

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 16

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES  
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Ex parte THOMAS W. HOLMQUIST-BROWN and PETER O. REKOW

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Appeal No. 1997-0153  
Application No. 08/375,681  
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ON BRIEF  
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Before COHEN, NASE, and LAZARUS, Administrative Patent Judges.  
LAZARUS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-4 and 6-16 under 35 U.S.C. § 103.<sup>1</sup>

We affirm.

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1 At pages 1-2 of the examiner's answer it is correctly noted that "The statement of the status of the claims contained in the brief is incorrect... this appeal involves claims 1-4 and 6-16... claim 5 has been indicated to be allowable when written in independent form."

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BACKGROUND

The appellants' invention is directed to a filter cartridge for a respirator. Particular emphasis is placed on the tight fit (page 3, lines 19-22) between the filter cartridge and the respirator housing such that fluid does not flow between the filter cartridge and respirator housing. Independent claim 1 is representative of the subject matter on appeal and a copy thereof is set forth in the appendix to the appellants' brief.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:<sup>2</sup>

Braun et al. (Braun)	4,790,306	Dec. 13, 1988
Schlobohm	5,148,803	Sep. 22, 1992

Claims 1-4 and 6-16 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schlobohm in view of Braun.

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<sup>2</sup> The examiner has initialed the IDS Form PTO-1449 filed 15 July 1996 indicating consideration of the French and German references. However, there is no indication of the examiner's consideration of U.S. Patents No. 3,072,119 and 2,804,936 cited on the Form PTO-1449 filed 17 June 1996.

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Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the answer (Paper No. 11, mailed August 6, 1996) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 9, filed July 5, 1996) and reply brief (Paper No. 12, filed October 8, 1996) for the appellants' arguments thereagainst.

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 make the determinations which follow.

In accordance with 37 CFR § 1.192(c)(7), we have selected claim 1 as the representative claim from the appellants' grouping of claims 1-4 and 6-16 (brief, page 2) to decide the appeal on the rejection under 35 U.S.C. § 103 before us.

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Claim 1 is directed to a filter cartridge comprising, inter alia, a housing and a filter element that includes a bonded sorbent filter element. Claim 1 further recites that the filter element is compressed by the sleeve to form an interference therewith.

Schlobohn discloses a respirator mask with easy-to-change respirator filter (col. 1, lines 55-56). Schlobohm teaches a respirator filter 2 held in contact with stop 12 by a cuff 7 having a rigid band portion 6 and an elastic sleeve 8 (Figure 1). Schlobohn does not disclose a specific type of respirator filter, rather respirator filters are generally discussed (col. 1, lines 55-68).

Braun discloses a respiratory mask having a rigid or semi-rigid, insert molded filtration element. Braun teaches that bonded absorbent filtration elements are known in the art for use with a respiratory mask (col. 2, lines 26-34).

After the scope and content of the prior art are

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determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of Schlobohn and claim 1, it is our opinion that the only difference is the limitation of the specific type of filter (i.e., a bonded sorbent filter element).

With regard to this difference, the examiner determined (answer, p. 3) that it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to substitute the bonded sorbent filter element of Braun for element "2" of Schlobohn. We agree.

The appellants urge that the use of a bonded sorbent filter element is not taught by Schlobohm (brief, page 3). We agree. However, the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. See In re Young, 927 F.2d 588, 591, 18 USPQ2d 1089, 1091 (Fed. Cir. 1991) and In re Keller,

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642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981). The appellants have not provided any rationale as to why the choice of a prior art type of filter with its self-evident advantages (such as disclosed by Braun) would not have been obvious to one of ordinary skill when practicing the invention of Schlobohm.

Schlobohm does not specify the type of respirator filter used in the disclosed respirator mask. Accordingly, it is our view that an artisan would have selected from among known filters to practice the invention of Schlobohm. We consider that it would have been obvious to one of ordinary skill, practicing the invention of Schlobohm, to select a known filter type such as Braun's bonded sorbent filter. We note that the appellants' specification at page 2 lines 23-31 cites the use of bonded sorbent filters in several prior art patents (including the patent to Braun).

It is urged (brief, page 3) that Schlobohm does not teach "having the filter cartridge housing compress the filter element to create an interference fit." The appellants stress

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that the cuff 7 of Schlobohm forms a loose fit on the filter element 2 and a seal is achieved by expansion of the sleeve 8 and not by compression of the filter element.

The object of the appellants' invention is to ensure that fluid flows through the filter element and not between the filter and housing (page 3, lines 19-22). This is accomplished by providing a tight filter/housing fit. Claim 1 recites that the filter element is compressed by the sleeve to form an interference therewith. As described by appellants, "[T]he interface between the bonded sorbent filter element and the housing sleeve prevents channeling (that is, passage of unfiltered air around the filter element) by having the filter element compressed at the interface with the sleeve." Brief, page 3, lines 19-22.

Webster's Third New International Dictionary (© 1971) at page 1178 defines "interference", in part, as "contact so close as to produce deformation and stress." The fit between the elastic sleeve 8 and filter 2 of Schlobohm is described as being "gas tight" (col. 2, lines 4-13 and col. 3, lines 51-

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52). When the filter is inserted and the elastic sleeve is folded over the end of the filter to form a gas tight fit there must be close (gas tight) contact between the filter and the elastic sleeve. Such contact would result in, at least, the elastic sleeve being deformed and stressed, *i.e.* an interference fit. This likely also extends to the bonded sorbent filter of Braun which is described as "semi-rigid" (col. 2, line 26) causing it also to undergo some deformation and stress. Although the appellants comment (brief, footnote No. 1) that "a bonded sorbent filter element is a relatively rigid structure that will not compress in response to pressure from an elastic sleeve", Braun's description of a bonded sorbent "semi-rigid" filter suggests at least some compression takes place. Attorney's argument in a brief cannot take the place of evidence. In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974). Thus, we conclude that Schlobohm inherently describes a compressed interference fit that accomplishes the same purpose as appellants, *i.e.*, prevention of gas flow between the filter and sleeve.

The appellants describe Schlobohm's "loose fit"

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relationship between the cuff 7 and filter 2 (brief, page 3).

However, while the band portion 6 of the cuff 7 may, or may not, be loose fitting, it is clear that the elastic sleeve portion 8 of the cuff 7 is not loose after it is folded back into gas tight contact with the filter (Schlobohm, col. 2, lines 10-13).

Thus, we find that all of the features of claim 1 are found in Schlobohm with the exception of the specific type of filter. Such selection from conventional filters would have been obvious to one of ordinary skill for the reasons set forth above.

Accordingly, the decision of the examiner to reject claim 1 under 35 U.S.C. § 103 is affirmed. As noted above, the appellants have grouped claims 1-4 and 6-16 as standing or falling together. Thereby, in accordance with 37 CFR ' 1.192(c)(7), claims 2-4 and 6-16 fall with claim 1. Thus, it follows that the decision of the examiner to reject claims 2-4 and 6-16 under 35 U.S.C. ' 103 is also affirmed.

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CONCLUSION

To summarize, the decision of the examiner to reject claims 1-4 and 6-16 under 35 U.S.C. § 103 is affirmed.

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

AFFIRMED

IRWIN CHARLES COHEN	)	
Administrative Patent Judge	)	
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	)	
	)	BOARD OF PATENT
JEFFREY V. NASE	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
	)	
	)	
RICHARD B. LAZARUS	)	
Administrative Patent Judge	)	

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