THIS OPINION WAS NOT WRITTEN FOR PUBLICATION

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(2) is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte BERT B. MILES
and GARY W. SAMS

Appeal No. 96-0172
Application 08/076,000[1]

ON BRIEF

Before WARREN, WALTZ and SPIEGEL, *Administrative Patent Judges.*

WARREN, *Administrative Patent Judge.*

Decision on Appeal and Opinion

This is an appeal under 35 U.S.C. § 134 from the decision of the examiner finally rejecting claims 12 through 14, 16 and 17.[2]

We have carefully considered the record before us, and based thereon, find that we cannot sustain any of the grounds of rejection of the appealed claims under 35 U.S.C. § 103, each of which is

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[1] Application for patent filed June 11, 1993. According to appellants, this application is a division of application 07/604,925, filed October 29, 1990, now United States Patent 5,221,523, issued June 22, 1993.

[2] Amendment of April 4, 1994 (Paper No. 5).

essentially based on the combined teachings of Foral, Pobst and Seebold[3] (answer, 3-8). It is well settled that the examiner may satisfy his burden of establishing a *prima facie* case of obviousness under § 103 by showing some objective teachings or suggestions in the prior art taken as a whole or that knowledge generally available to one of ordinary skill in the art would have led that person to combine the relevant teachings of the applied prior art in the proposed manner to arrive at the claimed invention, including each and every limitation of the claims, without recourse to the teachings in appellant's disclosure. *See generally In re Oetiker*, 977 F.2d 1443, 1447-48, 24 USPQ2d 1443, 1446-47 (Fed. Cir. 1992) (Nies, J., concurring); *In re Fine*, 837 F.2d 1071, 1074-76, 5 USPQ2d 1596, 1598-1600 (Fed. Cir. 1988); *In re Dow Chem. Co.*, 837 F.2d 469, 473, 5 USPQ2d 1529, 1531-32 (Fed. Cir. 1988). In the appeal before us, the examiner has failed to carry his burden.

We disagree with the examiner that one of ordinary skill in this art would have modified the process of Foral in view of the teachings of Pobst and Seebold and thus arrived at the claimed invention[4] for the two reasons identified by the examiner as the differences between the claimed invention and Foral (answer, page 4). First, we construe steps (a) through (c) of the claimed method encompassed by claim 17 to require "*heating* the vaporized mixture" from the "regenerator" prior to "conducting said vaporized mixture . . . to a liquid collection chamber" (emphasis supplied). In contrary manner, Foral *cools* the vapors from the reboiler still in "conventional condenser **48**" and collects the resulting condensed material in "conventional liquid knock-out **52**" (e.g., col. 4, lines 68-72, col. 5, lines 59-61, col. 5, line 66, to col. 6, line 23). The examiner has proposed that Pobst would have provided the motivation to one of

[3] The references relied on by the examiner with respect to the grounds of rejection are listed at page 2 of the answer. We refer to these references in our opinion by the name associated therewith by the examiner.

[4] We find that the portion of Foral's apparatus, as seen from Foral Fig. 1 and cols. 3-7, which pertains to the steps of claim 17, extends from still column **10** through conduit **46** to condenser **48**, thence to the knock out vessel **52**, from which conduit **55** extends to jet ejector **56**, and thence from jet ejector **56,** with the addition of fuel gas, through conduit **60** to burner **28** located in the reboiler. We observe that appellants refer to the "reboiler" as the "reboiler," the "reboiler still column" and the "regenerator" (specification, e.g., page 5, line 4, and specification Fig. 2, numeral **40**).

ordinary skill in this art to modify the process of Foral by "heating the wet gaseous mixture in a heater, after conducting said mixture from the regenerator and before conducting it to the knockout vessel" (answer, page 4). However, as pointed out by appellants, Pobst does not address the combustion of gases as in Foral's apparatus and method (principal brief, pages 7-8), and we find no suggestion in Pobst to replace a condensation system as found in Foral with a heated system as claimed by appellants.

Second, we fail to find in the record, any reason why one of ordinary skill in this art would have modified the teachings of Foral as proposed by the examiner, in relying on the combined teachings of the applied references for the "concept of flaring Foral's combustible gas mixture in a flare rather than burning it to provide boiler duty for Foral's reboiler 26 (fig. 2)" (answer, page 13; see also page 5). As pointed out by appellants, such a modification "to achieve [appellants'] invention would . . . require a redesign of Foral" (reply brief, page 3) and is not suggested by the applied references. Indeed, such a modification would have to provide a different source of fuel for the burner of Foral's reboiler as well as provide for a different manner of disposing of the waste vapors. The examiner has provided no reason why one of ordinary skill in this art would have found the motivation in Seebold or in Pobst to make the proposed modifications of Foral.

It is well settled that the "mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." *In re Fritch*, 972 F.2d 1260, 1266**,** 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). Without such a suggestion in the prior art, the examiner has engaged in hindsight in concluding that the claimed invention is obvious over the combination of references. *Id*. Because Foral, Pobst and Seebold do not separately or severally provide the motivation to modify the apparatus of Foral to arrive at the claimed method, it is manifest that the only direction to appellants' claimed invention as a whole on the record before us is supplied by appellants' own specification.

The examiner's decision is reversed.

Reversed

CHARLES F. WARREN Administrative Patent Judge	)))))	
THOMAS A. WALTZ Administrative Patent Judge	)))	BOARD OF PATENT APPEALS AND INTERFERENCES
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