

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(2) is not binding precedent of the Board.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. 14

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KEVIN MCCARTHY
and
ROBERT BROOKS

Appeal No. 97-3289
Application 08/550,895¹

ON BRIEF

Before STONER, **Chief Administrative Patent Judge**, and ABRAMS
and MEISTER, **Administrative Patent Judges**.

¹ Application for patent filed October 31, 1995.

Appeal No. 97-3289
Application 08/550,895

ABRAMS, *Administrative Patent Judge.*

DECISION ON APPEAL

This is an appeal from the decision of the examiner finally rejecting claims 9-23, which constitute all of the claims remaining of record in the application.

The appellants' invention is directed to an air mattress. The subject matter before us on appeal is illustrated by reference to claims 9 and 18, which have been reproduced in an appendix to the Brief.

THE REFERENCES

The references relied upon by the examiner to support the final rejection are:

Nail 1972	3,705,429	Dec. 12,
Fraige 1976	3,957,557	May 18,
Brock 1977	4,038,447	July 26,
Walker 1987	4,644,597	Feb. 24,

Appeal No. 97-3289
Application 08/550,895

THE REJECTION

Claims 9-23 stand rejected under 35 U.S.C. § 103 as being unpatentable over Nail in view of Walker, Brock and Fraige.

The rejection is explained in the Examiner's Answer.

The opposing viewpoints of the appellants are set forth in the Brief.

OPINION

The rejection before us is under 35 U.S.C. § 103, and therefore 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)), which is established when the teachings of the prior art itself would appear to have suggested the claimed subject matter to one of

Appeal No. 97-3289
Application 08/550,895

ordinary skill in the art (**see *In re Bell***, 991 F.2d 781, 783, 26 USPQ2d 1529, 1531 (Fed. Cir. 1993)). This is not to say that the claimed invention must expressly be suggested in any one or all of the references, however, for the test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art (**see *Cable Elec. Prods., Inc. v. Genmark, Inc.***, 770 F.2d 1015, 1025, 226 USPQ 881, 886-87 (Fed. Cir. 1985)), considering that a conclusion of obviousness may be made from common knowledge and common sense of the person of ordinary skill in the art without any specific hint or suggestion in a particular reference (**see *In re Bozek***, 416 F.2d 1385, 1390, 163 USPQ 545, 549 (CCPA 1969)), with skill being presumed on the part of the artisan, rather than the lack thereof (**see *In re Sovish***, 769 F.2d 738, 742, 226 USPQ 771, 774 (Fed. Cir. 1985)).

The objective of the appellants' invention is to provide a number of improvements over prior art air mattresses, such as the one disclosed in Nail, which was mentioned in the appellants' specification and was applied by the examiner as the primary reference. The invention is

Appeal No. 97-3289
Application 08/550,895

manifested in three independent claims, the broadest of which is claim 18. This claim is directed to an inflatable air mattress comprising a woven textile top sheet, an inner plastic sheet laminated to the top sheet and made with plasticizers, a bottom plastic sheet, and a plurality of beams, wherein the inner plastic sheet and the bottom plastic sheet are bonded by lap seams. The examiner finds the basic structure in Nail, and looks to Walker, Brock and Fraige for the remaining features, concluding that it would have been obvious to one of ordinary skill in the art to modify Nail in such a manner as to meet the terms of the claim.

Nail discloses an inflatable air mattress comprising a top plastic sheet 2, a bottom plastic sheet 3, and a plurality of beams 11. The top and bottom plastic sheets are sealed together along edges 6 and 7, and the beams are sealed to the top and bottom sheets (column 2, lines 16-19 and 38-41). Nail does not disclose or teach a woven textile top sheet laminated to the top plastic sheet, or that the top plastic sheet is made with plasticizers and is bonded by lap

seams to the bottom plastic sheet, all of which are required by claim 18.

The Walker patent also is directed to an air mattress. In the embodiment shown in Figure 8, Walker discloses walls made of an inner layer of plastic sheet 113 and an outer layer of "a soft fabric, such as cotton or a synthetic fabric, bonded to the outside surface of layer 113" (column 7, lines 21-30). We share the examiner's view that one of ordinary skill in the art would have found it obvious to bond a woven textile top sheet to the upper surface of the Nail top plastic sheet, in view of the teaching of Walker. Suggestion for such a modification is found in the self-evident advantage of making the upper surface of a mattress more comfortable for the user to rest upon than the bare plastic of Nail, a feature which would have been known to the artisan, as confirmed by the explicit teaching of Walker that the fabric be "soft."

