

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. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte NORBERT ALAZE

Appeal No. 2003-0400
Application No. 09/272,772

HEARD: May 7, 2003

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

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-14, 16-18 and 21-23, which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellant's invention relates to a piston pump for a brake system. An understanding of the invention can be derived from a reading of exemplary claim 1, which appears 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:

Schmidt <u>et al.</u> ¹ (Schmidt)	WO 97/43152	Nov. 20, 1997
Volz <u>et al.</u> ² (Volz)(Offenlegungsschrift)	4102364	Jul. 30, 1992

Claims 1-14, 16-18 and 21-23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schmidt in view of Volz.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejection, we make reference to the Answer (Paper No. 23) for the examiner's complete reasoning in support of the rejection, and to the Brief (Paper No. 22) and Reply Brief (Paper No. 25) for the appellant's arguments thereagainst.

¹Our understanding of this German language reference was obtained from Schmidt et al. U.S. Patent No. 6,079,796, filed Jun. 27, 2000, which was made of record by the examiner.

²Our understanding of this German language reference was obtained from a PTO translation, a copy of which is enclosed.

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. As a consequence of our review, we make the determinations which follow.

The appellant's invention is directed to a slip-controlled vehicle brake system with a piston pump that acts upon first and second pressure chambers, one of which is connected to a brake cylinder of a front brake of the vehicle and the other of which is connected to a brake cylinder of a rear wheel of the vehicle. It is the examiner's view that all of the subject matter recited in independent claim 1 is disclosed by Schmidt, except for the specific structure of the piston pump. The examiner takes the position that it would have been obvious to modify the Schmidt system by replacing the two pumps described and shown in the system with a single pump of the type disclosed by Volz because "it would have reduced the cost of the brake system through reduction of parts" and "would have reduced pressure pulsations" (Answer, page 4). The appellant argues that no suggestion is provided by either reference to modify the Schmidt system in the manner proposed by the examiner.

The test for obviousness is what the combined teachings of the prior art would have suggested to one of ordinary skill in the art. See, for example, In re Keller, 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). In establishing a prima facie case of

obviousness, it is incumbent upon the examiner to provide a reason why one of ordinary skill in the art would have been led to modify a prior art reference or to combine reference teachings to arrive at the claimed invention. See Ex parte Clapp, 227 USPQ 972, 973 (Bd. Pat. App. & Int. 1985). To this end, the requisite motivation must stem from some teaching, suggestion or inference in the prior art as a whole or from the knowledge generally available to one of ordinary skill in the art and not from the appellant's disclosure. See, for example, Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1052, 5 USPQ2d 1434, 1439 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988).

Schmidt discloses a vehicle anti-lock braking arrangement which comprises two systems like that shown in Figure 1, with each system connected between diagonally oriented front and rear brakes (column 3, lines 1-9). The system shown in Figure 1 utilizes a pair of return feed pumps 28 and 30, with pump 28 operating in the braking circuit to brake 16 of the right rear wheel and pump 30 on the braking circuit to brake 18 of the left front wheel (column 3, lines 14-21). Schmidt states that “[t]he two pumps of a brake circuit may for instance be embodied like the pumps is [sic] disclosed in U.S. Patent No. 4,875,741 . . . or by a stepped piston pump, known per se” (column 1, lines 41-46). The examiner interprets this statement to mean that the two pumps disclosed in each brake circuit can, alternatively, be replaced by a single stepped piston pump (Answer, sentence bridging pages 3 and 4), and then utilizes this conclusion as

suggestion to one of ordinary skill in the art to replace the two pumps with a single pump of the type disclosed by Volz. We do not agree with this analysis.

From our perspective, it is not clear from Schmidt that one of ordinary skill in the art would have been instructed by the above-quoted language to replace the two pumps, each connected to the braking circuit of diagonal front and rear brakes, with a single stepped piston pump with one of its chambers connected to a front brake circuit and the other to a diagonal rear brake circuit. In fact, we are of the opinion that Volz supports the interpretation advanced by the appellant, that is, that each of the two return feed pumps disclosed in the cited '741 patent be replaced by a stepped piston pump. The stepped pump shown in Figure 5 of Volz, upon which the examiner has relied, both of the pumping chambers (60 and 60a) are connected through one-way valves (62) to pump to a single outlet (unnumbered). As is explained on pages 16 and 17 of the Volz translation, an advantage of a double-acting pump is that it results in a "relatively small pulsation in the pressure [outlet] coupling, because the quantity of pressurizing agent conveyed per working cycle is subdivided into two conveying strokes" (translation, page 2). One of ordinary skill in the art thus would be taught by Volz that each of the Schmidt pumps be replaced by a double-acting (stepped) pump, in order to smooth the pulsations that result from a single-acting pump, rather than each be used to replace two existing pumps.

The mere fact that the prior art structure could be modified does not make such a modification obvious unless the prior art suggests the desirability of doing so. See In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). For the above reasons, we fail to perceive any teaching, suggestion or incentive in either reference which would have led one of ordinary skill in the art to modify the Schmidt braking system in the manner proposed by the examiner. It appears to us that suggestion for doing so is found only in the hindsight afforded one who first viewed the appellants' disclosure. This, of course, is not a proper basis for a rejection under Section 103. In re Fritch, 972 F.2d 1260, 1264, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). Thus, applying the guidance of our reviewing court to the situation at hand leads us to conclude that the teachings of the applied references fail to establish a prima facie case of obviousness with regard to the subject matter recited in independent claim 1, and we therefore will not sustain the rejection of claim 1 or, it follows, of claims 2-14, 16-18 and 21-23, which depend therefrom.

CONCLUSION

The rejection is not sustained.

The decision of the examiner is reversed.

REVERSED

NEAL E. ABRAMS)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
JOHN P. McQUADE)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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JEFFREY V. NASE)	
Administrative Patent Judge)	

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