

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 27

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* PAULA J. CARLSON, CATHLEEN M. NORLAND,  
NICOL M. LARSON and JOHN J. ROLANDO

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Appeal No. 2000-0057  
Application 08/748,053

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ON BRIEF

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Before OWENS, KRATZ and PAWLIKOWSKI, *Administrative Patent Judges*.

OWENS, *Administrative Patent Judge*.

*DECISION ON APPEAL*

This appeal is from the final rejection of claims 1-4, 6-16 and 39-49. Claims 17-38, which are all of the other claims remaining in the application, stand withdrawn from consideration by the examiner as being directed toward a nonelected invention.

*THE INVENTION*

The appellants' claimed invention is directed toward acid-containing cleaning compositions. Claims 1 and 41 are illustrative:

1. An acid cleaner composition comprising:

a) an effective amount of an acid component comprising at least 5 wt% of a normally liquid acid and at least 5 wt% of a normally solid acid, the total weight of both acids are at least 10 wt%; wherein the normally solid acid is a solid at a temperature less than about 40EC and the normally liquid acid is a liquid at a temperature of less than about 40EC;

b) an effective soil suspending amount of a surfactant composition;

c) an effective solidifying amount of a urea compound;  
and

d) water in an amount of about 1 part water per each 1 to 6 parts urea; wherein the solid block cleaner composition is solidified and held within a disposable plastic container.

41. An acid cleaner composition comprising:

a) an effective amount of an acid component comprising:

i) about 5 to 40 wt% of phosphoric acid;

ii) about 2 to 20 wt% of citric acid; and

iii) about 5 to 25 wt% of sulfamic acid;

wherein the total weight of the acids are at least 10 wt% of the acid cleaner;

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b) an effective soil suspending amount of a surfactant composition;

c) an effective solidifying amount of a urea compound;  
and

d) an effective amount of water for solidification;

wherein the composition is solidified into a solid block and is held within a disposable plastic container.

#### *THE REFERENCES*

Brown-Skrobot et al. (Brown-Skrobot) 4,975,217 Dec. 4,  
1990 Bull 5,310,549 May  
10, 1994

#### *THE REJECTIONS*

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1-4, 6-11, 13, 15, 16, 39-46 and 48 over Bull, and claims 12, 14, 47 and 49 over Bull in view of Brown-Skrobot.

#### *OPINION*

We reverse the aforementioned rejections. We need to address only the independent claims, i.e., claims 1 and 39-41.

Claims 1, 39 and 40 require that the composition contains at least 5 wt% of a normally liquid acid, i.e., an acid which is liquid at a temperature of less than about 40°C. The appellants' specification uses the terms "liquid" and either

"aqueous" or "solution based" in the alternative when discussing the liquid acid, e.g., "... a normally liquid material or an aqueous acid composition ..." (page 11, lines 29-30), "... a combination of liquid or solution based acid source and a solid acid source..." (page 12, line 30), and "... the balance being a liquid or solution-based source of acid ..." (page 13, lines 3-4). Thus, when we give "normally liquid acid" its broadest reasonable interpretation in view of the specification, see *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989); *In re Sneed*, 710 F.2d 1544, 1548, 218 USPQ 385, 388 (Fed. Cir. 1983), we conclude that it includes only acids which are liquid in non-diluted form at a temperature less than about 40°C. The appellants' interpretation of this term is consistent with this interpretation (brief, page 5; reply brief, page 3).

Bull discloses a solid germicidal iodine concentrate which includes 5-50 wt% of an acidulant, about 0.5-10 wt% iodine, about 5-25 wt% of an iodine complexing agent, which can be a surfactant, and about 30-70 wt% of a solidifying agent which can be urea (col. 2, line 66 - col. 3, line 2;

col. 3, lines 54-57; col. 4, lines 48-53; col. 5, lines 3-16 and 36-49). Regarding the acidulant, Bull teaches (col. 5, lines 36-43):

Generally, any acid source which will not interfere with the formation of a solid product, or the activity of the iodine when subsequently diluted may be used in the composition of the present invention. Both organic and inorganic acids have been found to be generally useful in the present composition. Especially useful in the present composition are acids such as phosphoric acid, citric acid, and sulfamic acid.

