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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte PETER S. FORGIONE, RAM B. GUPTA,
LAWRENCE A. FLOOD and DONALD H. VALENTINE

Appeal No. 1997-2196
Application No. 08/138,581

ON BRIEF

Before OWENS, ROBINSON, and LORIN, Administrative Patent Judges.

OWENS, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the examiner's final rejection of claims 1-37, which are all of the claims in the application.

THE INVENTION

Appellants claim a process for making carbonylated derivatives of (halo)amino-1,3,5-triazines by reacting recited amino-1,3,5-triazines with carbon monoxide, and a process for preparing carbamate functional derivatives of (halo)amino-1,3,5-triazines by reacting recited amino-1,3,5-triazines with carbon

monoxide and a hydroxy compound. Appellants use, in the processes, a metal catalyst system containing a metal promoter for promoting carbonylation. Claims 1 and 19 are illustrative and are appended to this decision.

THE REFERENCES

References relied upon by the examiner

Stern et al. (Stern)	3,405,156	Oct. 08, 1968
Henry	3,641,092	Feb. 08, 1972

Shinsuke Fukuoka et al. (Fukuoka), "A Novel Catalytic Synthesis of Carbamates by Oxidative Alkoxycarbonylation of Amines in the Presence of Palladium and Iodide", *J. Chem. Soc., Chem. Commun.* 399-400 (1984).

Reference relied upon by appellants

Edwin M. Smolin and Lorence Rapoport (Smolin), *s-Triazines and Derivatives* 333-56 (Interscience Publishers 1959).

THE REJECTIONS

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1-18 and 21 over Stern or Henry, and claims 19, 20 and 22-37 over Fukuoka.

OPINION

We have carefully considered all of the arguments advanced by appellants and the examiner and agree with appellants that the aforementioned rejections are not well founded. Accordingly, we reverse these rejections.

The examiner argues that the applied references disclose reacting amines, in the presence of metal promoters as a catalyst, with carbon dioxide or with carbon dioxide and a hydroxy compound, that the claims differ from the references only in that a different amine is used as the starting material, and that one of ordinary skill in the art would have expected appellants' amines and those in the references to react similarly (answer, pages 3-4). This argument is not well taken because, although appellants have challenged the argument (brief, page 4; reply brief, pages 2-3),[1] the examiner has provided no supporting evidence which establishes

[1] This argument relies, in part, upon Smolin.

that the applied references would have indicated to one of ordinary skill in the art that appellants' amino-triazines and the amines of the references react similarly.

Appellants argue, in reliance upon *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1996) and *In re Ochiai*, 71 F.3d 1565, 1570, 37 USPQ2d 1127, 1131 (Fed. Cir. 1995), that the examiner improperly has applied a *per se* rule of obviousness (reply brief, page 2). The examiner does not respond to this argument.

As argued by appellants, the examiner's position that application of a known process to a new starting material would have been obvious to one of ordinary skill in the art (answer, pages 3, 5 and 6) is based upon a *per se* rule.[2] As stated by the court in *Ochiai*, 71 F.3d at 1572, 37 USPQ2d at 1133:

> The use of *per se* rules, while undoubtedly less laborious than a searching comparison of the claimed invention - including all its limitations - with the

[2] The examiner mentions U.S. Patent 5,084,541 to Jacobs (answer, page 6). This reference is not included in the statement of the rejection and, therefore, is not properly before us. *See In re Hoch*, 428 F.2d 1341, 1342 n.3, 166 USPQ 406, 407 n.3 (CCPA 1970).

> teachings of the prior art, flouts section 103 and the fundamental case law applying it. *Per se* rules that eliminate the need for fact-specific analysis of claims and prior art may be administratively convenient for PTO examiners and the Board. Indeed, they have been sanctioned by the Board as well. But reliance on *per se* rules of obviousness is legally incorrect and must cease.

The examiner has not carried out the required fact specific analysis. That is, the examiner has not explained why evidence

relied upon by the examiner shows that one of ordinary skill in the art would have been led to make carbonylated derivatives of (halo)amino-1,3,5-triazines or carbamate functional derivatives of (halo)amino-1,3,5-triazines by the processes recited in appellants' claims, and would have had a reasonable expectation of success in doing so. *See In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991)*; In re O'Farrell*, 853 F.2d 894, 902, 7 USPQ2d 1673, 1680 (Fed. Cir. 1988); *In re Longi*, 759 F.2d 887, 892-93, 225 USPQ 645, 648 (Fed. Cir. 1985).

For the above reasons, we conclude that the examiner has not carried his burden of establishing a *prima facie* case of

obviousness of the invention recited in any of appellants' claims.

DECISION

The rejections under 35 U.S.C. § 103 of claims 1-18 and 21 over Stern or Henry, and claims 19, 20 and 22-37 over Fukuoka, are reversed.

