

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEFANO BIAGINI and MARIO COLLEPARDI

Appeal No. 96-0821
Application 07/973,870¹

ON BRIEF

Before WINTERS, WILLIAM F. SMITH and OWENS, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

This appeal was taken from the examiner's decision rejecting claims 12-22, which are all of the claims remaining in the application.

¹ Application for patent filed November 10, 1992. According to appellants, this application is a continuation of Application 07/743,845, filed August 12, 1991; which is a continuation of Application 07/483,196, filed February 22, 1990; both abandoned.

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REPRESENTATIVE CLAIM

Claim 12, which is illustrative of the subject matter on appeal, reads as follows:

12. A method of forming a humidified pozzolanic powder comprising spraying from 2 to 25% by weight of water on a pozzolanic composition while stirring the pozzolanic composition by means of a mechanical mixer until a uniformly humidified powder is obtained, said pozzolanic composition comprising from 50% to 80% by weight of silica fume and from 20% to 50% by weight of one or more non-silica fume pozzolans, all weights being based on the weight of the pozzolanic composition.

THE REFERENCES

The references cited and relied on by the examiner are:

Flood et al. (Flood)	3,832,434	Aug. 27, 1974
Styron	4,741,782	May 3, 1988

THE ISSUES

The issues presented for review are: (1) whether the examiner erred in rejecting claims 12 through 22 under 35 U.S.C. § 103 as unpatentable over Flood; and (2) whether the examiner erred in rejecting claims 12 through 22 under 35 U.S.C. § 103 as unpatentable over Styron.

DELIBERATIONS

Our deliberations in this matter have included evaluation and review of the following materials: (1) the instant specification, including all of the claims on appeal; (2) appellants' Appeal Brief and Reply Brief before the Board; (3)

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the Examiner's Answer; and (4) the above-cited prior art references.

On consideration of the record, including the above-listed materials, we reverse both prior art rejections.

OPINION

Independent claim 12 on appeal recites a pozzolanic composition comprising from 50% to 80% by weight of silica fume and from 20% to 50% by weight of one or more non-silica fume pozzolans. Likewise, independent claims 16 and 22 recite a pozzolanic composition comprising from 50% to 80% by weight of silica fume and from 20% to 50% by weight of a non-silica fume pozzolan. The Flood reference is clearly insufficient to support a conclusion of obviousness of claims containing those limitations. Flood discloses a method of treating colloidal silicon dioxide dust, i.e., the dust commonly found in waste gases from furnaces producing metallic silicon or silicon-containing alloys. Flood does not, however, disclose or suggest a pozzolanic composition comprising a mixture of 50% to 80% by weight of silica fume and from 20% to 50% by weight of a non-silica fume pozzolan. The examiner's finding, that the "silicon dioxide dust" of Flood would have suggested fly ash, is not supported by any factual evidence of record. See the Examiner's Answer, page 4, first paragraph. For these reasons, we do not

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sustain the examiner's rejection of claims 12 through 22 under 35 U.S.C. § 103 as unpatentable over Flood.

Considering now the rejection based on Styron, we emphasize that each appealed claim recites a pozzolanic composition comprising from 50% to 80% by weight of silica fume. Manifestly, the Styron reference is insufficient to support a conclusion of obviousness of claims containing that limitation. Styron discloses an admixture containing fly ash, cement and silica fume dust. The silica fume dust, however, is used in relatively small amounts, far less than "from 50% to 80% by weight" of the pozzolanic composition recited in the independent claims before us. Having reviewed the Styron reference in its entirety, including section c entitled "[T]he Filler Component" (column 8, line 42 through column 9, line 55) and EXAMPLES 1 through 5, we find that Styron does not disclose or suggest the relatively high concentrations of silica fume recited in the appealed claims.

The examiner acknowledges the difference between the amounts of silica fume recited in claims 12 through 22 and the amounts of silica fume dust disclosed by Styron. According to the examiner,

While concentration of silica fume in Styron may not be identical to the present invention, changes in temperature, concentrations, or other process conditions of an old process does [sic] not impart patentability unless the recited ranges are critical, i.e., they produce a new and unexpected result. In re Aller et al. (CCPA 1955) 220 F2d 454, 105 USPQ 233.

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See the Examiner's Answer, page 6, first full paragraph. However, while it may ordinarily be the case that the determination of optimum values for the parameters of a prior art process would have been prima facie obvious, that conclusion depends on what the prior art discloses with respect to those parameters. Where, as here, the prior art disclosure suggests the outer limits of the range of suitable values, and that the optimum resides within that range, the determination of optimum values outside that range may not be obvious. We think it is not on the facts of this case, where appellants' "50% to 80% by weight of silica fume" is well above the relatively small concentrations of silica fume dust disclosed by Styron. See In re Sebek, 465 F.2d 904, 907, 175 USPQ 93, 95 (CCPA 1972). For these reasons, we do not sustain the rejection of claims 12 through 22 under 35 U.S.C. § 103 as unpatentable over Styron.

The examiner's decision is reversed.

REVERSED

SHERMAN D. WINTERS)	
Administrative Patent Judge)	
)	
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WILLIAM F. SMITH)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
TERRY J. OWENS)	
Administrative Patent Judge)	

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