

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 32

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte CHRISTIAN MILLAUER

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Appeal No. 2002-0139  
Application No. 08/991,572

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ON BRIEF

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Before KRATZ, DELMENDO, and JEFFREY T. SMITH, Administrative Patent Judges.

KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 17-19. The remaining pending claims, namely claims 1-3, 5-10 and 14, have been indicated as allowable by the examiner.

BACKGROUND

Appellant's invention relates to an apparatus including an extruder constructed to be useful for changing the wetting agents of pigments. The extruder comprises, inter alia, a barrel having

a supply input and discharge output as well as lateral opening(s) therein to allow for the escape of a first agent, at least one screw with helical spaces between adjacent screw threads and having counter-threads located downstream of the lateral opening(s), means for rotating the screw, a metering device for introducing feed materials composed of solids and a first and a second agent thereto, and a controller for controlling the volume rates of the above-noted materials introduced via the metering device and for controlling the speed of rotation of the screw so as to fill only part of the helical spaces of the screw with the above-noted feed materials. A further understanding of the invention can be derived from a reading of claim 17, the sole independent claim on appeal, which is reproduced below.

17. An apparatus useful for changing the wetting agent of pigment solids from a first agent that is an aqueous phase to a second agent that is an oily phase, comprising  
    an extruder including:  
        an extruder barrel having a supply input and a discharge output,  
        at least one screw which has screw threads over its length, and  
        helical spaces between adjacent screw threads, said at least one screw being arranged within said extruder barrel;  
    at least one metering device for introducing said solids and said first and second agents into said extruder at predetermined volume rates;  
    means for rotating said at least one screw at a predetermined speed;

a controller for controlling said predetermined volume rates and said predetermined speed so as to fill only part of said helical spaces by said solids and said first and second agents to segregate said first agent; and

at least one lateral opening in said extruder barrel for said first agent to escape;

wherein a portion of said screw downstream of said at least one lateral opening has a sufficient number of counter-threads to cause said oily phase containing said pigment solids to jam.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

|                          |           |               |
|--------------------------|-----------|---------------|
| Higuchi et al. (Higuchi) | 4,474,473 | Oct. 02, 1984 |
| Wesley et al. (Wesley)   | 4,789,507 | Dec. 06, 1988 |

Claims 17-19 stand rejected under 35 U.S.C. § 103 as being unpatentable over Higuchi in view of Wesley.

We refer to the briefs and to the answer for the opposing viewpoints expressed by appellant and by the examiner concerning the above-noted rejection.

#### OPINION

Upon careful review of the entire record including the respective positions advanced by appellant and the examiner, we find ourselves in agreement with appellant that the examiner has failed to carry the burden of establishing a prima facie case of obviousness. See In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); In re Piasecki, 745 F.2d 1468, 1471-

1472, 223 USPQ 785, 787-788 (Fed. Cir. 1984). Accordingly, we will not sustain the examiner's rejection substantially for the reasons set forth by appellant in the briefs.

"It is well-established that before a conclusion of obviousness may be made based on a combination of references, there must have been a reason, suggestion or motivation to lead an inventor to combine those references." Pro-Mold and Tool Co. v. Great Lakes Plastics Inc., 75 F.3d 1568, 1573, 37 USPQ2d 1626, 1629 (Fed. Cir. 1996). Here, the examiner has not established any convincing reason, suggestion or motivation for combining the references as proposed.

The examiner's position appears to be that it would have been obvious to one of ordinary skill in the art to modify the apparatus of Higuchi by employing the controlling system of Wesley therein so as to allegedly arrive at appellant's claimed apparatus. See pages 3-5 of the answer for the examiner's complete statement of the rejection. However, the examiner has not carried the burden of fairly explaining how the teachings of Wesley are combinable with Higuchi. Wesley is concerned with an alleged improved melt spinning of friable and thermally sensitive preceramic particles of organosilicon via the use of a starve feeding technique for an extruder and a controller useful

therefor. Higuchi discloses pigment wet cake processing in an extrusion apparatus. The examiner has not established that one of ordinary skill in the art would have been led to modify the apparatus of Higuchi by employing the controller of Wesley therein for starve feeding with respect to the disparate extrusion apparatus of Higuchi so as to arrive at the claimed invention.

The examiner (answer, page 5) maintains that Wesley's teaching of preventing solid plugging via the use of the starve feeding controller is applicable to Higuchi's apparatus since Higuchi is also concerned with plugging at the feed section of the apparatus. However, that position of the examiner has not been adequately developed to establish the prima facie obviousness of such a modification. In this regard, we note that the plugging problem that is of concern to Higuchi (column 7, lines 53-60) related to dough formation when a second agent (organic liquid) was allowed to contact the pigment and first agent (water) at the feed port whereas the plugging problem addressed by Wesley (paragraph bridging columns 1 and 2) was the result of premature heating and cross linking of fine particles of organosilicon preceramic polymers. The examiner has not established that one of ordinary skill in the art would have

recognized that application of the starve feeding controller of Wesley to the extrusion apparatus of Higuchi would have been suggested by the disparate disclosures of those references and would have met with a reasonable expectation of success in addressing the significantly different problem discussed by Higuchi.

On this record, the examiner has not proffered satisfactory supporting evidence or a convincing rationale that specifically addresses how the applied references would have taught or suggested the herein claimed apparatus.

For the foregoing reasons, we find that the examiner has not established a prima facie case of obviousness. Accordingly, we will not sustain the § 103 rejection before us.

CONCLUSION

The decision of the examiner to reject claims 17-19 under 35 U.S.C. § 103 as being unpatentable over Higuchi in view of Wesley is reversed.

REVERSED

|                             |   |                 |
|-----------------------------|---|-----------------|
| PETER F. KRATZ              | ) |                 |
| Administrative Patent Judge | ) |                 |
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|                             | ) |                 |
|                             | ) |                 |
|                             | ) | BOARD OF PATENT |
| ROMULO H. DELMENDO          | ) | APPEALS         |
| Administrative Patent Judge | ) | AND             |
|                             | ) | INTERFERENCES   |
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| JEFFREY T. SMITH            | ) |                 |
| Administrative Patent Judge | ) |                 |

PFK/sld

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HARNESS, DICKY & PIERCE  
P.O. BOX 828  
BLOOMFIELD HILLS, MI 48303