

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte GERHARD HEMPRECHT

Appeal No. 1997-2195
Application 08/102,752

ON BRIEF

Before KIMLIN, PAK, and OWENS, *Administrative Patent Judges*.
OWENS, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 2-7 and refusal to allow claim 1 as amended after final rejection. These are all of the claims remaining in the application.

THE INVENTION

Appellant claims substituted 2-amino(fluoroalkoxy)-pyrimidines having a recited formula, and a process for making

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them. Appellant states that these pyrimidines are especially useful as intermediates for making crop protection agents. Claims 1 and 2 are illustrative and are appended to this decision.

THE REFERENCES

Meyer et al. (Meyer) 1985	4,518,776	May 21,
Lachhein 1989	4,831,138	May 16,
Hamprecht (Hamprecht '927) 1991	5,011,927	Apr. 30,
		(filed Dec. 18,
1989)		
Hamprecht (Hamprecht '332) 1994	5,283,332	Feb. 1,
Lachhein et al. (Lachhein) ¹ 1988	279,366	Aug. 24,
(European patent publication)		

THE REJECTIONS

Claims 2-5 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 2-5 of each of Hamprecht '143 and Hamprecht '332. Claims stand

¹ Citations herein to this reference are to the English translation thereof which is of record.

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rejected under 35 U.S.C. § 103 as follows: claim 1 over Lachhein;
claims 1, 6 and 7 over Hamprecht '927 in view of Lachhein;
claims
1, 6 and 7 over Meyer; and claims 2-5 over Hamprecht '927.²

OPINION

Appellant does not challenge the obviousness-type double patenting rejections (brief, page 5). We therefore summarily affirm these rejections.

As for the rejections under 35 U.S.C. § 103, we have carefully considered all of the arguments advanced by appellant and the examiner and agree with appellant that these rejections are not well founded. Accordingly, we reverse the rejections under 35 U.S.C. § 103.

Rejection of claim 1 over Lacchein

Lacchein discloses pyrimidines which are useful as intermediates in the production of sulfonylureas which have a herbicidal effect (page 3). The pyrimidines have hydrogen at the

² A rejection of claim 1 under 35 U.S.C. § 102(b) over Lachhein is withdrawn in the answer (page 2).

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5-position, can have an amino group at the 2-position, and a halo (C₁-C₄)alkoxy group at the 4- and 6-positions (page 2). In a table of substituents of pyrimidines which Lacchein states can be produced, the substituent at the 4- and 6-positions is trifluoromethoxy (pages 9-10).

The examiner argues that it would have been obvious to one of ordinary skill in the art to select from Lacchein's generic disclosure of halo(C₁-C₄)alkoxy substituents at the 4- and 6-positions, appellant's chlorodifluoromethoxy substituent at the 4-position and trifluoromethoxy substituent at the 6-position (answer, page 3).

Appellant argues, in reliance upon a declaration by Hamprecht (filed December 12, 1991 in Application No. 07/663,975, Paper No. 9), that producing appellant's pyrimidines by the method in U.S. 4,831,138 to Lacchein (col. 1, lines 52-58), which is the method disclosed in the Lacchein reference relied upon by the examiner (page 3), requires trifluoromethanol as a reagent (declaration, pages 5-6). Hamprecht argues, in reliance upon published technical articles, that because trifluoromethanol is

extremely unstable, it could not have been used to make appellant's pyrimidines.³

The examiner argues that the Hamprecht declaration is not persuasive because Lachhein's halo(C₁-C₄)alkoxy group encompasses appellant's chlorodifluoromethoxy group (answer, page 7). The examiner, however, does not address Hamprecht's reasoning as to why appellant's trifluoromethoxy substituent could not be formed using Lacchein's method.

Because Hamprecht presents supported technical reasoning as to why appellant's pyrimidines could not have been made by one of ordinary skill in the art from Lacchein's disclosure, and the examiner has presented no evidence or technical reasoning to the contrary, we conclude that the examiner has not carried the burden of establishing a *prima facie* case of obviousness of appellant's claimed invention over Lacchein.

*Rejection of claims 1, 6 and 7 over
Hamprecht '927 in view of Lacchein*

³ Appellant prepares his pyrimidines by a method which does not use trifluoromethanol (specification, page 6, lines 10-14).

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Hamprecht '927 discloses pyrimidines which are useful as intermediates for crop protecting agents (col. 6, lines 65-68). These pyrimidines differ from those of appellant in that at the 6-position, the Hamprecht '927 pyrimidines have an $-OR^2$ group, where R^2 is alkyl, alkenyl, alkynyl, cycloalkyl, phenyl or benzyl (col. 1, lines 5-21), rather than having appellant's trifluoromethoxy group.

The examiner argues that it would have been obvious to one of ordinary skill in the art to substitute a trifluoromethoxy group for the methoxy group in Hamprecht's example 1 because Lacchein (table, page 10) teaches the equivalence of methoxy and trifluoromethoxy substituents in a pyrimidine in an analogous art (answer, page 4). The examiner, however, does not explain how one of ordinary skill in the art would have formed the trifluoromethoxy substituent. As discussed above, the Hamprecht declaration indicates that one of ordinary skill in the art could not have formed such a substituent using Lacchein's method, and the examiner has presented no evidence or technical reasoning to the contrary. Accordingly, we conclude that the examiner has not established a *prima facie* case of obviousness of appellant's

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claimed invention over the combined teachings of Hamprecht '927 and Lacchein.

