

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 26

**UNITED STATES PATENT AND TRADEMARK OFFICE**

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

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Ex parte JORG-CHRISTIAN HAGER,  
JOSEF-PETER LOHR and MANFRED BUHR

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Appeal No. 2001-1265  
Application No. 08/612,074

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ON BRIEF

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Before WINTERS, MILLS and GRIMES, Administrative Patent Judges,

MILLS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal under 35 U.S.C. § 134 from the examiner's final rejection of claims 25-36 which are the claims on appeal in this application.

Claim 25 is representative of the claims on appeal and reads as follows:



Appeal No. 2001-1265  
Application No. 08/612,074

Examiner's Answer for the examiner's complete reasoning in support of the rejection, and to the appellants' Brief for the appellants' arguments thereagainst. As a consequence of our review, we make the determinations which follow.

35 U.S.C. § 103

Claims 25-36 stand rejected under 35 U.S.C. § 103(a) as obvious over Weder 1, Weder 2 or Lichtenberg, by themselves or in combination.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established when the teachings from the prior art itself would appear to have suggested the claimed subject matter to a person of ordinary skill in the art. In re Bell, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993). An obviousness analysis requires that the prior art both suggest the claimed subject matter and reveals a reasonable expectation of success to one reasonably skilled in the art. In re Vaeck, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991).

It is the examiner's position that (Answer, page 4):

Weder discloses a liposome system containing phospholipid and a bile salt, sodium cholate (note the abstract, columns 3-10 and example 1). Although the ratios of phospholipid to bile salts taught by Weder are different from the instant ratios, it is deemed obvious to an artisan to

Appeal No. 2001-1265  
Application No. 08/612,074

manipulate the basic teachings of Weder with the expectation of obtaining at least similar results.

We do not find that the examiner has presented sufficient evidence to support a prima facie case of obviousness. The examiner admits that the ratios of phospholipid to bile salts taught by Weder 1 are different from the claimed ratios, but deems it obvious to an artisan to manipulate the basic teachings of Weder 1 with the expectation of obtaining at least similar results, apparently relying on the general knowledge in the art to negate patentability of the claimed invention.

Patent examiners, in relying on what they assert to be general knowledge to negate patentability on the ground of obviousness, must articulate that knowledge and place it of record, since examiners are presumed to act from the viewpoint of a person of ordinary skill in the art in finding relevant facts, assessing the significance of prior art, and making the ultimate determination of the obviousness issue. Failure to do so is not consistent with either effective administrative procedure or effective judicial review; examiners cannot rely on conclusory statements when dealing with particular combinations of prior art and specific claims, but must set forth the rationale on which they rely. See In re Lee, 277 F.3d 1338, 1343-1344, 61 USPQ2d 1430, 1433-1434 (Fed. Cir. 2002). Thus, it is improper to rely on the “common knowledge and common sense” of a person of ordinary skill in art to find an invention obvious over a combination of prior art references, since the factual question of motivation to select and combine references is material to patentability, and cannot be resolved on

Appeal No. 2001-1265  
Application No. 08/612,074

subjective belief and unknown authority. In re Lee, 277 F.3d 1338, 1343-1344, 61 USPQ2d 1430, 1433-1434 (Fed. Cir. 2002).

We agree with the examiner that the Weder 1 patent describes liposomes comprising the two claimed ingredients, a phospholipid, such as phosphatidylcholine (column 8, line 39) and cholic acid and salts and derivatives thereof (column 9, lines 6-9; and Table, columns 11-12). Weder 1 also describes liposomes having sizes within the claimed range, see for example, column 12. However, Weder 1 does not speak in terms of mass ratios, but provides guidelines for determining the amount of each component in an associate solution, in particular 1 to 150 mg/ml bilayer-forming substance and 1 to 200 mg/ml of solubilizing agent. Column 4, lines 42-51. Weder 1 indicates at column 4, lines 50-51, that the “molar ratio of the bilayer-forming substance to solubilizing agent is suitably about 0.1 to 2.” This ratio would appear to be above the claimed ratio range. See, e.g., Brief, page 6, which discusses conversion of molar ratios to mass ratios.

Appellants state in the Brief at page 5, that the amounts disclosed in Weder 1 “would apparently give a mass ratio in the range of 1:200 to 1:0.0066, thereby presumably encompassing the instantly claimed mass ratio.” Appellants argue, however, that Weder 1 “refers to the amount of phospholipid and bile acid in the

Appeal No. 2001-1265  
Application No. 08/612,074

associate solution, not the liposome system per se.” Brief, page 5. Appellants argue that in order to form the liposome according to Weder 1, the solubilizing agent is removed from associate solutions. Id. Thus, appellants argue that Weder 1 “does not teach or suggest the range of the mass ratios of phospholipid to non-phospholipidic substance or the range of liposome diameters claimed in the present invention.” Brief, page 6.

In view of the above, we find the examiner has failed to present sufficient evidence of knowledge in the art of the claimed mass ratio of phospholipid to non-phospholipidic substance to support a prima facie case of obviousness. The examiner has not come to grips with Appellants' argument that Weder 1 does not suggest the specific limitations of the claims. Nor has the examiner adequately explained how Weder 1 would have suggested making liposomes, in the recited size range of 35 to 90 nm, using a solution containing phospholipids and a cholic acid derivative in the recited mass ratio of 1:0.001 to 1:0.1.

With respect to Weder 2, Appellants argue that the mass ratio is “significantly above the range being claimed in the present invention. Brief, page 6. Regarding Lichtenberg, Appellants argue that Lichtenberg does not disclose liposomes having the claimed diameter and discloses a mass ratio “significantly below the lower limiting mass ratio value”. Brief, page 8. These arguments remain unrebutted by the examiner.

After evidence or argument is submitted by the applicant in response to an

Appeal No. 2001-1265  
Application No. 08/612,074

obviousness rejection, "patentability is determined on the totality of the record, by a preponderance of evidence with due consideration to persuasiveness of the argument." In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992); see In re Piasecki, 745 F.2d 1468, 1471-72, 223 USPQ 785, 787 (Fed. Cir. 1984) ("All evidence on the question of obviousness must be considered, both that supporting and that rebutting the prima facie case."). On balance, we believe that the totality of the evidence presented by the examiner and appellants weighs in favor of finding the claimed invention non-obvious over Weder 1, Weder 2 and/or Lichtenberg, by themselves or in combination. These rejections are reversed.

#### CONCLUSION

The rejections of claims 25-36 under 35 U.S.C. § 103(a) as obvious over Weder 1, Weder 2 and/or Lichtenberg, by themselves or in combination, are reversed.

Appeal No. 2001-1265  
Application No. 08/612,074

No time period for taking any subsequent action in connection with this appeal  
may be extended under 37 CFR § 1.136(a).

REVERSED

SHERMAN D. WINTERS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
DEMETRA J. MILLS	)	
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
ERIC GRIMES	)	
Administrative Patent Judge	)	

DJM/dym

MELTZER LIPPE GOLDSTEIN

Appeal No. 2001-1265  
Application No. 08/612,074

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