

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(2) is not binding precedent of the Board.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. 11

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER T. HANSEN

Appeal No. 99-0228
Application 08/721,504¹

ON BRIEF

Before MEISTER, ABRAMS, and FRANKFORT, Administrative Patent
Judges.

ABRAMS, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed September 26, 1996.
According to appellant, this application claims the benefit
under 35 U.S.C. § 119(e) of the filing date of Provisional
Application No. 60/005,476, filed October 16, 1995.

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This is an appeal from the decision of the examiner finally rejecting claims 1-16, which constitute all of the claims of record in the application.

The appellant's invention is directed to a hole cutting apparatus (claims 1-12) and method (claims 13-16). The invention is illustrated by reference to claims 1 and 13, which read as follow:

1. A hole cutting apparatus, comprising:

a hollow tube having:

a distal end terminating in a cutting edge;

a proximal end;

a lumen, extending between said distal and proximal ends, said lumen being of smaller diameter near said distal end than at said proximal end; and

ejection means constructed and arranged for urging a slug of material cut by said hollow tube from a piece of said material and lodged in said distal end towards said proximal end.

13. In the method of cutting a hole in material having a thickness by forcing the distal end of a hollow cutting tube having distal and proximal ends through said material to remove a discard slug having said thickness of said material, removing said tube from said material, and ejecting said slug from said tube, the improvement comprising:

providing said cutting tube in the form of a hollow tube having a lumen, extending between said distal and proximal ends, said lumen being of smaller diameter near said distal end than at said proximal end; and

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ejecting slugs of material from said proximal end.

THE REFERENCES

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

MacGregor	2,424,474	Jul.
22, 1947		
Dann	2,463,455	Mar.
1, 1949		

THE REJECTION

Claims 1-16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Dann in view of MacGregor.

OPINION

Rather than reiterate the examiner's explanation of the rejection and the appellant's arguments in response thereto, we refer to the Examiner's Answer (Paper No. 10) and the Appeal Brief (Paper No. 7).

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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, 1439 (Fed. Cir.), *cert. denied*, 488 U.S. 825 (1988).

The appellant's invention is directed to hollow punches and hole cutters, and focuses on the problem of removing the cut-out portion of a substrate (the slug) from the substrate, especially when the substrate is a medical catheter or the like. The invention is manifested in independent apparatus

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claim 1 by the recitation of a hollow tube terminating at its distal end in a cutting surface and being of a smaller diameter near the distal end than at the proximal end, and ejection means for urging the slug cut by the hollow tube and lodged in the distal end of the tube toward the proximal end. Independent method claim 13 contains the same limitation.

Dann, the primary reference, discloses a punch for cutting slugs from a semisolid material such as bacterial culture media and forming them into cups into which liquid can be placed. The apparatus for accomplishing this comprises coaxial inner (1) and outer (4) hollow tubes, each of which terminates at its distal end in a cutting edge (2 and 6). Air inlet holes (7) are provided in the outer tube at a point adjacent to the cutting edge, and a source of vacuum is connected to the proximal end of the inner tube to pull the slug through the inner tube. In operation, the cutting edge of the outer tube creates a disc-shaped slug from the semisolid media which, when pulled through the inner tube by the vacuum, is formed into a cup-like configuration inasmuch as the distal opening in the inner tube is of a lesser diameter than the slug. Dann does not disclose a single

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hollow tube having a diameter that is less near the distal end than at the proximal end.

MacGregor is directed to a hollow punch for piercing soft materials such as leather. The punch has a sharp edge at its distal end and the hollow opening tapers towards the cutting edge so that the slugs can gradually move along the interior of the punch without becoming wedged therein (column 2). It is the examiner's position that it would have been obvious to one of ordinary skill in the art to provide the Dann punch with a tapered interior opening in view of the teachings of MacGregor,

suggestion being found in permitting the slugs to move through the Dann interior opening without becoming wedged therein. We do not agree.

One of the key aspects of the Dann invention is to subject the slug to a more restricted opening as it moves away from the cutting edge of the tube, in order to cause it to become cup-shaped. Eliminating this feature would destroy the Dann invention, which in our view would operate as a disincentive to make the changes proposed by the examiner. In addition, such a modification would appear to require a

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wholesale reconstruction of the Dann device, which constitutes a second disincentive. 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). We fail to perceive any teaching, suggestion or incentive in either of the applied references which would have led one of ordinary skill in the art to modify the Dunn punch in such a fashion as to meet the terms of claim 1. These references fail to establish a *prima facie* case of obviousness with regard to the subject matter recited in independent claims 1 and 13, and we therefore will not sustain the rejection of these claims or, it follows, of claims 2-12 and 14-16, which depend therefrom.

NEW REJECTION

Pursuant to our authority under 37 CFR § 1.196(b), we make the following new rejection:

Claims 13 and 14 are rejected under 35 U.S.C. § 102(b) as being anticipated by MacGregor.

The preamble of claim 13 establishes that the invention is directed to an improvement in the method of cutting a hole in material by forcing the distal end of a hollow cutting tube through a material to remove a discard slug, removing the tube from the material, and ejecting the slug from the tube. The improvement comprises, according to the body of the claim,

providing said cutting tube in the form of a hollow tube having a lumen, extending between said distal and proximal ends, said lumen being of smaller diameter near said distal end than at said proximal end; and

ejecting slugs of material from said proximal end.

In Figures 5-8 MacGregor discloses a punch comprising a cutting tube in the form of a hollow tube (18) having a lumen (20) extending between the proximal and distal ends and being of a smaller diameter near the distal end than at the proximal end (column 2, lines 8-11). To the extent that the preamble is not considered as establishing that slugs of material are ejected from the proximal end of the prior art punches to which the claimed method is an improvement, it is apparent that such is the case in the MacGregor punch (column 2, lines 12-15). Thus, the method inherent in the use of the MacGregor punch anticipates the method recited in claim 13. With regard

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to dependent claim 14, a shoulder (unnumbered) separates the tapered first portion (21) extending from the cutting edge from a second portion (20) extending to the proximal end. It appears clear to us from the disclosure that the cross sectional configuration of the first portion is "substantially congruent" with the cross sectional shape of the slug cut by the edge (19), and the cross sectional configuration of the second portion is of such increased size as to permit free travel of the slug, which is of lesser size.

SUMMARY

The examiner's rejection is not sustained.

The decision of the examiner is reversed.

A new rejection of claims 13 and 14 under 35 U.S.C. § 102(b) has been entered.

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b)(amended effective Dec. 1, 1997, by final rule notice, 62 Fed. Reg. 53,131, 53,197 (Oct. 10, 1997), 1203 Off. Gaz. Pat. & Trademark Office 63, 122 (Oct. 21, 1997)).

37 CFR

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§ 1.196(b) provides that, "A new rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner. . . .

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record. . . .

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

REVERSED § 1.196(b)

	James M. Meister)	
	Administrative Patent Judge)	
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)	
	Neal E. Abrams)	BOARD OF
PATENT)	
	Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
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