

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 22

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JOHN E. NOHREN, JR., HENRY C. REID, JOSEPH H. NOHREN,
JOHN T. SMITH and DONALD G. HUGGINS, JR.

Appeal No. 2000-0895
Application No. 08/754,797

ON BRIEF

Before COHEN, ABRAMS and GONZALES, Administrative Patent
Judges

GONZALES, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 22 through 32 and 34 through 42, which are all of the claims in the application.

We REVERSE.

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The subject matter on appeal is directed to a filter assembly mounted in a bottle (claims 22 through 27, 38, 40 and 42) and to a filter assembly per se (claims 28 through 32 and 34 through 37, 39 and 41). Claims 22, 28 and 42, the only independent claims, are illustrative of the subject matter on appeal and are reproduced in the "Appendix" attached to the main brief.

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

Parker 1900	647,580	Apr. 17,
Knight 1967	3,335,917	Aug. 15,
VanderBilt et al. 1988 (VanderBilt)	4,753,728	Jun. 28,
Magnusson et al. 1993 (Magnusson)	5,273,649	Dec. 28,

Claims 22 through 32 and 34 through 42 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Magnusson in view of either Parker or Knight and further in view of VanderBilt.

The full text of the examiner's rejection and the

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response to the arguments presented by the appellants appear in the answer (Paper No. 19, mailed August 30, 1999), while the complete statement of the appellants' arguments can be found in the main and reply briefs (Paper Nos. 18 and 20, filed May 3, 1999 and September 9, 1999, respectively).

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 conclude that the rejection cannot be sustained.

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 the reference teachings would appear to be sufficient for one of ordinary skill in the relevant art having the references before him to make the proposed combination or other

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modification. See In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). Furthermore, the conclusion that the claimed subject matter is *prima facie* obvious must be supported by evidence, as shown by some objective teaching in the prior art or by knowledge generally available to one of ordinary skill in the art that would have led that

individual 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). Rejections based on

§ 103 must rest on a factual basis with these facts being interpreted without hindsight reconstruction of the invention from the prior art. The examiner may not, because of doubt that the invention is patentable, resort to speculation, unfounded assumption or hindsight reconstruction to supply deficiencies in the factual basis for the rejection. See In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). Our reviewing court has

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repeatedly cautioned against employing hindsight by using the appellant's disclosure as a blueprint to reconstruct the claimed invention from the isolated teachings of the prior art. See, e.g., Grain Processing Corp. v. American Maize-Products Co., 840 F.2d 902, 907, 5 USPQ2d 1788, 1792 (Fed. Cir. 1988).

Each of the independent claims calls for, *inter alia*, an element or tube of filtering material having an axis, a liquid porous side wall and a "porosity"¹ of about 10-120 microns; a cap for closing a bottle neck having first and second substantially opposite surfaces; a manual valve connected to or cooperatively associated with the cap; and the filter element or tube operatively engaging the cap second surface. Each of the independent claims also requires that the flow of liquid through the element or tube be primarily radial with respect to the element or tube axis during filtering.

¹ In construing the appealed claims, it is our understanding that the term "porosity" actually refers to pore size, since "porosity" is typically defined as the ratio of pore volume to bulk volume and is not stated in units of length. See, e.g., Van Vlack, Elements of Material Science 381(1964) (copy attached). The appellants' erroneous use of the term "porosity," rather than pore size, is worthy of correction upon return of the application to the jurisdiction of the examiner.

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The examiner describes Figure 7 of Magnusson as disclosing a plastic water bottle having a tubular filter cartridge 238 extending from a cap 234, the cap having a valve assembly 230 and a recess 236 in which the cartridge 238 is secured by snap ring 240 and O-ring 241 (answer, page 3). The examiner acknowledges that Magnusson does not teach a tube of filtering material or the filtering material having liquid porous side walls (id. at 4). To remedy this deficiency in Magnusson, the examiner cites Parker and Knight for their disclosure of a filter cartridge comprising a tube of filtering material having a liquid porous side wall, the flow of liquid through each element being radial with respect to the tube axis during filtering (id.). The examiner then

concludes that "[i]t would therefore have been obvious to substitute the filter cartridge of either Parker or Knight in the device of Magnusson to provide for the filtration of suspended particles/gross particulates as taught by lines 42-46 of column 8 of Magnusson" (id.). We note that column 8, lines 42-46 of Magnusson read:

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The cartridge 238 [shown in Figure 7] is principally intended as a purifier and would not normally be used with water containing large amounts of suspended particles. For such conditions, the cartridge 192 [shown in Figure 6] could be substituted.

