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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GOFFREY DAVID HIETPAS, DAVID A. PRICE SR., and
STEVEN WAYNE SMITH

Appeal 2012-000635
Application 11/238,468
Technology Center 1700

Before PETER F. KRATZ, JEFFREY T. SMITH, and
LINDA M. GAUDETTE, *Administrative Patent Judges*.

GAUDETTE, *Administrative Patent Judge*.

DECISION ON APPEAL

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's decision¹ finally rejecting claims 1-3, 5-7, 9-15, 17- 46.² We have jurisdiction under 35 U.S.C. § 6(b).

The invention is directed to a polyester bicomponent staple fiber having good stretch and recovery, good wicking, and good cardability. (*See Spec.*³ [0001-0002].) Claim 1 is representative of the invention, and is reproduced below from the Claims Appendix to the Appeal Brief (emphasis added):

1. A polyester bicomponent staple fiber comprising poly(trimethylene terephthalate) and at least one polymer selected from the group consisting of poly(ethylene terephthalate), poly(trimethylene terephthalate), and poly(tetramethylene terephthalate) or a combination of such members, said bicomponent staple fiber having:

- a) *a scalloped oval cross-section shape* having an aspect ratio a:b of about 2:1 to about 5: 1 wherein 'a' is a fiber cross-section major axis length and 'b' is a fiber cross-section minor axis length;
- b) *a polymer interface substantially perpendicular to the major axis*;
- c) side-by-side cross-section configuration;
- d) *a plurality of longitudinal grooves* selected from the group consisting of four grooves, six grooves and eight grooves; and
- e) a groove ratio of about 1.05: 1 to about 1.9: 1.

Of the appealed claims, claims 11 and 31 are also independent, and include at least the limitations shown in italics.

The Examiner maintains the final rejections under 35 U.S.C. §103(a) of:

¹ Final Office Action mailed Jun. 23, 2010.

² Appeal Brief filed Mar. 24, 2011 ("App. Br."), 2.

³ Specification filed Sep. 29, 2005.

(1) claims 1-3, 5-7, 9-11, 27-31, and 46 as unpatentable over Hartzog (US 6,656,586 B2) in view of Hietpas (US 7,195,819 B2, issued Mar. 27, 2007) (Ans. 5-7) or JP 433 (JP 2002-129433, published May 9, 2002) (Ans. 7-9); and

(2) claims 12-15, 17-26, and 32-45 as unpatentable over Hartzog in view of JP 433, and further in view of US 2003/0159423 A1 (published Aug. 28, 2003) (Ans. 9).⁴

We decide the following issue in favor of Appellants and, therefore, reverse the Examiner's decision to reject claims 1-3, 5-7, 9-15, 17- 46 under 35 U.S.C. §103(a): does a preponderance of the evidence support the Examiner's finding that one of ordinary skill in the art at the time of the invention would have been motivated to change the parallel polymer interface of Hartzog's bicomponent fiber to a perpendicular interface as recited in independent claims 1, 11, and 31?

Hartzog discloses "[p]olyester bicomponent fibers having a scalloped oval cross-section" (Spec. [0002]), but utilizes a configuration in which the polymer boundary, i.e., the line of contact between the polymers, is "*substantially parallel* to the cross-section long axis of the fiber." (Hartzog col. 3, ll. 27-31 (emphasis added).) According to Appellants' Specification, Hartzog's fiber provides poor quality yarn when combined with cotton staple. (Spec. [0002].)

The Examiner determines it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed the polymer interface in Hartzog's fiber *substantially perpendicular* to the major axis, relying on Hietpas and JP 433 to establish that in forming bicomponent polyester fibers, a

⁴ Both Appellants and the Examiner erroneously include cancelled claims 8 and 16 as subject to the rejections under 35 U.S.C. §103(a). (See Examiner's Answer mailed Jun. 7, 2011 ("Ans."), 5, 7, 9; App. Br. 4, 6.)

perpendicular polymer interface was a known alternative configuration to Hartzog's parallel interface. (*See* Ans. 7-8, 10-11.)