Rejection of claims 1, 6 and 7 over Meyer

Meyer discloses pyrimidines which are useful as intermediates for making sulfonylureas having a herbicidal action (col. 1, lines 4-7; col. 2, lines 36-47). Meyer's pyrimidines can have a halo(C₁-C₄)alkoxy substituent at the 6-position (col. 1, lines 49-52; col. 2, lines 36-47). One of the preferred substituents at the 6-position is difluoromethoxy (col. 3, lines 1-6). The only disclosure by Meyer regarding how to make the pyrimidines is that they can be made by known methods (col. 4, lines 1-3).

The examiner argues that it would have been obvious to one of ordinary skill in the art to select trifluoromethoxy as Meyer's halo(C₁-C₄)alkoxy substituent (answer, page 6). The examiner does not explain, however, in response to the Hamprecht declaration, how one of ordinary skill in the art would have formed the trifluoromethoxy substituent. Consequently, we conclude that the examiner has not established a *prima facie* case

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of obviousness of appellant's claimed invention over Meyer.

Rejection of claims 2-5 over Hamprecht '927

Hamprecht '927 discloses reacting a pyrimidine having fluorine at the 2-position with an amine to substitute an amino group for the fluoro substituent (col. 4, lines 20-53). At the 6-position, the Hamprecht '927 pyrimidine has an -OR² group, where R² is alkyl, alkenyl, alkynyl, cycloalkyl, phenyl or benzyl (col. 1, lines 5-21).

The examiner argues, in reliance upon a number of cases including *In re Durden*, 763 F.2d 1406, 226 USPQ 359 (Fed. Cir. 1985), that "the mere use of different starting materials, whether novel or known, in a conventional process to produce the product one would expect therefrom does not render the process unobvious" (answer, page 8).

The examiner reached his conclusion of obviousness of appellant's claimed invention based on a *per se* rule that use of a new starting material in a prior art process would have been obvious to one of ordinary skill in the art. As stated by the Federal Circuit in *In re Ochiai*, 71 F.3d 1565, 1572, 37 USPQ2d

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1127, 1133 (Fed. Cir. 1995), "reliance on *per se* rules of obviousness is legally incorrect and must cease." The court further stated:

Mere citation of *Durden*, *Albertson*, or any other case as a basis for rejecting process claims that differ from the prior art by their use of different starting materials is improper, as it sidesteps the fact-intensive inquiry mandated by section 103. In other words, there are not "*Durden* obviousness rejections" or "*Albertson* obviousness rejections," but rather only section 103 obviousness rejections.

Ochiai, 71 F.3d at 1570, 37 USPQ2d at 1132.

When an examiner is determining whether a claim should be rejected under 35 U.S.C. § 103, the claimed subject matter as a whole must be considered. See *Ochiai*, 71 F.3d at 1569, 37 USPQ2d at 1131. The subject matter as a whole of process claims includes the starting materials and product made. When the starting and/or product materials of the prior art differ from those of the claimed invention, the examiner has the burden of explaining why the prior art would have motivated one of ordinary skill in the art to modify the materials of the prior art process so as to arrive at the claimed invention. See *Ochiai*, 71 F.3d at 1570, 37 USPQ2d at 1131. The examiner has not provided such

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an explanation or explained why, even if one of ordinary skill in the art had been motivated by Hamprecht '927 to form a trifluoromethoxy substituent, the reference would have enabled such a person to do so. The examiner, therefore, has not carried the burden of establishing a *prima facie* case of obviousness of appellant's claimed process over Hamprecht '927.

DECISION

The rejections of claims 2-5 under the judicially created doctrine of obviousness-type double patenting over claims 2-5 of each of Hamprecht '143 and Hamprecht '332 are affirmed. The rejections under 35 U.S.C. § 103 of claim 1 over Lachhein, claims 1, 6 and 7 over Hamprecht '927 in view of Lacchein, claims 1, 6 and 7 over Meyer, and claims 2-5 over Hamprecht '927, are reversed.

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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).

AFFIRMED-IN-PART

Edward C. Kimlin)	
Administrative Patent Judge)	
)	
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Chung K. Pak)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
Terry J. Owens))
Administrative Patent Judge)	

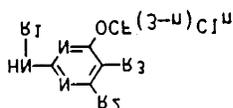
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APPENDIX

1. A substituted 2-amino(fluoroalkoxy)pyrimidine of the formula I

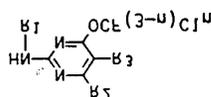


I

where

R¹ is hydrogen, C₁-C₄-alkyl, C₃-C₄-alkenyl or C₃-C₄-alkynyl,
R² is hydrogen, halogen, C₁-C₄-haloalkyl, chlorodifluoromethoxy,
R³ is hydrogen, halogen or C₁-C₄-haloalkyl and
n is 0.

2. A process for preparing a 2-amino(fluoroalkoxy)pyrimidine of formula I



I

where

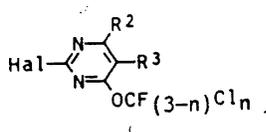
R¹ is hydrogen, C₁-C₄-alkyl, C₃-C₄-alkenyl or C₃-C₄-alkynyl,
R² is hydrogen, halogen, C₁-C₄-haloalkyl, trifluoromethoxy or
chlorodifluoromethoxy,

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R^3 is hydrogen, halogen or C_1 - C_4 -haloalkyl and

n is 0,

which comprises
the formula II



II

reacting a 2-halopyrimidine of

where Hal is fluorine, chlorine, bromine or iodine, and R^2 , R^3 and n have the abovementioned meanings, with an amine of the formula III

H-NH- R^1

III

where R^1 has the abovementioned meaning, in the presence or absence of an organic base.