The appellants, on the other hand, argue (main brief, pages 10-13) that motivation is lacking for combining the teachings of Magnusson and either Parker or Knight along the lines of claims 22, 28 or 42.

As both the examiner and the appellants recognize, obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching, suggestion or incentive supporting the combination. The extent to which such suggestion must be explicit in, or may be fairly inferred from, the references is decided on the facts of each case, in light of the prior art and its relationship to

the appellants' invention. As in all determinations under 35 U.S.C. § 103, the decision maker must bring judgment to

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bear. It is impermissible, however, simply to engage in a hindsight reconstruction of the claimed invention, using the appellants' structure as a template and selecting elements from references to fill the gaps. The references themselves must provide some teaching whereby the appellants' combination would have been obvious. In re Gorman, 933 F.2d 982, 986, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991) (citations omitted). That is, something in the prior art as a whole must suggest the desirability, and thus the obviousness, of making the combination. See In re Beattie, 974 F.2d 1309, 1312, 24 USPQ2d 1040, 1042 (Fed. Cir. 1992); Lindemann Maschinenfabrik GmbH v. American Hoist and Derrick Co., 730 F.2d 1452, 1462, 221 USPQ 481, 488 (Fed. Cir. 1984).

After reviewing the combined teachings of the applied prior art, we reach the conclusion that the subject matter of claims 22, 28 and 42 would not have been suggested to one of ordinary skill in the art at the time the invention was made. Specifically, we agree with the appellants that there is no suggestion, motivation, or teaching in the applied prior art whereby a person of ordinary skill would have been instructed to

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replace the "straw supported cartridge" (col. 2, line 66) of Magnusson with the filter tube 7 of Parker or the filter 22 of Knight. Like the appellants, we view column 8, lines 42-46 of Magnusson as stating simply that the straw-like cartridge 192 in Figure 6 could be substituted for the straw-like cartridge 238 in Figure 7. Both cartridges 192 and 238 are disclosed as being mounted on a bottle cap usable with a water containment means "which is pressurizable by way of a squeeze action and/or a sucking action" (col. 6, lines 47-50). In other words, a positive pressure alone, or in combination with a sucking action, forces the water through the cartridge 192 and 238. Neither Parker nor Knight discloses a straw-like filter structure or a filter mounted on a bottle cap. Rather Parker and Knight disclose porous, tubular filter elements mounted in the necks or openings of canteens or water bags, not on the stopper 12 (Parker) or cover 26 (Knight). Further, neither of the filter elements disclosed in Parker and Knight appears capable of permitting the user to withdraw water from the container through a sucking action. Instead, the containers must be at least partially inverted, i.e., the water is poured from the

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containers. In our view, the substitution of the filters disclosed in Parker and Knight for the cartridge 238 shown in Magnusson's Figure 7 would require significant reconstruction of the primary reference. We fail to perceive any suggestion in Magnusson, Parker or Knight which would have motivated one of ordinary skill to make such a wholesale change in the Magnusson structure, except the hindsight accorded one who first viewed the appellants' disclosure. This, of course, is impermissible. See In re Fritch, 972 F.2d 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

We have also carefully reviewed the Vanderbilt patent additionally relied upon by the examiner in support of the rejection of independent claims 22, 28 and 42, but find nothing therein that makes up for the deficiencies of Magnusson, Parker or Knight noted above. It therefore is our conclusion that the combined teachings of Magnusson, Parker, Knight and Vanderbilt fail to establish a *prima facie* case of obviousness with regard to the subject matter of independent claims 22, 28 and 42, and, it follows, of dependent claims 23

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through 27, 29 through 32 and 34 through 41.

Since we have determined that the prior art relied on by the examiner does not establish a *prima facie* case of obviousness, it is unnecessary for this panel to consider appellants' arguments (main brief, pages 4-9) regarding the objective evidence of nonobviousness.

CONCLUSION

To summarize, the rejection of claims 22 through 32 and 34 through 42 under 35 U.S.C. § 103 is reversed.

REVERSED

IRWIN CHARLES COHEN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
NEAL E. ABRAMS)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
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JOHN F. GONZALES)
Administrative Patent Judge)

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