

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.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. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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

Ex parte JOHN V. BOUYOUCOS

Appeal No. 2002-2194
Application No. 09/594,532

ON BRIEF

Before ABRAMS, FRANKFORT, and NASE, Administrative Patent Judges.
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1 to 9, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to a towed acoustic source array of marine sources such as vibrator sources and is especially suitable for use as a towed geophysical array for underwater geophysical exploration applications (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellant's brief.

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

Lefebvre	3,469,551	Sept. 30, 1969
Spink et al. (Spink)	3,560,912	Feb. 2, 1971
Chaverebiere de Sal et al. (Chaverebiere de Sal)	3,987,745	Oct. 26, 1976
Bjerkoy	5,157,636	Oct. 20, 1992
Elholm	5,532,975	July 2, 1996
Deplante et al. (Deplante)	5,784,335	July 21, 1998

Claims 1, 4 and 5 stand rejected under 35 U.S.C. § 103 as being unpatentable over Spink in view of Elholm and Lefebvre.

Claim 2 stands rejected under 35 U.S.C. § 103 as being unpatentable over Spink in view of Elholm and Lefebvre and Deplante.

Claim 3 stands rejected under 35 U.S.C. § 103 as being unpatentable over Spink in view of Elholm and Lefebvre and Bjerkoy.

Claims 6 and 7 stand rejected under 35 U.S.C. § 103 as being unpatentable over Spink in view of Elholm and Lefebvre and Chaverebiere de Sal.

Claims 8 and 9 stand rejected under 35 U.S.C. § 103 as being unpatentable over Spink in view of Lefebvre and Chaverebiere de Sal.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the first Office action (Paper No. 3, mailed June 4, 2001) and the answer (Paper No. 12, mailed April 10, 2002) for the examiner's complete reasoning in support of the rejections, and to the brief (Paper No. 11, filed March 25, 2002) for the appellant's arguments thereagainst.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellant's specification and claims, to the applied prior art references, and to the respective positions articulated by the appellant and the examiner. Upon evaluation of

all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 1 to 9 under 35 U.S.C. § 103. Our reasoning for this determination follows.

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 by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

All the claims under appeal recite a towed array system comprising, inter alia, a plurality of tow bodies having positive buoyancy. In all the rejections before us in this appeal the examiner ascertained that the towed vehicle system of Spink lacked both positive buoyancy and a plurality of tow bodies. The examiner then concluded that it would have been obvious to one of ordinary skill in the art at the time of the invention to have modified (1) the towed vehicle of Spink to have positive buoyancy based upon the positive buoyancy of Lefebvre's tow buoy and (2) the towed vehicle system of Spink to

include a plurality of tow bodies based upon Lefebvre's teaching of a plurality of tow buoys.

The appellant argues that the applied prior art does not suggest the claimed subject matter. We agree. Specifically, it is our opinion that there is no suggestion in any of the applied prior art for a person of ordinary skill in the art at the time the invention was made to have modified the towed vehicle of Spink to have positive buoyancy. In that regard, while Lefebvre's tow buoys do have positive buoyancy, Lefebvre does not teach or suggest using or making a towed underwater vehicle, such as taught by Spink, positive buoyant since a buoy is designed to float on the surface of the water and an underwater vehicle is designed to be beneath the surface of the water.¹ Thus, it is our view that the only suggestion for modifying Spink in the manner proposed by the examiner to meet the above-noted limitations stems from hindsight knowledge derived from the appellant's own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984).

¹ U.S. Patent No. 3,434,446 to Cole and U.S. Patent No. 4,197,491 to Hagemann both appear to teach a positively buoyant towed underwater vehicle. See column 3, lines 1-3, of Cole and column 3, lines 10-21, of Hagemann.

For the reasons set forth above, the decision of the examiner to reject claims 1 to 9 under 35 U.S.C. § 103 is reversed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1 to 9 under 35 U.S.C. § 103 is reversed.

REVERSED

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
CHARLES E. FRANKFORT)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JEFFREY V. NASE)	
Administrative Patent Judge)	

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