

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 39

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte BRUCE BISGROVE, RYSZARD BRAUN, ROBERT CHRISTENSEN, JR.,
ROBERT FEWKES, ALFRED L. GAERTNER, JOHN REYNOLDS, DAVID WIGHT and
ANTTI KOSOLA

Appeal No. 2003-0806
Application No. 09/219,275

HEARD: SEPTEMBER 10, 2003

Before COHEN, STAAB and BAHR, Administrative Patent Judges.
BAHR, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1, 4-6 and 15-28, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellants' invention relates to a spray gun with a plurality of single nozzles for a fluid bed processing system. Further understanding of appellants' invention may be obtained from a reading of independent claims 1 and 22, which are reproduced in the opinion section of this appeal.

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

Martin	3,390,648	Jul. 2, 1968
Melliger	4,407,844	Oct. 4, 1983
Imanidis et al. (Imanidis)	4,895,733	Jan. 23, 1990
Boos et al. (Boos)	5,693,362	Dec. 2, 1997

The following rejections are before us for review.

Claims 1, 4, 5, 15, 16, 18, 21-25 and 28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Imanidis in view of Martin and Melliger.

Claims 6, 17, 19, 20, 26 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Imanidis in view of Martin, Melliger and Boos.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejections, we make reference to the answer (Paper No. 33) for the examiner's complete reasoning in support of the rejections and to the brief (Paper No. 32) for the appellants' arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art references, and to the respective positions articulated by the appellants and the examiner. As a consequence of our review, we make the determinations which follow.

The two independent claims on appeal, claims 1 and 22, read as follows:

1. A fluid bed processing system for particles comprising:

an expansion chamber;

at least one spraying apparatus, at least a portion of the spraying apparatus extending into the expansion chamber; and

a plurality of single nozzles spaced along the portion of the spraying apparatus that extends into the expansion chamber;

wherein the portion of said spraying apparatus that extends into the expansion chamber is substantially straight, has an elongated wand-shape, and comprises

a plurality of fluid passages, wherein each of the single nozzles is connected to a different one of the fluid passages, and

at least one gas passage connected to each of the single nozzles.

22. A fluid bed processing system for particles comprising:

an expansion chamber;

at least one spraying apparatus having a spray housing that includes a main passage, at least a portion of

the housing that includes the main passage extending into the expansion chamber;

a plurality of single nozzles spaced along the portion of the housing which extends into the expansion chamber;

a plurality of fluid passages located within the main passage, wherein each of the single nozzles is connected to a different one of the fluid passages; and

at least one passage located within the main passage, wherein the at least one gas passage is connected to each of the single nozzles, and, in the portion of the housing that extends into the expansion chamber, the plurality of fluid passages and the gas passage are entirely located within the main passage.

Imanidis, the jumping off point in the examiner's determination of obviousness, discloses a fluidized bed system for coating a first particulate material of first larger particles with a coating material of second smaller particles. The system comprises a vessel 1 including a processing space 31, a rotor disc 23 and gas supply (note gas supply conduit 51, gas heater 57 and gas exhaust conduit 61) for moving first larger particles within the processing space, an inlet member 33 disposed slightly above the rotor disc for introducing dry particulate material (the coating material of second smaller particles) and comprising a ring with a channel and with nozzles distributed over the periphery of cylindrical shell 7 and opening into the processing space 31 and a spraying device 35 for spraying a liquid into the processing space and comprising at least one spraying member which in turn comprises at least one nozzle and, for example, several nozzles distributed around the vertical central axis of the vessel 1. The spraying device 35 supplies a liquid, such as water or a bonding medium, if necessary, to assist in

bonding the smaller particles to the first particulate material (see column 4, lines 26-53). The first particulate material is placed on the rotor disc 23 and particles thereof are entrained in the air stream flowing through gas supply and exhaust conduits 51 and 61 and are whirled around the vessel by rotation of the rotor disc into the processing space 31, where they are sprayed with liquid from spraying device 35 and contacted with a second dry particulate material input through inlet 33. The coated particles are dried by their movement within the processing space by the rotation of the rotor disc and by the air passed through the vessel.

The examiner concedes that Imanidis fails to disclose a plurality of fluid passages, wherein each of the single nozzles is connected to a different one of the fluid passages and at least one gas passage connected to each of the single nozzles, as called for in claims 1 and 22. The examiner also concedes that Imanidis fails to disclose a housing surrounding the fluid passages and the gas passage in the portion of the housing that extends into the expansion chamber (i.e., the processing space 31 of Imanidis), as recited in claim 22.

Martin discloses a rotating drum 1 rotated on rollers 2 by an electromotor 5 for coating particles. The particulate material to be coated, which may be, for example, bi-convex tablets, is supplied into grooves 7 on the inside of the drum by a tablet feeding device 24. Several sprayers or nozzles 14 are arranged along the interior of the drum. As illustrated in Figures 1 and 2, these sprayers are connected to a common compressed air duct 15 and to individual solution supply ducts 16 fed from a container

17 or from several such containers. The container 17 is put under pressure by a compressed air duct 18. The tablet batches 9 move from one end of the drum to the other through the drum's rotation and the force of gravity, with each batch being contained in a lower section of the helical groove 7 and being exposed to the spray from nozzles 14. The coated particles dry almost immediately with the aid of hot air blown on them from a duct 21. As explained in column 4, lines 55-64 of Martin, the use of mixing jets (i.e., jets which mix compressed air with the coating solution) offers the advantage that the air streaming in with particles of solution at the same time removes any dust which may be adhering to the tablets, so that no foreign substances can penetrate the film.

