

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

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JURGEN HIEDLAS, ZHENGFENG ZHANG,
KURT STORK, JOHANN WIESMULLER, MARTIN OBER,
and JOHANN OBERSTEINER

Appeal 2006-2610
Application 10/362,136
Technology Center 1700

Decided: September 12, 2006

Before KIMLIN, WARREN, and WALTZ, *Administrative Patent Judges*.
KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 19-52. Claim 19 is illustrative:

19. A method of impregnating a carrier matrix with at least one solid or liquid compound using compressed gas, comprising:

contacting the at least one impregnating material comprising at least one solid or liquid compound and the insoluble carrier matrix with a

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compressed gas at a gas density of at least 0.15 to 1.3 kg/l under at least two unsymmetrical pulsations in such a manner that, per individual pulsation of a duration of at least 5 s and no more than 60 min, the respective time period to achieve the pressure maximum is greater than the time period for pressure reduction to the minimum.

The Examiner relies upon the following references as evidence of obviousness:

Shine	US 5,766,637	Jun. 16, 1998
Redding	US 5,271,881	Dec. 21, 1993
Murthy	US 4,737,384	Apr. 12, 1988

Appellants' claimed invention is directed to a method for impregnating a carrier matrix with a solid or liquid compound using compressed gas. The compressed gas is applied under at least two unsymmetrical pulsations, i.e., the pressure is increased and then abruptly released at least twice. Each individual pulsation is of a duration of at least 5 seconds and no more than 60 minutes.

Appealed claims 19-52 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shine in view of either Redding or Murthy.

Appellants have not presented arguments for any particular claim on appeal. Accordingly, all the appealed claims stand or fall together with claim 19.

We have carefully reviewed each of Appellants' arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art.

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Accordingly, we will sustain the Examiner's rejection for the reasons set forth in the Answer, and we add the following primarily for emphasis.

Shine, like Appellants, discloses a method of impregnating a carrier matrix with a solid or liquid compound by utilizing compressed gas over a period of about two hours. The compressed gas then undergoes an abrupt release of pressure (col. 4, l. 8 and 9; col. 6, ll. 20 and 33-40). As recognized by the Examiner, Shine does not expressly teach the application of another pressure cycle after the abrupt release of pressure. However, we fully concur with the Examiner that it would have been *prima facie* obvious for one of ordinary skill in the art to modify the two-hour application of pressure disclosed by Shine into two consecutive one-hour sessions. As explained by the Examiner, it has generally been held that splitting one process step into two steps is a matter of obviousness for one of ordinary skill in the art when the processes are substantially the same in terms of function and result. Moreover, as noted by the Examiner, Shine refers to Redding which discloses numerous cycles of pressure changes to control the size of the microcapsule produced. Murthy also teaches that the thickness of a coating can be controlled by employing two or more pressure cycles (col. 5, ll. 28-30). Accordingly, based on the state of the prior art, we find no error in the Examiner's legal conclusion that the claimed method of impregnating a matrix with a solid or liquid compound by using unsymmetrical pulsations of pressurized gas would have been obvious to one of ordinary skill in the art.

Appellants maintain that "considerable advantages are obtained from the pulsed method of the present invention, as compared to a method with only a single cycle" (Br. 4, third paragraph). According to Appellants, another compression of the gas allows for initial air and impurities to be removed from the matrix and results in "a deeper penetration and thus provides access to a larger inner surface for the impregnation material (Br. 5, first paragraph). However, Appellants cite no experimental, comparative data to support their argument and have not established on this record that any improved results of processes within the scope of the appealed claims would have been considered truly unexpected by one of ordinary skill in the art. *In re Merck and Co.*, 800 F.2d 1091, 1099, 231 USPQ 375, 381 (Fed. Cir. 1986). The burden of showing unexpected results rests on the party asserting them. *In re Klosak*, 455 F.2d 1077, 1080, 173 USPQ 14, 16 (CCPA 1972).

Appellants also contend that "the cited references do not relate to a method for impregnating a carrier matrix, but rather a method for microencapsulating a core material" (Br. 7, last paragraph). However, the Examiner accurately points out that Shine expressly teaches that the term "microcapsule" encompasses a dispersion of core material in a polymer matrix, i.e., impregnation of the core material in the matrix (see col. 4, ll. 17-20). While Appellants maintain that "impregnation and encapsulation are two different processes with different objectives" (Br. 8, second paragraph), the cited portion of Shine evidences that encapsulation may

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include impregnation. Also, Appellants have not refuted the Examiner's finding that "the art does not recognize a distinction between coating and impregnating (*In re Marra et al.*, [329 F.2d 970, 972,] 141 USPQ 221 [, 223-24 (CCPA 1964)])" (Answer 9, second paragraph).

In conclusion, based on the foregoing and the reasons well-stated by the Examiner, the Examiner's decision rejecting the appealed claims is AFFIRMED.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED

clj

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