

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opinion in support of the decision being entered today (1) was not written for publication in a law journal and (2) is not binding precedent of the Board.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. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte MEHMET Y. BOLUK, MICHAEL S.
JARRELL, BARBARA J. BRYMER
and GERMAIN ARCHAMBAULT

Appeal No. 96-0126
Application 07/942,400¹

ON BRIEF

Before KIMLIN, GARRIS and PAK, Administrative Patent Judges.
GARRIS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the final rejection of claims 1 through 10 which are all of the claims in the application.

The subject matter on appeal relates to a deicer

¹ Application for patent filed September 9, 1992.

composition having improved anti-icing properties consisting essentially of a glycol, a pH-adjusting agent and a surfactant in an amount sufficient to cause the composition to have a certain contact angle on aluminum and a certain surface tension to thereby provide a spreading wetting value w of 0 to about -5 dynes per centimeter. Further details of this appealed subject matter are set forth in representative independent claim 1 which reads as follows:²

1. A deicer composition having improved anti-icing properties consisting essentially of from about 25% to about 95% by weight based on the weight of the total composition of glycol selected from the group consisting of ethylene glycol, diethylene glycol, triethylene glycol, polyethylene glycol, propylene glycol, dipropylene glycol, glycerol, and mixtures thereof; a pH-adjusting agent in an amount sufficient to provide a pH of 7 to about 10; and at least one nonionic or anionic surfactant, or mixtures thereof, in an amount sufficient to cause the composition to have a contact angle θ on aluminum of 0 to about 35E and a surface tension * of about 15 to about 40 dynes per centimeter, to provide a spreading wetting value w of 0 to about -5 dynes per centimeter in the equation $w = (\cos \theta + 1)$; optionally, a corrosion inhibitor; the remainder of the composition being water.

² We note that, on page 3 of the Brief, the appellants request amendments to the specification and claim 1 relating to the recited equation for determining the value w . This requested amendment should have been filed as a separate paper rather than as part of the Brief (see 37 CFR § 1.4(c) and MPEP § 1206 at page 1200-6 (Rev. 3, July 1997)) and has not been entered (or otherwise responded to) by the examiner. Thus, the aforementioned equation remains unamended in the form originally filed. Further comments regarding this equation and the appellants' requested amendment thereto will be made in the opinion section of this Brief.

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

Konig-Lamer et al. (Konig-Lamer) 1982	4,358,389	Nov. 9,
Ma et al. (Ma) 4, 1990	4,954,279	Sep.
Seaman 1990	4,978,469	Dec. 18,

Claim 1 stands rejected under 35 USC § 103 as being unpatentable over Ma, while claims 1 through 10 stand rejected under 35 USC § 103 as being unpatentable over Ma and Konig-Lamer in view of Seaman.³

We refer to the Brief and Reply Brief and to the Answer for a complete exposition of the opposing viewpoints expressed by the appellants and the examiner concerning the above noted rejections.

OPINION

For the reasons which follow, we will sustain each of the above noted rejections, and we will make a new rejection of

³ The appellants have separately grouped and argued the appealed claims as follows: claims 1-8, claim 9 and claim 10; see page 3 of the Brief and page 2 of the Answer.

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appealed claims 1 through 10 under the second paragraph of 35 USC § 112 pursuant to our authority set forth in 37 CFR § 1.196(b).

As indicated earlier at footnote 2, the appellants have attempted to amend the equation defined by independent claim 1 and thus implicitly have acknowledged that the claimed equation is inaccurate due to the absence of the symbol $*$. However, this claim is also inaccurate in that the recitation $\theta+1$ should read $-\theta-1$ as reflected on pages 8 and 10 of the specification. In this regard, we understand that the appellants have unsuccessfully attempted to amend this aspect of the specification so that the equation on pages 8 and 10 would read $\theta+1$ in accordance with claim 1 rather than $\theta-1$ in accordance with the original equation disclosure.

Nevertheless, it is clear that the original equation disclosure is in fact accurate and concomitantly that the appellants' attempted amendment to the specification disclosure would have rendered the equation inaccurate. This is because the original equation disclosure on specification pages 8 and 9 (i.e., $w = \sqrt{\cos^2 \theta - 1}$), when solved with the appellants' disclosed and claimed $*$ and θ values, yields w

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values within the here disclosed and claimed range (i.e., 0 to about -5 dynes per centimeter). On the other hand, were the equation amended so that $w-1$ reads $w+1$, the resultant values for w would be positive in nature and far outside of the appellants' disclosed and claimed range.

It is well settled that claim terminology must accurately define an applicant's invention in order to comply with the second paragraph of 35 USC § 112. In re Knowlton, 481 F.2d 1357, 1366, 178 USPQ 486, 492 (CCPA 1973). Because the equation defined by independent claim 1 is inaccurate in the two respects discussed above, this claim and all of the other claims on appeal (each of which refers back to claim 1) are hereby rejected under the second paragraph of 35 USC § 112 for failing to particularly point out and distinctly claim the appellants' invention. As indicated earlier, we make this new rejection pursuant to our authority under 37 CFR § 1.196(b).

