

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 23

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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Ex parte WILHELM ENGST

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Appeal No. 1997-1122  
Application No. 08/170,177

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HEARD: March 08, 2000

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Before GARRIS, OWENS, and KRATZ, Administrative Patent Judges.  
KRATZ, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's refusal to allow claims 14, 15, 17, 20, 22-32, and 34 as amended after the final rejection, which are all of the claims pending in this application.

BACKGROUND

Appellant's invention is directed to an absorption mat for hydrocarbons in liquid, solid or paste form. The mat includes a flat molded body of plate or block shape formed from elastomeric granulates or shavings that are joined in a

rigid bond with each other via a binding means. The binding means is resistant to hydrocarbons so as to allow the mat body to maintain its overall shape notwithstanding contact with the hydrocarbons. Moreover, the granulates or shavings are joined in a fashion such that a multiplicity of hollow spaces that communicate with each other are formed in the body. Additional spaces are also formed in the body to provide for swelling as hydrocarbons are taken in by the body. The body has an uncovered top surface for receiving hydrocarbons. According to appellant, the mat may be "... placed on floors, ramps and service aisles..." (specification, page 2) to protect the environment from hydrocarbons that may drip by trapping such drippings in the mat. Claim 14, the only independent claim on appeal, is reproduced below.

14. An absorption mat for hydrocarbons in liquid, paste or solid form including oils, fats, fuels and solvents, the absorption mat comprising:

a flat molded body having a plate or block configuration;

said body having an uncovered top surface completely exposed to receive said hydrocarbons thereon;

said body being defined by granulate or shavings made of elastomer for absorbing and trapping said hydrocarbons therein;

binding means for joining said granulate or shavings in a form-maintaining rigid bond with each other and to define a multiplicity of hollow spaces in said body communicating with each other and said top surface thereby facilitating the dispersal of said hydrocarbons within said body for absorption thereby;

said binding means being resistant to hydrocarbons thereby causing said body to retain its overall shape in the presence of said hydrocarbons; and

said flat molded body having additional space formed therein to accommodate swelling of said flat molded body as the hydrocarbons become trapped therein.

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

Crouch et al. (Crouch) 1971	3,591,494	July 06,
Stark 1984	4,481,335	Nov. 06,
Valley 1989	4,826,030	May 02,

Kirk-Othmer Encyclopedia of Chemical Technology (Kirk-Othmer), Third Edition, Vol. 16, pp. 433-34 and Vol. 20, pp. 367-69, 432 and 433, John Wiley and Sons (1981).

Claims 14, 15, 17, 20, 22, 23, 25, 26, 28-32, and 34 stand rejected under 35 U.S.C. § 103 as being unpatentable over Valley in view of Crouch and Stark. Claims 24 and 27 stand rejected under 35 U.S.C. § 103 as being unpatentable over Valley in view of Crouch and Stark as applied above, and further in view of Kirk-Othmer.

OPINION

We have carefully considered the respective positions advanced by appellant and the examiner. In so doing, we find ourselves in agreement with appellant's position that the rejections are not well-founded. Accordingly, we will not sustain the stated rejections.

It is the burden of the examiner to establish why one having ordinary skill in the art would have been led to the claimed invention by the reasonable teachings or suggestions found in the prior art, or by a reasonable inference to the artisan contained in such teachings or suggestions. See *In re Sernaker*, 702 F.2d 989, 217 USPQ 1 (Fed. Cir. 1983). This the examiner has not done.

Valley discloses a device comprising an absorption mat made of an open-cell polyurethane foam block that is disclosed as being useful for hydrocarbon absorption and collection. Crouch discloses the use of rubbery and thermoplastic polymers as part of a powder composition that is disclosed as useful for removing floating hydrocarbons from an aqueous body. Stark teaches that rubber scrap and a binder may be used as part of a composition which may be molded to form "rubber-like

slabs for shoe soles, floor mats and the like" (column 1, lines 41-64).

Recognizing that the mat of Valley does not disclose several of the features required by the appealed claims herein (answer, page 4), the examiner additionally relies on the teachings of Crouch and Stark in an attempt to make-up for the deficiencies of Valley to establish the obviousness, within the meaning of 35 U.S.C. § 103, of the claimed mat.