REVERSED

TERRY J. OWENS Administrative Patent Judge	)
DOUGLAS W. ROBINSON Administrative Patent Judge	) BOARD OF PATENT APPEALS AND INTERFERENCES
HUBERT C. LORIN Administrative Patent Judge	)

vsh

Appeal No. 1997-2196
Application No. 08/138,581

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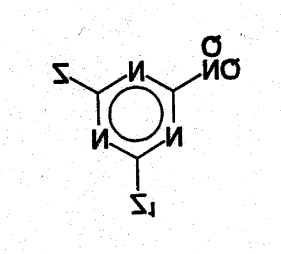
Appendix A
Claims 1, 19

1. A process for preparing carbonylated derivatives of (halo)amino-1,3,5-triazines, comprising the step of contacting:

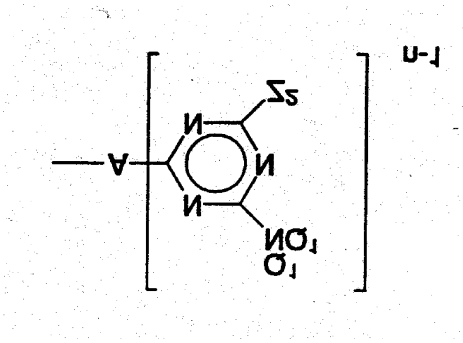
(a) a (halo)amino group-containing 1,3,5-triazine represented by the formula:



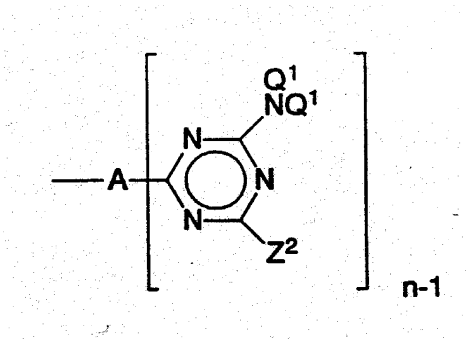
wherein

each Q is independently selected from the group consisting of hydrogen and halogen,

Z is selected from the group consisting of a group represented by the formula $-N(Q^1)_2$, and a group represented by the formula:



Z^1 is selected from the group consisting of hydrogen, hydrocarbyl, a group represented by the formula $-N(Q^1)_2$, and a group represented by the formula:



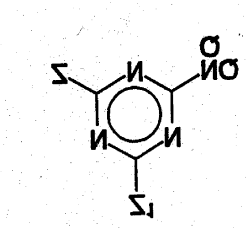
A is an n-functional anchor,
n is at least 2,
each Q^1 is independently selected from the group consisting of hydrogen, halogen, a hydrocarbyl and a hydrocarbyloxy hydrocarbyl, and
each Z^2 is independently selected from the group consisting of hydrogen, hydrocarbyl and a group represented by the formula $-N(Q^1)_2$;

(b) carbon monoxide; and

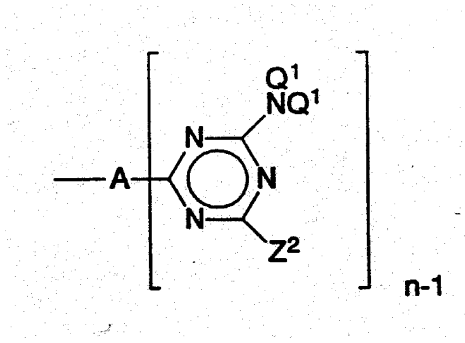
(c) a metal catalyst system containing a metal promoter for promoting carbonylation;
at a temperature, carbon monoxide pressure, and length of time sufficient to carbonylate at least a portion of the (halo)amino groups of the 1,3,5-triazine.

19. A process for preparing carbamate functional derivatives of (halo)amino-1,3,5-triazines, comprising the step of contacting:

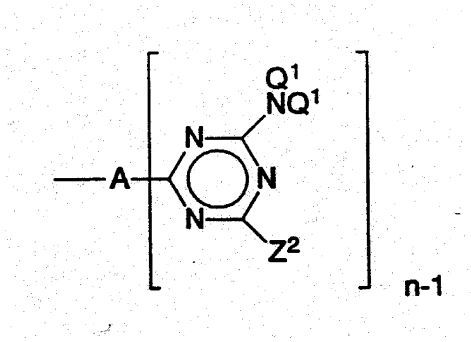
(a) a (halo)amino group-containing 1,3,5-triazine represented by the formula:



wherein each Q is independently selected from the group consisting of hydrogen and halogen, Z is selected from the group consisting of a group represented by the formula $-N(Q^1)_2$, and a group represented by the formula:



Z^1 is selected from the group consisting of hydrogen, hydrocarbyl, a group represented by the formula $-N(Q^1)_2$, and a group represented by the formula



A is an n-functional anchor,
n is at least 2,
each Q^1 is independently selected from the group consisting of hydrogen, halogen, a hydrocarbyl and a hydrocarbyloxy hydrocarbyl, and
each Z^2 is independently selected from the group consisting of hydrogen, hydrocarbyl and a group represented by the formula $-N(Q^1)_2$;

(b) carbon monoxide;

(c) a metal catalyst system containing a metal promoter for promoting carbonylation; and
(d) a hydroxy compound,
at a temperature, carbon monoxide pressure, and length of time sufficient to carbonylate at least a portion of the (halo)amino groups of the 1,3,5-triazine.