

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 13

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROGER E. NEFF, JOSEPH J. PELLON
and RODERICK G. RYLES

Appeal No. 95-3682
Application No. 08/028,916¹

ON BRIEF

Before WINTERS, OWENS and WEIMAR, Administrative Patent Judges.

WINTERS, Administrative Patent Judge.

DECISION ON APPEAL

¹ Application for patent filed March 8, 1993. According to applicants, this application is a continuation of Application No. 07/285,933, filed December 19, 1988, now abandoned.

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This appeal was taken from the examiner's decision rejecting claims 1 through 10, 46 and 48 through 57. Claim 58, which is the only other claim remaining in the application, stands withdrawn from further consideration by the examiner as directed to a non-elected invention.

Claim 1, which is illustrative of the subject matter on appeal, reads as follows:

1. An unsheared, water-soluble, branched, cationic, poly-meric flocculant having a molecular weight of over one million, a solution viscosity of at least about 1.8 mPa.s measured in a Brookfield viscometer with a UL adapter at 25EC on a 0.1 percent, by weight, polymer solution in 1M NaCl at 60 rpm, a solubility quotient of greater than about 30 percent and a branching agent content of from about 4 to about 80 molar parts per million based on initial monomer content, said flocculant being efficient when added as a true solution to dispersions of suspended solids for the purpose of releasing water therefrom.

The reference relied on by the examiner is:

Flesher et al. (Flesher)	4,720,346	Jan. 19, 1988
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The issue presented for review is whether the examiner erred in rejecting claims 1 through 10, 46 and 48 through 57 under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as unpatentable over Flesher.²

² In the Final Rejection mailed May 6, 1994 (Paper No. 9), the examiner also rejected claims 1 through 10, 46 and 48

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DISCUSSION

On consideration of the record, we reverse the examiner's prior art rejection of claims 1 through 10 and 46. Respecting claims 48 through 57, which improperly depend from canceled claims, we remand this application so that the examiner may take further, appropriate action.

Independent claim 1 requires that applicants' polymeric flocculant have

a solubility quotient of greater than about 30 percent and a branching agent content of from about 4 to about 80 molar parts per million based on initial monomer content, said flocculant being efficient when added as a true solution to dispersions of suspended solids for the purpose of releasing water therefrom.

In our judgment, Flesher constitutes insufficient evidence to support a finding of anticipation or a conclusion of obviousness of claims containing those limitations.

First, applicants make clear that adding a chain-transfer agent, in optimum concentration, is essential to the practice of their invention. According to applicants, adding an

through 57 under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as unpatentable over Japanese Patent 238,780. Apparently, that rejection has been withdrawn because it is not repeated or referred to in the Examiner's Answer.

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optimum concentration of chain-transfer agent during polymerization is necessary "to control the structure and solubility of the polymer" (specification, page 10, lines 1 and 2). The optimum concentration of chain-transfer agent can be determined by measuring the solubility quotient (specification, page 10, lines 24 through 26). As stated by applicants,

Use of a chain-transfer agent in concentrations such that the solubility quotient is less than 30 percent provides products that are not soluble. Only when optimum concentrations are used, effectuating a solubility quotient greater than 30 percent, do the polymers exhibit the required solubility characteristics. Thus, the soluble polymers of this invention all possess a minimum solubility quotient of over 30 percent, preferably over 40 percent and even more preferably over 50 percent. Many exhibit a solubility quotient of greater than 90 percent. [Specification, page 11, lines 4 through 14].

On this record, the examiner has not established that Flesher discloses or suggests a polymeric flocculant having "a solubility quotient of greater than about 30 percent." The examiner has not established that Flesher suggests using an optimum concentration of chain-transfer agent during polymerization, or using any other methodology, to achieve a solubility quotient of greater than about 30 percent. Simply stated, the examiner has not established that the prior art

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teachings would have led a person having ordinary skill from "here to there," i.e., from the polymeric flocculants of Flesher to the claimed polymeric flocculants having "a solubility quotient of greater than about 30 percent and a branching agent content of from about 4 to about 80 molar parts per million based on initial monomer content."

Second, as correctly argued by applicants, Flesher's polymer does not function as a flocculant unless the polymeric material is in the form of small particles rather than a true solution. This is the antithesis of the invention disclosed and claimed by applicants where the polymeric flocculant is "efficient when added as a true solution to dispersions of suspended solids for the purpose of releasing water therefrom." In other words, the claimed polymeric flocculants function in a state (true solution) where those of Flesher do not and cannot. See particularly the Flesher patent, column 3, line 58 through column 4, line 4. Again, in our judgment, Flesher constitutes insufficient evidence to support a finding of anticipation or a conclusion of obviousness of claims requiring that the polymeric flocculant be "efficient when

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added as a true solution to dispersions of suspended solids for the purpose of releasing water therefrom."

The prior art rejections of claims 1 through 10 and 46 are reversed.

We next invite attention to claims 48 through 57. Inspection reveals that each of these claims depends from a canceled claim. Manifestly, this is improper and it is unclear what the claims cover. Where, as here, it is unclear what subject matter the claims cover, we will not pass on the merits of the examiner's prior art rejections. The question of improper dependency has apparently been overlooked by both applicants and the examiner. Accordingly, we remand this application to the examiner to address this question and to take appropriate action.

In conclusion, the rejection of claims 1 through 10 and 46 under 35 U.S.C. § 102 as anticipated by or, in the alternative, under 35 U.S.C. § 103 as unpatentable over Flesher is reversed. Respecting claims 48 through 57, which improperly depend from canceled claims, we remand this application to the examiner to take appropriate action.

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This application, by virtue of its "special" status, requires an immediate action. Manual of Patent Examining Procedure § 708.01(d) (6th ed., Jan. 1995). It is important that the Board be informed promptly of any action affecting the appeal in this case.

REVERSED AND REMANDED

SHERMAN D. WINTERS)	
Administrative Patent Judge)	
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TERRY J. OWENS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
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ELIZABETH WEIMAR)	
Administrative Patent Judge)	

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