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EXAMINER
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CHRISS, JENNIFER A

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* YUNZHANG WANG, DANIEL T. McBRIDE, and  
RANDOLPH S. KOHLMAN

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Appeal 2015-007078  
Application 11/799,629  
Technology Center 1700

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Before KAREN M. HASTINGS, WESLEY B. DERRICK, and  
JEFFREY R. SNAY, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

This is an appeal under 35 U.S.C. § 134 from a final rejection of claims 1–8 under 35 U.S.C. § 103(a) as unpatentable over Otto (US 4,316,92, issued February 23, 1982), and Soane (US 2003/0013369 A1, published January 16, 2003).<sup>1</sup> We have jurisdiction under 35 U.S.C. § 6.

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<sup>1</sup> Milliken & Company is stated to be the real party in interest (Br. 2). While Appellants stated there were no related appeals (*id.*), a terminal disclaimer to obviate a provisional obviousness type double patenting rejection was filed in October 2010 in this case over Serial No. 10/785,445 (Appeal No. 2010-002754; wherein a decision of the Examiner was affirmed in a decision mailed March 3, 2012).

We AFFIRM.

Appellants' invention is best illustrated by independent claim 1, reproduced below:

1. A woven fiber-containing substrate with a first surface and a second surface having integral microscopic surface structures upon at least a portion of at least one of its surfaces, wherein said integral microscopic surface structures have projections substantially normal to the plane of said fiber-containing substrate, said at least one surface comprised of:

(a) portions having a plurality of substantially unbroken fibers comprising surface structures along at least part of the length of said fibers, and wherein said fibers have a Roughness Factor greater than or equal to about 1.10; and

(b) a chemical mixture, said chemical mixture comprising:

(i) a fluorocarbon-containing repellent component,

(ii) a particulate component, and

(iii) a crosslinking component;

wherein said woven fiber-containing substrate exhibits substantially durable water repellency following washing, said water repellency being at least about 5 when tested according to the 3M Water Repellency Test II (May 1992).

Appellants present arguments only for independent claim 1. *See* Appeal Brief, *generally*. Accordingly, we select independent claim 1 as representative of the claimed subject matter before us on appeal and dependent claims 2–8 stand or fall with claim 1.

#### OPINION

We have reviewed each of Appellants' arguments for patentability. However, we are in agreement with the Examiner that the subject matter of representative claim 1 is unpatentable. Accordingly, we sustain the Examiner's prior art rejection for the reasons explained in the Answer, and we add the following primarily for emphasis.

Appellants principally argue that Otto teaches away because its (polyester) fabric is rendered more “cotton-like” (i.e. hydrophilic) which is in direct contrast to the invention which is water repellent (hydrophobic) (Br. 3-5). These arguments are not persuasive of error in the Examiner’s rejection. As the Examiner aptly points out, Otto merely desires a softer cotton-like finish, and there is no evidence that abrading, for example, a polyester fabric as encompassed by Otto, would convert it from hydrophobic to hydrophilic (Ans. 6). Appellants have also not explained why the ordinary artisan would not have possessed the requisite skills to modify Otto’s fabric to be water repellent, as needed. Indeed, Appellants admit that repellent fluorocarbons for treating textile fabrics are commercially available (Spec. ¶ 30). An improvement in the art is obvious if “it is likely the product not of innovation but of ordinary skill and common sense.” *KSR Int’l. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007). *See also, Perfect Web Technologies, Inc. v. InfoUSA, Inc.*, 587 F.3d 1324, 1329 (Fed. Cir. 2009) (“holding] that while an analysis of obviousness always depends on evidence that supports the required Graham factual findings, it also may include recourse to logic, judgment, and common sense available to the person of ordinary skill that do not necessarily require explication in any reference or expert opinion.”).

Appellants do not dispute that Soane uses a chemical mixture comprising the three listed components in claim 1 for its “textile reactive nanoparticles” (Soane Abstract; Br. *generally*). Rather, Appellants contend that “there is no plausible rationale” to combine the references (Br. 6) and that the combination would render the references inoperable (Br. 6). These arguments are not persuasive. “For obviousness under § 103, all that is required is a reasonable expectation of success.” *In re O’Farrell*, 853 F.2d

894, 903-04 (Fed. Cir. 1988). As the Examiner points out, both references are directed to fabric treatments (Ans. 7). Appellants have not convincingly shown it was unreasonable for the Examiner to find that Otto reasonably appears to disclose a fabric with portions having a plurality of substantially unbroken fibers, with a Roughness Factor as claimed, and to then conclude that one of ordinary skill in the art would have been motivated to provide a chemical mixture comprising the three listed components in claim 1 as exemplified in Soane to a fabric as exemplified in Otto for the stated benefits of each as set out in the applied prior art.

Appellants also argue that the applied prior art would not inherently possess the Roughness factor or structure size (Br. 6). We are unpersuaded by this argument for the reasons presented by the Examiner (Ans. 7–9). It is well settled that when a claimed product reasonably appears to be substantially the same as a product disclosed by the prior art, the burden is on the applicant to prove that the prior art product does not necessarily or inherently possess characteristics attributed to the claimed product, and that it is of no moment whether the rejection is based on § 102 or § 103 since the burden the applicant must overcome is the same. *In re Spada*, 911 F.2d 705, 708 (Fed Cir. 1990); *In re Best*, 562 F.2d 1252, 1255 (CCPA 1977).

In this case, Otto discloses mechanical face finishing, for example, a polyester fabric, with abrasive sanding using a grit size of 600 which overlaps Appellants' disclosed method of mechanical face-finishing, for example, a polyester fabric, via abrasive sanding using a grit size of about 600 to about 1200 grit (Spec. 17:15-20; Otto col. 8, ll. 18-25; Ans. 8). That is, Appellants' claimed fabric reasonably appears to be substantially the same as the fabric of the Otto/Soane in the mechanical finishing thereof.

Accordingly, the burden is properly shifted to Appellants to demonstrate that the claimed fabric differs from the fabric of the Otto/Soane prior art.

However, Appellants have not proffered evidence showing any structural difference between their fabric roughness factor and the one of the prior art.<sup>2</sup>

Likewise, Appellants have not provided any persuasive technical rationale or evidence to rebut the Examiner's reasonable position that Otto's fabric and the resultant Otto/Soane fabric would possess portions "having substantially unbroken fibers" (see, e.g., Ans. 7, 8).

Accordingly, we affirm the Examiner's prior art rejection of claims 1–8 under 35 U.S.C. § 103(a) for the reasons presented by the Examiner and given above.

#### ORDER

The Examiner's prior art rejection of claims 1–8 under 35 U.S.C. § 103(a) is affirmed.

#### TIME PERIOD

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1).

#### AFFIRMED

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<sup>2</sup> It also appears that Appellants are in the best position to provide such evidence as Otto shares a common assignee with the present case on appeal (that is, Milliken Research Corporation, now Milliken & Company).