Neither Nail nor Walker explicitly teaches that the plastic sheets utilized should be "made with plasticizers," as is required by claim 18. However, the use of plasticizers in

Appeal No. 97-3289
Application 08/550,895

air-filled items is taught by Brock, in which certain properties of the polyvinyl chloride plastic sheeting are improved by the addition of plasticizers (column 4, lines 33-35). According to Brock, this improves the flame resistance of the plastic sheet, and it is our view that this improvement in safety would have served as motivation for one of ordinary skill in the art to so modify the plastic of the Nail mattress. In this regard, the prior art teachings relied upon need not disclose the same advantage that the appellants allege, for all that is required is that there is a reasonable suggestion to combine the references. *See In re Kronig*, 539 F.2d 1300, 1304, 190 USPQ 425, 427-428 (CCPA 1976) and *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Int. 1985). We further note that it was known at the time of the appellants' invention to add plasticizer to natural and synthetic rubber and resins for the same reason as did the appellants, that is, to impart

Appeal No. 97-3289
Application 08/550,895

flexibility (specification, page 7), as is evidenced by the common definition of this term.²

Fraige is directed to improvements in water mattresses, and discusses the need for strength in such structures, since they are made of thin plastic films such as polyvinyl chloride (column 1, line 21 *et seq.*). This reference points out that lap seams have more strength than butt seams (column 4, lines 3-19).

We agree with the examiner that one of ordinary skill in the art would have found it obvious to utilize lap seams in the bonding

of the plastic sheets to one another, in view of the explicit teaching found in Fraige.

For the reasons set forth above, it is our conclusion that the combined teachings of Nail, Walker, Brock and Fraige establish a *prima facie* case of obviousness with

² See, for example, *Webster's Third New International Dictionary*, 1971, p. 891.

Appeal No. 97-3289
Application 08/550,895

regard to the subject matter recited in claim 18. This being the case, we shall sustain the rejection of claim 18. Moreover, since the appellants have chosen not to challenge with any reasonable specificity before this Board the rejection of dependent claims 19-23, they will be grouped with independent claim 18, from which they depend, and fall therewith. **See In re Nielson**, 816 F.2d 1567, 1570, 2 USPQ2d 1525, 1526 (Fed. Cir. 1987).

Independent claims 9 and 15 are more detailed than claim 18, in that among their limitations is the requirement that "said bottom plastic sheet [be] smaller in area than said woven textile top sheet and said inner plastic sheet." According to the appellants, this offers several advantages (specification, page 8). None of the references disclose or teach such a structural requirement, and the examiner has taken the position that the relative sizes of the three sheets "is a matter of engineering design choice since this limitation does not seem to materially affect the function of the claimed

Appeal No. 97-3289
Application 08/550,895

invention" (Answer, page 3). This conclusion is not supportable in fact or in law. The fact is that the appellants have stated in the specification that this limitation results in improved function, which contradicts the examiner's reasoning. The law is that in order to be obvious such a modification must have been suggested to or within the common knowledge of one of ordinary skill in the art, and there is no evidence of record in support of that.

For the reasons set forth above, we will not sustain the rejection of independent claims 9 and 15 or, it follows, of dependent claims 10-14, 16 and 17.

We have, of course, carefully considered all of the arguments set forth by the appellants as they bear upon the claims the rejection of which we have sustained. However, these arguments have not been persuasive. Our position with regard to each of them should be apparent from the foregoing discussions. In addition, with regard to the allegation of hindsight, we wish to note that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight

Appeal No. 97-3289
Application 08/550,895

reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. **See *In re McLaughlin***, 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971). We believe that to be the case here, as we have explained above.

The appellants also have argued that Brock is not analogous art because "construction blankets are not related and not analogous to the use of air beds in foam support frames" (Brief, page 8). However, the test for analogous art, which the appellants have not directly addressed, is first whether the art is within the field of the inventor's endeavor and, if not, whether it is reasonably pertinent to the problem with which the inventor was involved. **See *In re Wood***, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). A reference is reasonably pertinent if, even though it may be in a

Appeal No. 97-3289
Application 08/550,895

different field of endeavor, it logically would have commended itself to an inventor's attention in considering his problem because of the matter with which it deals. **See In re Clay**, 966 F.2d 656, 659, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992). Brock is directed to a flame resistant blanket which, in common with the appellants' air mattress, comprises a plurality of layers of plastic defining a core in which there

are a plurality of cell portions containing a gas such as air (column 3, lines 4-15). As such, it is our view that Brock would have commended itself to the attention of one working with air mattresses, in that there is a commonality of construction and the problems associated therewith, such as flexibility and seam integrity. It therefore is our opinion that Brock qualifies as analogous art under the second portion of the **Wood** test.

Finally, the claims are directed to an inflatable air mattress "for use in a foam support frame," but the frame is not claimed. Arguments based upon the failure of the

Appeal No. 97-3289
Application 08/550,895

references to mention using the disclosed mattresses in the context of use in such a frame fail, for from our perspective the mattresses disclosed by Nail, Walker and Fraige all are capable of being so used.

SUMMARY

The rejection of claims 18-23 is sustained.

The rejection of claims 9-17 is not sustained.

The decision of the examiner is affirmed-in-part.

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

AFFIRMED-IN-PART

BRUCE H. STONER, JR.)

Appeal No. 97-3289
Application 08/550,895

	Chief Administrative Patent Judge)	
)	
)	
)	BOARD OF
PATENT	JAMES M. MEISTER)	APPEALS
AND	Administrative Patent Judge)	
INTERFERENCES)	
)	
	NEAL E. ABRAMS)	
	Administrative Patent Judge)	

Appeal No. 97-3289
Application 08/550,895

James R. Thein
Suite 108
2231 Crystal Drive
Arlington, VA 22202