Melliger discloses a coating apparatus for coating solid pharmaceutical dosage forms such as tablets using a coating pan and a motor for rotating the pan. As illustrated in Figures 1 and 2, several nozzles 66 are arranged within the pan to deliver a variety of different coating substances, such as talc syrup, color dispersion and polishing wax. These various substances are delivered to the pan via a plurality of conduits which are covered by a housing 30 inside the coating pan, with the ends of the conduits protruding from the housing 30 into the pan. Additionally, a hot air supply is delivered to the housing 30 via conduit 48. The coating substances are delivered from the conduits to the pan through nozzles 66 and the hot air passes out of the housing via vents 55. A preferred form of the nozzles is illustrated in Figure 4 and includes a fluid outlet port surrounded by an air chamber 68 to which air is supplied via an air inlet port

69. Coating fluids are pumped into the port 67 via conduits 29, 31 while, simultaneously, air under pressure from the air inlet port 69 enters the air chamber 68. The air and/or liquid pressure forces open a normally closed aperture 82, allowing air and coating fluids to enter the pan 11 as an atomized spray. According to Melliger, the spray nozzle 66 may also be operated without air pressure from the air inlet port 69, in which case the coating fluids enter the pan 11 as a stream and are poured on the tablets (column 5, lines 60-63).

In rejecting appellants' claims, the examiner has determined that it would have been "an obvious matter of design choice to substitute the spraying apparatus of Imanidis et al. with the spraying apparatus taught by Martin, since such a modification would have involved a mere substitution of known equivalent structures" and, further, that it would have been obvious to provide a housing around the spraying apparatus "in order to prevent deposits on the spray device and increase ease of cleaning the apparatus" (answer, page 4). First, we note that the examiner has not supplied any evidence¹ that the mixing jet sprayer apparatus of Martin is recognized as an equivalent² to the sprayer 35 of Imanidis. In fact, it appears from the disclosures of

¹ Rejections based on 35 U.S.C. § 103 must rest on a factual basis. In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968).

² An examiner's reliance on equivalents as a rationale supporting an obviousness rejection is inappropriate without evidence that the equivalency was recognized in the prior art. See In re Ruff, 256 F.2d 590, 598, 118 USPQ 340, 347 (CCPA 1958).

both Martin and Melliger, with regard to the use of mixing jet type nozzles wherein compressed air is mixed with the coating material, that mixing jet type nozzles were recognized in the art at the time of appellants' invention as being different from the type of sprayer 35 of Imanidis. For example, as pointed out by Martin, one advantage of using a mixing jet type sprayer is that the air mixed with the particles of solution help remove foreign particles or dust which may be on the particles to be coated. Inasmuch as the gas supply which entrains and fluidizes the particles to be coated in Imanidis' apparatus would seem to achieve such dust removal, the use of a more complicated mixing jet type sprayer in place of the sprayer 35 of Imanidis would appear to be unnecessary.

As stated by our reviewing court in In re Kotzab, 217 F.3d 1365, 1369-70, 55 USPQ2d 1313, 1316 (Fed. Cir. 2000):

Most if not all inventions arise from a combination of old elements. Thus, every element of a claimed invention may often be found in the prior art. However, identification in the prior art of each individual part claimed is insufficient to defeat patentability of the whole claimed invention. Rather, to establish obviousness based on a combination of the elements disclosed in the prior art, there must be some motivation, suggestion or teaching of the desirability of making the specific combination that was made by the applicant [citations omitted].

In this instance, the examiner has not offered any explanation, and it is not apparent to us from the combined teachings of Imanidis, Martin and Melliger, why it would have been obvious to one of ordinary skill in the art to replace the sprayer 35 of Imanidis with the spraying apparatus of Martin.

Further, the examiner's stated motivation for providing a housing around the spraying apparatus appears to be based on speculation or unfounded assumption, as we find no support in any of the applied references that deposits on the sprayer 35 are a problem with the fluidized bed apparatus of Imanidis, wherein the particles to be coated remain below the sprayer 35 (see column 8, lines 3-8 of Imanidis). Moreover, even assuming that it would have been obvious to provide a housing of the type disclosed by Melliger around the sprayer 35 of Imanidis, the invention recited in appellants' claim 1 would not result, as Melliger's housing (see Figure 3 of Melliger) does not have "an elongated wand-shape" and thus would not impart such a shape to the sprayer, as called for in claim 1.

Simply stated, from our perspective, the only suggestion for putting the selected pieces from the references together in the manner proposed by the examiner is found in the luxury of hindsight accorded one who first viewed the appellants' disclosure. This, of course, is not a proper basis for a rejection. See In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). We thus shall not sustain the examiner's rejection of independent claims 1 and 22 or claims 4, 5, 15, 16, 18, 21, 23-25 and 28 depending therefrom.

Boos, relied upon by the examiner for its teaching of a rotor disc and screen as alternatives in a fluidized bed processing system (see column 8, lines 55-56), provides no cure for the above-mentioned deficiency in the combination of Imanidis, Martin and Melliger with reference to claims 1 and 22. Thus, we shall also not sustain the rejection

of claims 6, 17, 19, 20, 26 and 27, which depend from claims 1 and 22, as being unpatentable over Imanidis in view of Martin, Melliger and Boos.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 4-6 and 15-28 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN
Administrative Patent Judge

LAWRENCE J. STAAB
Administrative Patent Judge

JENNIFER D. BAHR
Administrative Patent Judge

)
)
)
)
)
) BOARD OF PATENT
) APPEALS
) AND
) INTERFERENCES
)
)
)
)

Appeal No. 2003-0806
Application No. 09/219,275

Page 12

LEONARD D. BOWERSOX
KILYK & BOWERSOX
3603-E CHAIN BRIDGE ROAD
FAIRFAX, VA 22030