The examiner argues that Bull's phosphoric acid is a liquid at temperatures below about 40°C (answer, page 5) but, as indicated by the evidence provided by the appellants (attachment to reply brief), the examiner is incorrect.

The examiner argues that the composition in example 18 of the appellants' specification includes citric acid, sulfamic acid and an aqueous solution of phosphoric acid, all of which are disclosed by Bull (answer, page 5). As discussed above, we interpret the appellants' claims 1, 39 and 40 as requiring an acid which is liquid in undiluted form at a temperature less than about 40°C. The phosphoric acid in Bull's example 18 is in solution form and, as acknowledged by the examiner (answer, page 5), citric acid is a solid at such a

temperature. Sulfamic acid has a melting point of approximately 250°C and, therefore, is a solid at temperatures below about 40°C.<sup>1</sup> The examiner does not address whether the sulfonic acid in the appellants' claim 18 is a normally liquid acid. If not, then it appears that the appellants' claims 1, 39 and 40 do not encompass the composition in this example.

Because the examiner has not established that Bull discloses or would have fairly suggested, to one of ordinary skill in the art, a composition containing a normally liquid acid, as that term is used by the appellants, the examiner has not established a *prima facie* case of obviousness of the compositions recited in the appellants' claims 1, 39 and 40.<sup>2</sup>

As for the appellants' claim 41, the examiner argues that because Bull discloses the phosphoric acid, citric acid and sulfamic acid recited in this claim, Bull inherently discloses the claimed composition (office action mailed September 2, 1998, paper no. 17, pages 7-8). The appellants' claim 41,

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<sup>1</sup> See *Hack's Chemical Dictionary* 645 (Julius Grant ed., McGraw-Hill, 4<sup>th</sup> ed. 1969).

<sup>2</sup> In the rejection of dependent claims 12, 14 and 49, the examiner does not rely upon Brown-Skrobot for a disclosure which remedies the above-discussed deficiency in Bull.

however, requires that the composition contains an effective amount of water for solidification and that the composition is solidified into solid block form. Bull discloses that the solid product may be enclosed in a tub or capsule, or may be pelletized by well known methods (col. 6, lines 21-23), and discloses using aqueous solutions of phosphoric acid and iodine to make the composition (col. 7, lines 45-47; examples 1-21). The examiner, however, has not explained how Bull would have fairly suggested, to one of ordinary skill in the art, using an amount of water which is effective for solidification, and solidifying the composition into solid block form. Also, the appellants' claim 41 requires that the composition contains a soil suspending amount of a surfactant composition. Bull's surfactant is a complexing agent for the iodine and is used in an amount determined by the amount of iodine desired to be released (col. 3, lines 54-57; col. 4, lines 57-64). The examiner has not established either that Bull's iodine-surfactant complex is effective for suspending soil or that Bull would have fairly suggested, to one of ordinary skill in the art, using a soil-suspending amount of surfactant in excess of that required to complex the iodine.

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Accordingly, we conclude that the examiner has not carried the burden of establishing a *prima facie* case of obviousness of the composition recited in the appellants' claim 41.<sup>3</sup>

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<sup>3</sup> In the rejection of dependent claim 47, the examiner does not rely upon Brown-Skrobot for a disclosure which remedies the above-discussed deficiency in Bull.

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*DECISION*

The rejections under 35 U.S.C. § 103 of claims 1-4, 6-11, 13, 15, 16, 39-46 and 48 over Bull, and claims 12, 14, 47 and 49 over Bull in view of Brown-Skrobot, are reversed.

*REVERSED*

	)	
TERRY J. OWENS	)	
Administrative Patent Judge	)	
	)	
	)	
	)	BOARD OF PATENT
PETER F. KRATZ	)	)
Administrative Patent Judge	)	APPEALS AND
	)	
	)	INTERFERENCES
	)	
BEVERLY A. PAWLIKOWSKI	)	
Administrative Patent Judge	)	

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