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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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*Ex parte* EVON L. CROOKS, BALAGER ADEME,  
and CALVIN W. HENDERSON

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Appeal 2015-004225  
Application 13/398,449  
Technology Center 1700

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Before TERRY J. OWENS, MARK NAGUMO, and JULIA HEANEY,  
*Administrative Patent Judges.*

OWENS, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

The Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's rejection of claims 1–28. We have jurisdiction under 35 U.S.C. § 6(b).

*The Invention*

The Appellants claim a smoking article filter element-forming method and apparatus, a smoking article filter element and a tobacco product comprising the filter element. Claim 1 is illustrative:

1. A method for filter element forming, comprising:  
spreading a tow including a plurality of fibers of a filter material to define a bloomed tow having the fibers arranged in a flattened configuration;

ultrasonically vibrating the fibers of the filter material defining the bloomed tow to heat and fuse the fibers at a plurality of discrete locations and form a bonded bloomed tow having the fibers arranged in the flattened configuration; and forming the bonded bloomed tow into a filter element for a smoking article by shaping the bonded bloomed tow having the fibers arranged in the flattened configuration into a cylindrical rod.

*The References*

Berger	US 3,847,064	Nov. 12, 1974
Harris	US 4,435,239	Mar. 6, 1984
Cahill	US 5,998,500	Dec. 7, 1999
Marcus	US 6,053,999	Apr. 25, 2000
Campbell	US 2003/188819 A1	Oct. 9, 2003
Hutchens	US 2009/0288669 A1	Nov. 26, 2009
Marshall	US 2011/0094526 A1	Apr. 28, 2011
Reemtsma (as translated)	DE 1,294,866 B	May 8, 1969

*The Rejections*

The claims stand rejected under 35 U.S.C. § 103 as follows: claims 1, 2, 5, 6, 8–10, 14–18, and 22–27 over Harris in view of Berger, Reemtsma, and Marcus, claims 3, 4, 11, 12, 19, and 20 over Harris in view of Berger, Reemtsma, Marcus, and Marshall, claims 7 and 28 over Harris in view of Berger, Reemtsma, Marcus, and Campbell, claim 13 over Harris in view of Berger, Reemtsma, Marcus, and Cahill, and claim 21 over Harris in view of Berger, Reemtsma, Marcus, and Hutchens.

OPINION

We affirm the rejections.

The Appellants make essentially the same arguments with respect to each independent claim (1, 10, 16, and 23) and do not separately argue the dependent claims (App. Br. 11–34). We therefore limit our discussion to

one claim, i.e., claim 1. Claims 2–28 stand or fall with that claim.

*See* 37 C.F.R. § 41.37(c)(1)(iv) (2012).

Harris teaches that in a prior art semi-tension process, after a smoking article filter tow has been bloomed, one side of it generally is sprayed with plasticizer to ultimately bond the tow's filaments to one another to produce a firm rigid structure that will not soften or collapse during smoking (col. 1, ll. 48–55). Harris forms a flat, wide, low density bloomed tow and then uniformly applies a plasticizer to both of its sides and through it across its width (col. 2, l. 66 – col. 3, l. 1).

Reemtsma uses ultrasonic waves to mechanically shift against each other a smoking article tow strand's filaments which lie next to one another to bond the filaments at their contact points uniformly across the strand's cross section to achieve tow mechanical strength without the filaments having to be cemented to one another (which would adversely affect the drawing channels for smoke) (pp. 3–4).

Marcus spreads a tow of fibers (used to make bedding, furniture, apparel article, etc. fiberfill) to form a flat web and uses ultrasonic energy to bond the spread fibers “effectively using as small a section of the fibers as reasonably possible and damaging as little as possible of the bulk of the fiber sections adjacent to the bonding area, to maximize bulk” (col. 1, ll. 12–25; col. 3, ll. 9–13; col. 4, ll. 56–60; col. 5, l. 64 – col. 6, l. 5; col. 6, ll. 33–39; col. 7, ll. 38–43).

The Appellants argue that Harris's tow spreading is relevant only to improving plasticizer penetration and that Marcus would not have led one of ordinary skill in the art to spread Reemtsma's strands' filaments because

doing so undesirably would require an additional step and/or additional specialized equipment (App. Br. 13–15; Reply Br. 2–3).

“A person of ordinary skill is also a person of ordinary creativity, not an automaton.” *KSR Int’l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007). In making an obviousness determination one “can take account of the inferences and creative steps that a person of ordinary skill in the art would employ.” *KSR*, 550 U.S. at 418.

Reemtsma’s ultrasonic energy bonds filaments which lie next to one another in a strand (p. 4). Marcus would have led one of ordinary skill in the art, through no more than ordinary creativity, to spread Reemtsma’s filaments to achieve Marcus’s disclosed benefit of bonding spread filaments, i.e., effective bonding of the desired percentage of filaments at discrete locations with minimal damage to adjacent filaments (col. 3, ll. 9–13, 38–44; col. 4, ll. 58–60; col. 7, ll. 38–43). Reemtsma and Marcus would have led one of ordinary skill in the art, through no more than ordinary creativity, to ultrasonically bond Harris’s spread tow fibers at discrete locations instead of using Harris’s uniformly applied plasticizer because doing so would effectively bond the fibers without cementing the fibers to one another such that the smoke channels are adversely affected (Reemtsma pp. 3–4; Marcus col. 3, ll. 9–13; col. 5, l. 64 – col.6, l. 5; col. 7, ll. 38–43; Harris col. 2, l. 65 – col. 3, l. 1).

Thus, we are not persuaded of reversible error in the rejections.

#### DECISION/ORDER

The rejections under 35 U.S.C. § 103 of claims 1, 2, 5, 6, 8–10, 14–18, and 22–27 over Harris in view of Berger, Reemtsma, and Marcus, claims 3, 4, 11, 12, 19, and 20 over Harris in view of Berger, Reemtsma,

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Marcus, and Marshall, claims 7 and 28 over Harris in view of Berger,  
Reemtsma, Marcus, and Campbell, claim 13 over Harris in view of Berger,  
Reemtsma, Marcus, and Cahill, and claim 21 over Harris in view of Berger,  
Reemtsma, Marcus, and Hutchens are affirmed.

It is ordered that the Examiner's decision is affirmed.

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

AFFIRMED