

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

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES RALPH CASE, MICHAEL JAMES CUMMINGS,
JOHN MICHAEL GRIFFIN, and MICHAEL VITO LONGO

Appeal No. 2002-1127
Application No. 09/042,897

ON BRIEF

Before STONER, Chief Administrative Patent Judge, and COHEN and STAAB, Administrative Patent Judges.

STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 12-14, all the claims currently pending in the application. The amendment filed subsequent to the final rejection has been entered.

Appellants' invention pertains to a method for cutting a photoresist film web material. An understanding of the invention can be derived from a reading of exemplary claim 12, which is reproduced in Appendix "A" to the main brief.

The references relied upon by the examiner in the final rejection are:

Helprin	2,310,838	Feb. 09, 1943
Miyake	4,743,325	May 10, 1988
D'Angelo et al.	5,442,983	Aug. 22, 1995

Claims 12-14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyake in view of D'Angelo.

Claims 12-14 stand further rejected under 35 U.S.C. § 103(a) as being unpatentable over Miyake in view of Helprin.

Reference is made to appellants' main and reply briefs (Paper Nos. 20 and 22) and to the examiner's answer (Paper No. 21) for the respective positions of appellants and the examiner regarding the merits of these rejections.

Discussion

As may be discerned from a reading of claim 12, appellants' method includes the steps of cutting a photoresist film web by utilizing first and second blades fixedly positioned on a blade holder that moves in first and second directions substantially perpendicular to the direction of motion of the web, wherein said blades are positioned at an angle of from about ten degrees to about fifteen degrees relative to the web material.

Miyake pertains to a method of sticking film sheet material 6 on a panel surface 2, which method includes the step of cutting a moving film web by engaging the web with a rotating circular cutter 27 rotatably mounted in a holder 26 and moving the holder in a direction substantially perpendicular to the direction of motion of the web. The examiner acknowledges that Miyake does not disclose a blade holder having first and second blades fixedly mounted thereto, wherein the blades are angled relative to the web. The examiner turns alternatively to D'Angelo or Helprin for a teaching of these features.

D'Angelo discloses an apparatus for feeding, cutting and dispensing a sheet of web material. The apparatus includes a motor driven cutting assembly 90 mounted on a rotatable shaft 94 that extends in a direction perpendicular to the direction of motion of the web. The cutting assembly includes a linear actuator 92 having wheel units 93 that engage the shaft 94 such that rotation of the shaft results in reciprocation of the cutting assembly back and forth along the shaft in order to cut the web material. As best seen in Figure 10, the cutting assembly includes first and second blades 85, 86 fixedly mounted thereon, wherein the blades are positioned at an acute angle relative to the web.

Helprin discloses a paper cutter comprising a manually operated cutting head 31 mounted for reciprocation along a guide rod 27. Figure 6 shows an embodiment of the cutting head that includes first and second blades 77 fixedly mounted thereon, wherein the blades are positioned at an acute angle relative to the paper to be cut.

The examiner notes that Miyake discloses (column 10, lines 3-6) that any cutting tool may be utilized in the practice of Miyake's method. Based on this disclosure and the disclosures of D'Angelo and Helprin of other cutting tools for cutting sheet material, the examiner considers that it would have been obvious to one of ordinary skill in the art at the time of appellants' invention to practice the method of Miyake by utilizing a cutting head of the type disclosed by D'Angelo or Helprin, wherein the cutting head includes first and second blades fixedly mounted to the head at an acute angle relative to the web. Concerning the claim requirement that the blades are positioned at an angle of from about ten degrees to about fifteen degrees relative to the web material, the examiner has advanced several theories (answer, page 14) as to why this limitation does not patentably distinguish over the applied prior art. The examiner also considers that the particular film material being cut does not distinguish over the applied prior art.

Among the arguments made by appellants in the main and reply briefs is the recurring argument that "[t]he rejections of the claims on appeal are deficient with respect to providing proper motivation of a person having skill in the art to combine the various applied art references in the combination and manner suggested by the Examiner" (main brief, page 10).

