

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 24

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SHIGENORI KOIDO, MITSURU KISHIMOTO, NOBORU OOISHI,
MASAHIKO SHIMOSUGI and KIYOSHI IKEDA

Appeal No. 1999-2108
Application No. 08/654,371¹

ON BRIEF

Before COHEN, ABRAMS, and FRANKFORT, ***Administrative Patent Judges***.

ABRAMS, ***Administrative Patent Judge***.

DECISION ON APPEAL

¹ Application for patent filed May 28, 1996.

This is an appeal from the decision of the examiner finally rejecting claims 1-5, 10 and 11, which constitute all of the claims remaining of record in the application.²

The appellants' invention is directed to a method of manufacturing a print head for use with an ink jet printer. The claims on appeal have been reproduced in an appendix to the Brief.

THE REFERENCES

The references relied upon by the examiner to support the final rejection are:

Teshima et all. (Teshima)	5,593,080	Jan.14, 1997
		(filed Jun. 12,
1995)		

The admitted prior art as described on pages 1-4 and in Figures 11-13 of the appellants' specification.

THE REJECTION

Claims 1-5, 10 and 11 stand rejected under 35 U.S.C. § 103 as being unpatentable over the admitted prior art in view of Teshima.

² We note that while the examiner indicated in Paper No. 13 that claim 2 contained allowable subject matter, it nevertheless was not removed from the final rejection.

OPINION

Rather than attempt to reiterate the examiner's full commentary with regard to the above-noted rejections and the conflicting viewpoints advanced by the examiner and the appellants regarding the rejections, we make reference to the Examiner's Answer (Paper No. 19) and to the Appellants' Briefs (Papers Nos. 15 and 20).

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a *prima facie* case of obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See,

for example, **Uniroyal, Inc. V. Rudkin-Wiley Corp.**, 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1052 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988).

The appellants' invention is directed to a method of manufacturing a print head of the type having a plurality of ink pressure chambers defined by adjacent walls and having a top bonded onto the top surfaces of the walls. According to the appellants, in the prior art the adhesive for bonding the cover to the top surfaces of the chamber walls was applied by placing a mask across the top surfaces of the walls and then moving a bead of adhesive in a direction parallel to the length of the walls defining the chambers by means of a squeegee. This gave rise to several problems, including variations in the thickness of the adhesive and leakage of the adhesive into the pressure chambers during installation of the cover. Briefly stated, the appellants discovered that these problems could be eliminated by applying the adhesive by moving the squeegee in a direction essentially only perpendicular to directions in which the walls extend (independent claims 1, 10 and 11), and by making the end walls that define the chambers of a greater

thickness than the intermediate walls and then applying the adhesive to less than the entire top surface of the end walls (dependent claims 3-5).

As for the independent claims, it is the examiner's view that the admitted prior art teaches all of the subject matter recited except for the direction of movement of the adhesive during application. However, it is the examiner's position that to apply the adhesive in the manner required by the claims would have been obvious to one of ordinary skill in the art in view of the teachings of Teshima. We do not agree.

Teshima is directed to depositing adhesive upon the surface of printed circuit boards in order to bond circuit components thereto. Some of the patterns of adhesive deposited are elongated and others are symmetrical, and the patent points out that problems are encountered with the deposition of the adhesive in the elongated patterns, no matter what the direction of movement of the squeegee with respect to their axis. Teshima solves these problems by eliminating elongated patterns of adhesive deposition in favor of symmetrical ones, such as circles or squares, so that any detrimental effect caused by the direction of movement of the

squeegee is nullified, that is, the direction in which the squeegee is moved simply doesn't matter (column 6, lines 51-56). Thus, from our perspective, one of ordinary skill in the art would have been taught by Teshima to modify the admitted prior art system by replacing the elongated deposits on the tops of the chamber walls by a series of circular or square deposits, rather than by moving the squeegee only perpendicular to the direction in which the walls extend, as is required by the appellants' claims. The examiner's statement on page 4 of the Answer that the selection of the squeegee direction would have been obvious because it "per se solves no stated problem nor serves any apparent purpose as evidenced by Teshima et al." simply is not correct, in that the appellants have explained both the problem and the advantages of their solution in the specification (pages 1-6, 9 and 10).

The mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See ***In re Gordon***, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). In the present situation, we fail to perceive any

teaching, suggestion or incentive which would have led one of ordinary skill in the art to provide the admitted prior art method with the changes proposed by the examiner, other than the hindsight accorded one who first viewed the appellants' disclosure. This, of course, is an improper basis upon which to base a conclusion of obviousness. See ***In re Fritch***, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). In the final analysis, the combined teachings of the admitted prior art and Teshima fail to establish a *prima facie* case of obviousness with regard to the subject matter of any of the independent claims.

SUMMARY

The rejection of claims 1-5, 10 and 11 is not sustained.

The decision of the examiner is reversed.

REVERSED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
)	
)	
)	
)	BOARD OF PATENT
NEAL E. ABRAMS)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
)	
)	
CHARLES E. FRANKFORT)	
Administrative Patent Judge)	

NEA/jlb

Appeal No. 1999-2108
Application No. 08/654,371

Page 9

LAW OFFICE OF STEVEN M. RABIN
SUITE 1111
1725 K STREET NW
WASHINGTON, DC 20006