According to the examiner, it would have been obvious to one of ordinary skill in the art to modify the block containing mat construction of Valley to include a molded porous body made of elastomeric granulate or shavings and a binder rather than the unitary polyurethane or equivalent material taught by Valley since Crouch would have suggested that elastomeric materials were useful as oil absorbents and Stark teaches that rubber scrap and binder and be combined and molded into useful structures such as a mat (answer, pages 4 and 5). Moreover, it is the examiner's opinion that the formation of additional spaces in the modified molded block body of the mat of Valley as called for by the appealed claims herein would have been obvious to one of ordinary skill in the

art to improve absorption (answer, page 5). From the examiner's perspective, this is so since it is allegedly well-known that increasing surface area improves absorption (answer, page 9).

The difficulty we have with the examiner's position is highlighted by the examiner's viewpoint regarding the obviousness of the additional spaces in the proposed modified block body of the mat of Valley. This is so since the examiner has not established where the teachings of the applied references suggest this feature that is required by all of the appealed claims herein. (answer, page 5). Even if we could accept the examiner's suggested officially noticed fact that increasing surface area improves absorption, the examiner has not met the burden of explaining why a skilled artisan would have been motivated to use additional spaces formed in a molded body as claimed herein as the means for increasing surface area.

More fundamentally, however, we note that appellant disputes the officially noted fact and the examiner's assertion of the obviousness of the claimed limitation at issue. According to appellant, the examiner's officially

noted fact "... cannot apply to an absorption mat" (brief, page 11) and the claimed additional spaces limitation "... places the applicant's invention even further out of the reach of the person exercising only ordinary skill" (brief, page 9). It is well settled that an allegation of obviousness unsubstantiated by a factual basis upon which to establish the prima facie obviousness of the claimed invention as a whole, including each and every limitation of the claims is not sufficient. See *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 1596, 1600 (Fed. Cir. 1988); *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), *cert. denied*, 389 U.S. 1057 (1967).

Under the present circumstances, we can not agree that the examiner has met the burden of establishing that a skilled artisan would have been imbued with both a suggestion and reasonable expectation of success in combining the references as proposed so as to arrive at the claimed invention by: (1) substantially modifying the mat of Valley to correspond to the mat at issue herein by using a significantly different construction of elastomeric granulate or shavings, and a binding means resistant to hydrocarbons; and (2) providing additional spaces in such a substantially altered

mat to retain its overall shape after hydrocarbon contact.  
*See In re Rouffet*, 149 F.3d 1350, 1356, 47 USPQ2d 1453, 1456  
(Fed. Cir. 1998).

The determination of obviousness must be based on facts,  
and not on unsupported generalities. *See In re Freed*, 425  
F.2d 785, 787, 165 USPQ 570, 571 (CCPA 1970).

Since the additional Kirk-Othmer reference applied to  
claims 24 and 27 does not cure the above-noted deficiencies,  
we will not sustain either of the stated rejections.

#### CONCLUSION

The decision of the examiner to reject claims 14, 15, 17,  
20, 22, 23, 25, 26, 28-32, and 34 under 35 U.S.C. § 103 as  
being unpatentable over Valley in view of Crouch and Stark and  
to reject claims 24 and 27 under 35 U.S.C. § 103 as being

unpatentable over Valley in view of Crouch and Stark as  
applied above, and further in view of Kirk-Othmer is reversed.

REVERSED

BRADLEY R. GARRIS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	
	)	BOARD OF PATENT
TERRY J. OWENS	)	APPEALS
Administrative Patent Judge	)	AND
	)	INTERFERENCES
	)	
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	)	
PETER F. KRATZ	)	
Administrative Patent Judge	)	

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Appeal No. 1997-1122  
Application No. 08/170,177

Page 10

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Appeal No. 1997-1122  
Application No. 08/170,177

Page 11

APPEAL NO. - JUDGE KRATZ  
APPLICATION NO. 08/170,177

APJ KRATZ

APJ OWENS

APJ GARRIS

DECISION: **REVERSED**

Prepared By: TINA

**DRAFT TYPED:** 16 Oct 00

**FINAL TYPED:**