

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 19

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte WOLFGANG K. VON SCHWARZENFELD

Appeal No. 97-0275
Application 08/373,192¹

ON BRIEF

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

DECISION ON APPEAL

This appeal, filed in response to the final rejection dated November 7, 1995 (Paper No. 9), involves claims 12 through 14 and 23, all of the claims pending in the application.²

¹ Application for patent filed January 13, 1995. According to appellant, this application is a national stage application under 35 U.S.C. § 371 of PCT/EP94/01274 filed April 23, 1994.

² Claims 12 through 14 were amended and claim 23 was added subsequent to the final rejection.

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The invention relates to a sail particularly designed to be reefed. Claim 23 is illustrative and reads as follows:

23. A sail arrangement, comprising:

a sail;

means for reefing the sail; and

an inflatable luff chamber forming an integral part of the sail and defining a reefing axis, wherein the luff chamber is formed as one of an aerodynamically profiled rubber hose and an aerodynamically profiled plastic hose, and wherein the sail has a pocket for receiving the one hose.

The references relied upon by the examiner as evidence of obviousness are:

Ljungstrom	2,107,303	Feb. 8, 1938
Birchill	3,391,668	Jul. 9, 1969
Schmidt ³ (German Patent Document)	G 86 24 010.2	Feb. 12, 1987

Claims 12 through 14 and 23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Birchill in view of Ljungstrom and Schmidt.

Birchill discloses a sail 12 having an inflatable chamber 14 disposed along its luff portion, i.e., along its leading edge. The chamber has an airfoil configuration and functions to prevent

³ An English language translation of this reference, prepared on behalf of the Patent and Trademark Office, is appended hereto.

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the problem known as "luffing" by preserving the desired contour of the sail under different conditions. In the embodiment illustrated in Figure 4, the forward edge 28 of the inflatable chamber carries a bolt rope 30 which is received within a slot 31 in a mast 29. As conceded by the examiner (see page 4 in the answer, Paper No. 18), the Birchill sail does not meet the limitations in claim 23 pertaining to the means for reefing the sail and to the hose-pocket construction of the luff chamber.

Ljungstrom discloses a sail 4 which is adapted to be reefed by rotating the mast 3 to which it is mounted. To this end, the mast is operatively associated with means for effectuating the rotation (see Figures 6 and 7).

Schmidt discloses a sail 1 having a pocket 5 at its leading edge. The pocket envelopes the mast 2 to which the sail is mounted and three inflatable tubes 7, 8 and 9. The tubes are configured to define an aerodynamic profile which provides a laminar air flow along the surface of the sail in the area of the mast.

According to the examiner, it would have been obvious to one of ordinary skill in the art at the time the invention was made

to use the mast 29 of BIRCHILL to reef the sail 12 of BIRCHILL by providing a reefing means similar to that shown in figures 6 and 7 of LJUNGSTROM. As such the luff chamber 27 [sic, 14] at its forward end defined by

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edge 28 and bolt rope 30 will define a reefing axis for reefing the sail 12 about the mast [answer, page 4].

The examiner also considers that it further would have been obvious to one of ordinary skill in the art

to provide a hose similar to 7 of [Schmidt] within the pocket 14 of BIRCHILL. Use of such a hose means that inflating of the pocket of BIRCHILL can be better controlled as the air flowing into the pocket will not have to be relied upon to inflate the pocket [answer, page 5].

Even if the references were combined in the foregoing manner, however, the resulting sail arrangement would not meet the limitation in independent claim 23 requiring the inflatable luff chamber to define a reefing axis. To begin with, the examiner's determination that the forward end of Birchill's luff chamber 14 at edge 28 and bolt rope 30 would define a reefing axis if the mast 3 were made rotatable in view of Ljungstrom is not well taken. The actual reefing axis in such a modified arrangement would be at the central axis of the mast and not at the edge 28 and bolt rope 30. Moreover, claim 23 requires the luff chamber, and not its forward edge, to define the reefing axis. Thus, even if the edge 28 and bolt rope 30 of Birchill's sail arrangement as modified in view of Ljungstrom did define a reefing axis, the limitation at issue would still not be met. Since Schmidt does not cure this shortcoming in the basic

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Birchill-Ljungstrom combination, the appellant's position (see pages 6 through 11 in the brief, Paper No. 17) that the combined teachings of these references would not have suggested the subject matter recited in claim 23, and in claims 12 through 14 which depend therefrom, is persuasive. Accordingly, we shall not sustain the standing 35 U.S.C. § 103 rejection of these claims.

The decision of the examiner is reversed.

REVERSED

IAN A. CALVERT)	
Administrative Patent Judge)	
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NEAL E. ABRAMS)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
JOHN P. McQUADE)	
Administrative Patent Judge)	

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