3-6, 9-11 and 13-15 over Lauke in view of Nippon.

Appellants submit at page 3 of the principal brief that "[t]he claims all stand or fall separately." However, pages 13-19 of appellants' principal brief fails to set forth substantive reasoning why any separately listed claim would have been nonobvious to one of ordinary skill in the art in view of the applied prior art and the examiner's analysis thereof. Rather, appellants simply present the legal conclusion that the cited references neither disclose nor suggest the features of the

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individual claims. Accordingly, all the appealed claims are considered to stand or fall together with claim 1.

In reaching our opinion we have thoroughly reviewed the arguments advanced by the examiner and appellants, as well as the specification data relied upon by appellants.

We will not sustain the examiner's rejections based upon Nishikawa and Dickie. As appreciated by the examiner, Nishikawa does not disclose a photosensitive lithographic printing plate wherein the photosensitive resin layer comprises an ethylenically unsaturated phosphate-containing monomer, as presently claimed. While Dickie discloses a photosensitive composition containing such a phosphate-containing ethylenically unsaturated monomer, appellants properly point out that Dickie is not directed to making a photosensitive lithographic printing plate. Rather, Dickie teaches that the inventive articles "are suitable for use as a substitute for plated metal surfaces used for trim or brightwork on the exterior of automobiles" (column 1, lines 22-24). Accordingly, we must agree with appellants that one of ordinary skill in the art would not have possessed the requisite motivation to substitute the phosphate-containing monomer of Dickie for those disclosed by Nishikawa in the preparation of a photosensitive lithographic printing plate.

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The examiner's rejection of claims 1, 3-6, 9-11 and 13-15 over Lauke in view of Nippon is another matter. Appellants do not dispute the examiner's factual determination that Lauke discloses the claimed lithographic printing plate with the exception of "the use of nitric acid in treatment of the substrate surface" (page 10 of Answer, first sentence). Nippon, on the other hand, evidences that it was known in the art to make photosensitive lithographic printing plates by electrolytic surface roughening the aluminum substrate with either nitric acid or hydrochloric acid, depending upon the particular use desired. Nippon discloses the following at page 2 of the English translation:

The difference in the pit structure of the roughened surface has a significant influence on the printing performance and print run of the plates. The plates prepared by surface roughening processing using a hydrochloric acid based electrolyte are appropriate for printing newspaper, magazines, etc. with [the size of the] print run as the emphasis. On the other hand, the plates prepared by surface roughening processing using a nitric acid based electrolyte are appropriate for printing calendars, catalogs, and other commercial art printing matter that require fine images. However, the print run is worse than that of the former type of plates, so that the print number is relatively small. Consequently, the two types of plates have their respective ranges of applications [last paragraph].

Consequently, based on the collective teachings of Lauke and Nippon, we are satisfied that it would have been prima facie

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obvious for one of ordinary skill in the art to substitute the hydrochloric acid electrolytic surface roughening of Lauke with the nitric acid electrolytic surface roughening of Nippon for applications wherein high print quality is the objective, i.e., as with printing calendars, catalogs, etc.

Appellants contend that the examiner has mischaracterized the disclosure of Nippon as disclosing a printing plate with a photosensitive layer. According to appellants, "Nippon discloses a method for preparing a satin-finished aluminum plate for offset printing, but neither discloses nor suggests a photosensitive layer formed on the printing plate" (sentence bridging pages 4 and 5 of Reply Brief). We, however, find the examiner's characterization of Nippon to be factually supported. We say this because a reading of Nippon makes it clear that it is directed to photosensitive printing plates having electrolytic roughened supports. For instance, Nippon discloses that "[u]sually, when an aluminum plate is used as the feed plate in offset printing, in order to improve the adhesiveness of the photosensitive film and to impart water retentivity for the non-image-line portion, a surface roughening processing should be performed" (page 2 of translation, third paragraph). Also, after discussing the particulars of the invention, Nippon discloses

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that "[a]s a result, it is possible to obtain rough-surface plates with even better adhesiveness to photosensitive film, water retentivity and wear resistance" (page 3 of translation, fourth paragraph, emphasis added). In addition, the reference discloses that "[f]or the obtained rough-surface plate, plate manufacturing was performed using a diazo-based photosensitive solution. The obtained plate was then used to perform offset printing" (page 5 of English translation, third paragraph). Manifestly, appellants err in arguing that Nippon does not disclose or suggest a photosensitive layer formed on the printing plate.

Appellants also rely upon the specification data as evidence of nonobviousness, i.e., unexpected results. Appellants maintain that the specification data demonstrates that using a combination of a phosphate-containing unsaturated monomer and nitric acid roughening of the aluminum support results in an unexpectedly superior printing plate compared to printing plates comprising only one of either a nitric acid treated support or a phosphate-containing unsaturated monomer in the photosensitive resin layer.

In addition to not establishing that the specification data would be considered truly unexpected by one of ordinary skill in

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the art, appellants have not established that the specification results are reasonably commensurate in scope with the degree of protection sought by the appealed claims. In re Grasselli, 713 F.2d 731, 743, 218 USPQ 769, 778 (Fed. Cir. 1983); In re Clemens, 622 F.2d 1029, 1035, 206 USPQ 289, 296 (CCPA 1980). The examiner's criticism of the non-commensurate nature of the data is well-founded inasmuch as the specification presents only one composition which corresponds to the claimed phosphate-containing unsaturated monomer. The specification, at page 43, identifies the phosphate-containing compound in accordance with the invention as PM-2, which is a specific mixture of two unsaturated phosphate-containing compounds. On the other hand, claim 1, with which all the appealed claims stand or fall, broadly embraces any ethylenically unsaturated bond-containing monomer (A) which contains a phosphate compound having at least one (meth)acryloyl group. Simply stated, appellants' single mixture of two particular phosphate-containing unsaturated monomers hardly establishes that the extensive class of compounds within the scope of claim 1 produces superior results which correspond to the specification results. In re Landgraff, 436 F.2d 1046, 1050, 168 USPQ 595, 597 (CCPA 1971). Accordingly, it is our judgment that appellants' evidence of nonobviousness is not of sufficient

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probative value to outweigh the evidence of obviousness represented by the collective teachings of Lauke and Nippon.

In conclusion, based on the foregoing, the examiner's rejections of claims 1-15, using Nishikawa as a primary reference, are reversed. The examiner's rejection of claims 1, 3-6, 9-11 and 13-15 under 35 U.S.C. § 103 over Lauke in view of Nippon is affirmed. As a result, the examiner's decision rejecting the appealed claims is affirmed-in-part.

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

AFFIRMED-IN-PART

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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ROMULO H. DELMENDO)	BOARD OF PATENT
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