

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

Paper No. 18

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ROBERT S. CARDWELL,
BRIAN W.S. KOLTHAMMER and DEEPAK R. PARIKH

Appeal No. 2000-1551
Application 08/858,664

ON BRIEF

Before WARREN, LIEBERMAN and KRATZ, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

Decision on Appeal and Opinion

We have carefully considered the record in this appeal under 35 U.S.C. § 134, including the opposing views of the examiner, in the answer, and appellants, in the brief and reply brief, and based on our review, find that we cannot sustain the grounds of rejections of appealed claims 16 through 20¹ under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) as being obvious over Stehling et al. (Stehling)² or Ewen et al. (Ewen), or the combined teachings of these references; and under 35 U.S.C. § 103(a) as being unpatentable over Stehling

¹ See the amendment of August 18, 1999 (Paper No. 11) in which claims 16 through 18, and thus also claims 19 and 20, were amended and claims 1 through 15 and 21 through 24 were canceled. Thus, claims 16 through 20 are all of the claims in the application.

² Stehling is referred to in the answer as “WO ‘414.”

or Ewen as previously applied taken with LaPointe et al. (LaPointe), Stevens et al. (Stevens '802), and Stevens et al. (Stevens '815),³ further in view of Kaminsky et al., Speed et al. and Gurevitch et al.⁴

In order to consider the examiner's application of the applied prior art to the appealed claims, we must first interpret the claims in light of the written description in appellants' specification as it would be interpreted by one of ordinary skill in this art. *See generally, In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000); *In re Morris*, 127 F.3d 1048, 1054-55, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997); *In re Zletz*, 893 F.2d 319, 321-22, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). It is clear that appealed claims 16 through 18 are drawn in product-by-process format to an interpolymer product which is a blend of two homogeneous ethylene/alpha-olefin interpolymers, wherein the specified process limitations including the use of two activated constrained geometry (CG) catalyst compositions containing an activating cocatalyst and having different reactivity, to prepare respective homogeneous interpolymer ingredients having the specified properties, and the step of combining the interpolymer ingredients to obtain a interpolymer product having the specified properties, must be considered in determining the scope of the claimed interpolymer product. *See In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985); *In re Wertheim*, 541 F.2d 257, 271, 191 USPQ 90, 103-04 (CCPA 1976); *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

Thus, while the appealed claims encompass an interpolymer product that is prepared by any process, the specified process conditions and properties of the ingredient homogeneous interpolymers and of the interpolymer product nonetheless define the claimed product. We note in this respect that appellants set forth in the written description of their specification that "homogeneous interpolymers are those in which the comonomer is randomly distributed within a given interpolymer molecule and wherein substantially all of the interpolymer molecules have

³ Stevens '815 is referred to in the answer as "EP '815."

⁴ Answer, pages 3-10. The examiner withdrew Stricklen from each of the grounds of rejection (answer, page 2). A discussion of Kaminsky et al., Speed et al. and Gurevitch et al. is not necessary to our decision.

the same ethylene/comonomer ratio within that interpolmer” and “[t]he term “interpolymer” is used herein to indicate a copolymer, or a terpolymer, or the like. That is, at least one other comonomer is polymerized with ethylene to make the interpolmer” (page 4, line 33, to page 4, line 5, and page 5, lines 20-23). *See Morris, supra; Zletz, supra.*

Considering first the ground of rejection under § 102(b) or § 103(a) over Stehling or Ewen, or the combined teachings of these references, we must agree with appellants that the examiner has not made out a *prima facie* case of anticipation, *see, e.g., In re Spada*, 911 F.2d 705, 707-08, 15 USPQ2d 1655, 1657 (Fed. Cir. 1990), or of obviousness, *see, e.g., Thorpe, supra*, of these appealed product-by-process claims because he has not established that the blends of Stehling and Ewen would reasonably appear to be identical or substantially identical to the interpolmer product specified in these appealed claims. *See generally, Spada*, 911 F.2d at 708-09, 15 USPQ2d at 1657-58 (“The Board held that the compositions claimed by Spada ‘appear to be identical’ to those described by Smith. While Spada criticizes the usage of the word ‘appear’, we think that it was reasonable for the PTO to infer that the polymerization by both Smith and Spada of identical monomers, employing the same or similar polymerization techniques, would produce polymers having the identical composition.”); *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986); *In re Thorpe*, 777 F.2d 695, 697, 227 USPQ 964, 966 (Fed. Cir. 1985); *In re Best*, 562 F.2d 1252, 1254-56, 195 USPQ 430, 432-34 (CCPA 1977). The examiner has not shown that either Stehling or Ewen teach or suggest an interpolmer product having the specified properties which is prepared from combining at least two homogeneous ethylene/alpha-olefin interpolymers having the specified properties, including melting points, prepared by two different catalyst compositions that would provide the same comonomer distribution and ethylene/comonomer ratio to the interpolymers that is imparted by two specified CG catalyst compositions that have different reactivity.

Indeed, Stehling merely teaches that blends may be prepared from two different catalysts at lines 31-32 of page 18, and exemplifies blends of containing interpolymers that are each prepared from a single cyclopentadienyl metallocene catalyst activated with a cocatalyst, while Ewen discloses that two metallocene catalysts of different reactivity activated with a cocatalyst are used to prepare blends containing polyethylene, including linear low density polyethylene,

and a copolyethylene-alpha-olefin interpolymer. However, the examiner has not established that the metallocene catalysts of either or both of these references produce the same interpolymers that would result from two specified CG catalyst compositions that have different reactivity. Thus, it does not appear from this record that the claimed products are identical or substantially identical to those of Stehling and Ewen. Accordingly, we reverse this ground of rejection.

We further must agree with appellants that the examiner has not made out a *prima facie* case of obviousness of the claimed products under § 103(a) by combining the teachings of CG catalyst compositions in Stevens '815, Stevens '802 and LaPointe with the processes taught by Stehling and by Ewen (answer, pages 9-10). The examiner alleges that the metallocene catalysts of Stehling and Ewen and the CG catalysts of the additional references are similar "single-site catalysts" which produce similar results and thus one of ordinary skill in the art would have used the CG catalysts in the processes of Ewen and Stehling with the expectation of similar results. However, the examiner has not established on the record that the same or similar polymers are in fact obtained with the two types of catalysts, and indeed, has not rebutted appellants' contentions that the results are different.

Thus, on this record, there is no evidence that one of ordinary skill in this art would have modified the processes of Stehling and of Ewen by using the CG catalysts of Stevens '815, Stevens '802 and LaPointe in the expectation of obtaining the same products produced with the metallocene catalysts taught therein. Even if there was, we find that the examiner has not identified any teaching in this combination of references that would have led one of ordinary skill in this art to the specifically claimed interpolymer product of the appealed claims from the very general disclosure of blends in Stehling and in Ewen. *See In re Jones*, 958 F.2d 347, 349-51, 21 USPQ2d 1941, 1943-44 (Fed. Cir. 1992) ("Conspicuously missing from this record is any *evidence*, other than the PTO's speculation (if it be called evidence) that one of ordinary skill in the herbicidal art would have been motivated to make the modifications of the prior art salts necessary to arrive at the claimed . . . salt.").

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