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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/104,396	05/10/2011	Chisomaga Ugochi NWACHUKWU	12117	1135

27752 7590 11/13/2018

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ART UNIT	PAPER NUMBER
1616	

NOTIFICATION DATE	DELIVERY MODE
11/13/2018	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte CHISOMAGA UGOCHI NWACHUKWU
and ALAN EDWARD SHERRY

Appeal 2017-010316
Application 13/104,396[1]
Technology Center 1600

Before DONALD E. ADAMS, ELIZABETH A. LAVIER,
and JOHN E. SCHNEIDER, *Administrative Patent Judges*.

LAVIER, *Administrative Patent Judge*.

DECISION ON APPEAL

Pursuant to 35 U.S.C. § 134(a), Appellants seek review of the Examiner's rejections of claims 1, 11–15, and 17–21. We have jurisdiction under 35 U.S.C. § 6(b). For the reasons set forth below, we REVERSE.

BACKGROUND

The Specification relates to methods for reducing particulates in the air. Spec. 1:4. Claim 1 is illustrative:

> 1. A method for reducing particulates in the air comprising the steps of:

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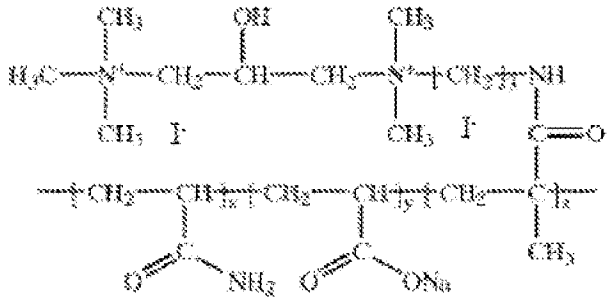
[1] Appellants identify the real party in interest as The Proctor & Gamble Company. Br. 1.

providing a composition, wherein said composition comprises:

I) about 0.001 % to about 0.2%, by weight of said composition, of a zwitterionic polymer, said zwitterionic-polymer is:



with x having a mean value of 0 to 50 mol%, y having a mean value of 10 to 95 mol%, z having a mean value of 3 to 80 mol%, with x+y+z=100%, wherein x represents the mol% of units derived from the acrylamide monomer, y represents the mol % of units derived from the acrylic acid (sodium salt) monomer, and z represents the mol % of units derived from the Diquat monomer, wherein I, which are identical or different, represent counterions;

II) a propellant comprising a compressed gas; and

III) an aqueous carrier, wherein said composition comprises a viscosity of about 1.0 to about 2.5 cps; and

spraying said composition into the air such that said polymer agglomerates particulates in the air when said composition contacts particulates in the air.

Br. 14–15 (Claims Appendix).

REJECTIONS MAINTAINED ON APPEAL

1. Claims 1, 11–15, and 17–21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Sherry,[2] Tippett,[3] Chang,[4] and Valpey.[5] Ans. 2; Final Action 4.

2. Claims 1, 11–15, and 17–21 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Fox,[6] Tippett, Sherry, Hasan,[7] and Shannon.[8] Ans. 5; Final Action 9.

DISCUSSION

A. Rejection 1

Appellants argue, *inter alia*, that none of the cited references, alone or in combination, teaches or suggests spraying a composition "into the air at a level such that the composition agglomerates particulates in the air." Br. 6. We agree. The Examiner's reliance on Tippett as teaching a method of reducing particulates in the air (*see* Final Action 5; *see also* Ans. 2–3) is not sufficiently supported. Specifically, the Examiner fails to cite any express teaching or suggestion in Tippett of spraying Tippett's dust-suppression compositions into the air rather than onto surfaces. The Examiner argues that "common sense dictates" spraying dusty air in a coal mine as well as the

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[2] Sherry et al., US 2007/0110699 A1, published May 17, 2007.
[3] Tippett et al., US 5,215,784, published June 1, 1993.
[4] Chang et al., US 5,948,742, issued Sept. 7, 1999.
[5] Valpey, III et al., US 8,550,171 B2, issued May 14, 2013.
[6] Fox et al., WO 97/28883, published Aug. 14, 1997.
[7] Hasan et al., WO 02/28179 A1, published Apr. 11, 2002.
[8] Shannon, US 2003/0168642 A1, published Sept. 11, 2003.

surfaces, and that it would have been "obvious to spray a dust suppression composition into or over any dust cloud with a trajectory that would further result in saturation of the dust producing material." Ans. 2. But even if it would have been obvious to spray air as well as surfaces, it does not necessarily follow that it would have been obvious to use the same compositions for both applications. To be sure, the Examiner does not rely on Tippett for the components of the composition to be sprayed. *See* Final Action 5–6. But missing from the record (whether in the cited passages of Tippett or the other references) is support for the inference that the ordinarily skilled artisan would reasonably expect compositions formulated to suppress dust on surfaces to likewise succeed in suppressing airborne particulates. Therefore, on this record, we cannot sustain Rejection 1.

B. Rejection 2

In Rejection 2, the Examiner begins with Fox, which expressly teaches methods for precipitating airborne particles. Final Action 9 (citing Fox Abstract, pp. 2, 4). However, as the Examiner acknowledges, Fox teaches "a different mechanism of precipitation" (Ans. 5), insofar as Fox imparts a unipolar charge to the liquid droplets, which is "transferred between the liquid droplets and the airborne particles by contact which causes the airborne particles to precipitate due to mutual repulsion" (Fox Abstract). In the Examiner's view, "the basic premise of the methods is the same" (Ans. 5), but the mechanism matters. It is not clear from the record why Fox's teaching of using charged particles would motivate or otherwise guide the ordinarily skilled artisan in developing a polymer-based composition for agglomerating particulates. *See* Br. 11. As with Rejection

1, the Examiner relies on Tippett as teaching a method for spraying a liquid formulation in the air to precipitate particulates. *See* Ans. 6. And as with Rejection 1, we find the Examiner's analysis leans too heavily on inferences drawn from Tippett rather than Tippett itself. Accordingly, we cannot sustain Rejection 2 on this record.

CONCLUSION

The rejections of claims 1, 11–15, and 17–21 are reversed.

REVERSED