Hietpas discloses a bicomponent fiber having "a polymer interface substantially perpendicular to the major axis." (Hietpas Abstract.) According to Hietpas, the inventive fiber "can be used to make a spun yarn of very high quality (low thin and thick regions, low neps, low CV, and overall excellent quality) while retaining high boil-off shrinkage." (*Id.* at col. 15.) Hietpas discloses these properties are achieved where the fiber has an "oval cross-section shape [that] is *substantially free of grooves* in the cross-section periphery." (*Id.* at col. 3, ll. 45-46 (emphasis added).) Hietpas specifically indicates that a scalloped oval shape has grooves and, therefore, would be an unacceptable fiber cross-section shape. (*Id.* at ll. 48-50.)

The Examiner relies on the figures in the English Abstract of JP 433 which illustrate "the polymer interface between the two components [of polyester bicomponent fibers] can be located perpendicular to the major axis of the fibers." (Ans. 8.) The Examiner finds "the major to minor axis in figures b, d and e . . . *appears to be* at least 2 to 1." (*Id.* at 11 (emphasis added).)

Appellants contend the evidence of record fails to support a finding that one of ordinary skill in the art would have been motivated to modify Hartzog's polymer interface in the manner proposed by the Examiner. Appellants argue Hietpas fails to disclose or suggest that a perpendicular interface is equivalent to a parallel interface and, in fact, teaches away from using a polymer interface which is substantially perpendicular to the major axis where the fiber has a cross-section with grooves, as in Appellants' claimed invention. (Reply Br.⁵ 3-4.) With respect to JP 433, Appellants argue the Examiner has failed to explain how one of ordinary

⁵ Reply Brief filed Aug. 8, 2011.

skill in the art would ascertain from the figures alone that a perpendicular interface would be equivalent to a parallel interface in bicomponent fibers of the type disclosed by Hartzog. (Reply Br. 6-7.) In this regard, we also note Appellants disagree with the Examiner's finding that JP 433 discloses the same aspect ratio used in Hartzog, maintaining the aspect ratio illustrated in the JP 433 figures is 1:1. (App. Br. 6.)

An examiner bears the initial burden of presenting a prima facie case of obviousness. *See In re Glaug*, 283 F.3d 1335, 1338 (Fed. Cir. 2002). “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006) (*quoted with approval in KSR Int'l. Co. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007)). *See also, In re Vaidyanathan*, 381 Fed. Appx. 985, 994 (Fed. Cir. 2010) (non-precedential) (“*KSR* did not free the PTO's examination process from explaining its reasoning. In making an obviousness rejection, the examiner should not rely on conclusory statements that a particular feature of the invention would have been obvious or was well known. Instead, the examiner should elaborate, discussing the evidence or reasoning that leads the examiner to such a conclusion.”). “[R]eferences that teach away cannot serve to create a prima facie case of obviousness.” *McGinley v. Franklin Sports, Inc.* 262 F.3d 1339, 1354 (Fed. Cir. 2001) (citing *In re Gurley*, 27 F.3d 551, 553 (Fed. Cir. 1994) (noting that “a reference will teach away if it suggests that the line of development flowing from the reference's disclosure is unlikely to be productive of the result sought”)).

Appellants have persuasively argued that a preponderance of the evidence fails to support the Examiner's finding that one of ordinary skill in the art at the

time of the invention would have been motivated to change the parallel polymer interface of Hartzog's bicomponent fiber to a perpendicular interface as required by the appealed claims. We agree that Hietpas teaches away from using a polymer interface which is substantially perpendicular to the major axis where the fiber has a cross-section with grooves, i.e., the fiber cross-section used by Hartzog. We further agree the evidence of record is insufficient to support a finding that one of ordinary skill in the art would have understood from the JP 433 figures that a perpendicular interface would be equivalent to a parallel interface in bicomponent fibers of the type disclosed by Hartzog.

Accordingly, we REVERSE the rejections of claims 1-3, 5-7, 9-15, 17- 46 under 35 U.S.C. §103(a).

The Examiner also maintains the final rejections of claims 1-3, 5-7, 9-15, 17- 46⁶ on the ground of nonstatutory obviousness-type double patenting as unpatentable over claims 1-12 of US 7,310,933 and claims 1-4 of US 7,195,819. (Ans. 5.) Appellants do not request review of the double patenting rejections (*see generally*, App. Br.), stating they “will consider timely filing a terminal disclaimer” “upon a finding of allowable subject matter” (Reply Br. 2). On this appeal record, we decline to reach the merits of these rejections.

REVERSED

kmm

⁶ Both Appellants and the Examiner erroneously include cancelled claims 8 and 16 as subject to the double patenting rejections. (*See* Ans. 5; Reply Br. 2.)