Normally, a claim which fails to comply with the second paragraph of § 112 will not be analyzed as to whether it is patentable over the prior art. This is because such an analysis would necessarily require speculation with regard to the metes and bounds of the rejected claim. See In re Wilson,

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424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) and In re Steele, 305 F.2d 859, 862, 134 USPQ 292, 295 (CCPA 1962). In this instance, however, it would be particularly desirable to avoid the inefficiency of piecemeal appellate review. See Ex parte Ionescu, 222 USPQ 537, 540 (Bd. App. 1984). Therefore, in our discussion below, we will assess the examiner's § 103 rejection as though appealed claim 1 properly recited the equation for w as set forth on specification pages 8 and 10.

On the record before us, the composition defined by appealed claim 1 does not appear to distinguish over the composition disclosed by Ma. According to the appellants, patentee's composition requires a thickening agent which, it is argued, is excluded by the claim language "consisting essentially of". We cannot agree.

In the second full paragraph on page 12 of the specification, the appellants disclose that their composition "can optionally contain...propylene oxide/ethylene oxide copolymers... in the range of from about 0.01% to about 5% by weight based on the total weight of the composition". This disclosure leads us to the determination that the presence of

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such polymers at such concentrations would not materially affect the basic and novel characteristics of the appellants' composition and thus would not be excluded by the "consisting essentially of" language of appealed claim 1. In re Janakirama-Rao, 317 F.2d 951, 954, 137 USPQ 893, 896 (CCPA 1963) ("consisting essentially of" renders the claim open to the inclusion of unspecified ingredients which do not materially affect the basic and novel characteristics of the composition). This is significant since the thickening agents and corresponding concentrations disclosed by Ma include the appellants' afore-mentioned propylene oxide/ethylene copolymers and concentrations (e.g., see lines 56 through 68 in column 5). Thus, notwithstanding the appellants' arguments to the contrary, it is clear to us that appealed claim 1 includes, rather than excludes, these thickening agent copolymers and concentrations of Ma.⁴

We recognize that Ma fails to disclose the contact angle, surface tension and spreading wetting characteristics defined

⁴ Further regarding this issue, we emphasize that it is the appellants' burden of showing that components in Ma's composition would materially affect the basic and novel characteristics of the here claimed composition. In re De Lajarte, 337 F.2d 870, 873-874, 143 USPQ 256, 258 (CCPA 1964).

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in appealed claim 1. Nevertheless, because the ingredients and concentrations encompassed by this claim correspond to the ingredients and concentrations disclosed by Ma, it is fair to believe that patentee's compositions contain these recited characteristics of the here claimed compositions, and it is fair to require the appellants to shoulder the burden of proving otherwise. Whether the rejection is based on ?inherency? under 35 USC § 102, on ?prima facie obviousness? under 35 USC § 103, jointly or alternatively, the burden of proof is the same, and its fairness is evidenced by the inability of the Patent and Trademark Office to manufacture products or to obtain and compare prior art products. In re Best, 562 F.2d 1252, 1255, 195 USPQ 430, 433-434 (CCPA 1977).

In light of the foregoing, we hereby sustain the examiner's § 103 rejection of claim 1 as being unpatentable over Ma.

For analogous reasons, we also sustain the examiner's § 103 rejection of independent claim 1 and dependent claims 2 through 8 as being unpatentable over Ma and Konig-Lamer in view of Seaman. The appellants' arguments concerning the Konig-Lamer and Seaman references are not well taken. In any

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event, the appellants have stated that

[t]he Examiner cites Konig-Lamer to add corrosion inhibitors to the teachings of Ma, and cites Seaman to add non-ionic surfactants to the teachings of the other two references? (Brief, page 8),

and only certain dependent claims require such features which dependent claims the appellants have grouped as standing or falling with independent claim 1 (e.g., see footnote 3, supra).

As for claims 9 and 10, the processes defined thereby are either taught or would have been suggested by Ma's explicit disclosure concerning de-icing and anti-icing. By way of explanation, the repression recited in claim 9 would necessarily occur with Ma's composition since it corresponds to the here claimed composition as explained previously. Further, the claim 10 feature of additional de-icing using less fluid would be practiced under a variety of circumstances during the process of Ma. For example, this feature would be practiced at the last stage of a single de-icing operation or at a subsequent operation wherein a lesser quantity of de-icing fluid would be used to remove a lesser quantity of ice.

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For the above stated reasons, we additionally sustain the examiner's § 103 rejection of process claims 9 and 10 as being unpatentable over Ma and Konig-Lumer in view of Seaman.

The decision of the examiner 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

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EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
BRADLEY R. GARRIS)	
Administrative Patent Judge)	APPEALS AND
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)	INTERFERENCES
)	
CHUNG K. PAK)	
Administrative Patent Judge)	

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Union Carbide Chemicals
& Plastics Co., Inc.
Law Department - E134
39 Old Ridgebury Road
Danbury, CT 06817-0001