We appreciate that Miyake states at column 10, lines 3-6, that any known cutting tool may be utilized in the practice of Miyake's method. We also appreciate that D'Angelo and Helprin disclose fixed blade cutters for cutting sheet material. Notwithstanding these disclosures, we fail to perceive any teaching or suggestion of the advantage, and thus the obviousness, of substituting fixed blade cutters of the type disclosed by D'Angelo and Helprin for Miyake's rotating circular

cutting blade. First, the motivation alluded to by the examiner in rejecting the claims (i.e., that providing the cutters of D'Angelo or Helprin in Miyake would facilitate the cutting of the web material in Miyake) is presumably already provided by Miyake's rotary cutter. Second, in contrast to the examiner, we do not view Miyake's general statement at column 10, lines 3-6, that other known cutting tools may be utilized in the practice of Miyake's method as an invitation to substitute virtually any prior art cutter in place of Miyake's rotary cutter blade. The prior art must suggest the desirability of the substitution in order to establish the obviousness of the proposed modification. *See In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed Cir. 1990); *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984) ("The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification."). In our view, the only suggestion for modifying Miyake's method in the manner proposed by the examiner to meet claim requirement that the blades are fixedly positioned on the holder stems from impermissible hindsight knowledge derived from the appellants' own disclosure. Third, the examiner's assertion that Miyake provides motivation to combine "by the fact that it would not be necessary to provide a separate motor to rotate a circular cutter if the circular cutter is replaced by the fixed blades" (answer, page 7) is not well taken because the alleged advantage is not taught by Miyake or either of the other applied prior art references. In fact, Miyake's teaching of one and two motor alternatives (column 4, lines 35-45) suggests that Miyake is unconcerned as to whether one or two motors are utilized. For these

reasons, we shall not sustain the examiner's rejections of claims 12-14 as being unpatentable over Miyake in view of either D'Angelo or Helprin.

We also find the examiner's treatment of the claim recitations (1) that the blades are positioned at an angle of from about ten degrees to about fifteen degrees relative to the web material and (2) that the film material being cut is a photoresist film web to be worthy of comment. As to (1), the advantage urged by appellants for the claimed blade angle may not be dismissed because it is not mentioned in appellants' original disclosure as the examiner has done here (answer, page 17).¹ Nor is it dispositive of the obviousness issue that appellants have not shown the claimed range of blade angle to be critical.² In addition, the principle of optimization of a variable would not appear to be apply here with respect to the angle of the cutter blade.³ Concerning (2), the positive recitation of cutting photoresist film web material in the body of claim 12 dictates that the particular

¹Simply because the asserted advantage is not included in the original specification does not mean that such advantage need not be considered. *See In re Chu*, 66 F.3d 292, 298, 36 USPQ2d 1089, 1094 (Fed. Cir. 1995).

²A *prima facie* case of obviousness cannot be premised on a lack of criticality because criticality is not a requirement for patentability under the patent statute, but is merely one of the indicia suggestive of nonobviousness. *See, for example, In re Luvisi*, 342 F.2d 102, 108, 144 USPQ 646, 651 (CCPA 1965)).

³While the discovery of the optimum value of a variable in a known process is normally obvious, this principle does not apply where the parameter optimized is not recognized in the art as being a result-effective variable. *In re Antoine*, 559 F.2d 618, 621, 195 USPQ 6, 8-9 (CCPA 1977). In the present case, the examiner has not established that the blade angle is recognized in the art as being a result-effective variable. Hence, the principle of optimization does not apply.

Appeal No. 2002-1127
Application No. 09/042,897

material being worked upon must be taken into consideration in determining the patentability of the appealed claims.

The decision of the examiner finally rejecting the appealed claims is reversed.

REVERSED

BRUCE H. STONER, JR.)	
Chief Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
IRWIN CHARLES COHEN)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
LAWRENCE J. STAAB)	
Administrative Patent Judge)	

LJS/lp

Appeal No. 2002-1127
Application No. 09/042,897

ERIC J. FRANKLIN
POLLOCK, VANDE SANDE & AMERNICK
STE. 800, 1990 M STREET, N.W.
P.O. BOX 19088
WASHINGTON, DC 20036