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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte MARK RICHARD PARSONS

Appeal 2015-005271
Application 13/347,055
Technology Center 1700

Before GEORGE C. BEST, BRIAN D. RANGE, and LILAN REN,
Administrative Patent Judges.

REN, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellant¹ appeals under 35 U.S.C. § 134(a) from a Rejection² of claims 1–22. We have jurisdiction under 35 U.S.C. § 6(b).

We affirm for reasons well-stated by the Examiner.

¹ The real party in interest is identified as BASF SE (Appeal Brief, filed January 8, 2015 (“App. Br.”), 2.)

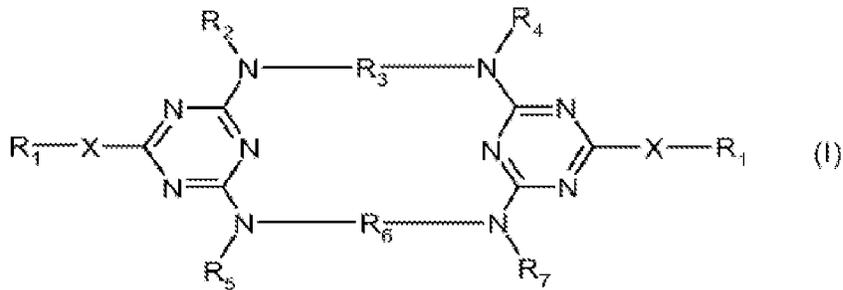
² Final Office Action mailed June 26, 2014 (“Final Rejection”; cited as “Final Act.”).

CLAIMED SUBJECT MATTER

The claims are directed to “methods of flame retarding polyethylene, which polyethylene is processed at high temperature.” (Spec. 1 ¶ 2.)³ “The final polyethylene products are, for instance, polyethylene hollow articles prepared by a rotomolding process or are polyethylene films or multilayer films.” (*Id.*)

Claim 1, reproduced below, is illustrative of the claimed subject matter:

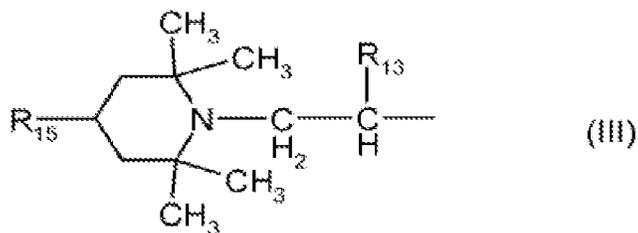
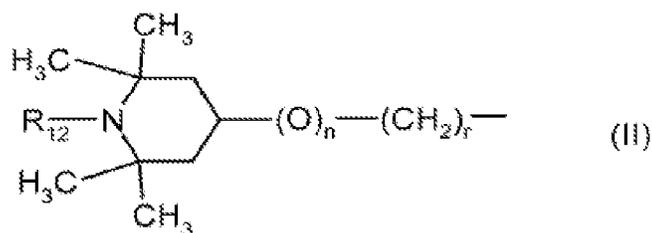
1. A process for the preparation of a stabilized and flame retardant polyethylene article, which process comprises
adding from 0.2% to about 5% by weight of one or more macrocyclic hindered amine light stabilizers and from about 0.2% to about 20% by weight of one or more brominated flame retardants to a polyethylene substrate, based on the weight of the polyethylene substrate and
subjecting the resultant polyethylene mixture to a temperature of 270°C or above,
where the hindered amine light stabilizers are of formula



where

R₁ is hydrogen, C₁-C₁₈alkyl, C₃-C₁₈alkenyl, C₅-C₁₈cycloalkyl, C₆-C₁₈aryl, C₇-C₉aralkyl or -R₈-Y, or R₁ is a group of formula II or III

³ Application 13/347,055, *Methods of Flame Retarding Polyethylene Processed at High Temperatures*, filed January 10, 2012. We refer to the “055 Specification,” which we cite as “Spec.”



- n is 0 or 1,
 r is 0, 1, 2 or 3,
 X is -O-, -S-, or -NR₁₆-,
 XR₁ as a whole may also be chlorine or morpholino,
 pyrrolidin-1-yl, piperidin-1-yl or hexahydroazepin-1-yl,
 R₂, R₄, R₅ and R₇ independently are hydrogen, C₁-
 C₁₂alkyl, C₂-C₆hydroxyalkyl, C₃-C₁₂alkenyl, C₅-C₁₂cycloalkyl,
 C₆-C₁₈aryl, C₇-C₉aralkyl or a group of formula II,
 R₃ and R₆ independently are C₂-C₁₂alkylene, C₄-
 C₁₂iminodialkylene or oxodialkylene, C₅-C₁₂cycloalkylene, C₆-
 C₁₂arylene or C₇-C₁₂aralkylene,
 R₈ is C₂-C₆alkylene,
 Y is -O-R₉ or -NR₁₀R₁₁,
 R₉ is hydrogen of C₁-C₁₈alkyl,
 R₁₀ and R₁₁ are independently C₁-C₆alkyl, 2,2,6,6-
 tetramethylpiperid-4-yl or 1,2,2,6,6-pentamethylpiperid-4-yl,
 R₁₂ is hydrogen, C₁-C₁₂alkyl, C₃-C₁₂alkenyl or C₇-
 C₉aralkyl,
 R₁₃ is hydrogen, methyl, ethyl or phenyl,
 R₁₅ is hydrogen, C₁-C₈alkoxy, C₃-C₈alkenyloxy or
 benzyloxy and
 R₁₆ is defined as for R₁ and

where at least one of the groups R_1 , R_2 , R_4 , R_5 and R_7 is a group of formula 11.

(Claim Appendix, App. Br. 19–21.)

REFERENCES

The Examiner relies upon the following references in rejecting the claims⁴ on appeal:

Neubauer	US 5,728,335	Mar. 17, 1998
Braig	US 7,332,105 B2	Feb. 19, 2008
GB '813	Great Britain 1,192,813	Oct. 6, 1967

REJECTIONS

Claims 1–13 and 19–22 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Neubauer, Braig, and GB '813. (Ans. 2.)

Claims 14–18 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Braig and GB '813. (Ans. 7.)

OPINION

Findings of fact throughout this Opinion are supported by a preponderance of the evidence of record.

*Claim 1*⁵

Appellant does not refute the Examiner's findings with regard to the combined prior art teachings. (App. Br. 14–15.) Appellant, however, argues

⁴ A rejection based on Neubauer and a reference known as Henbest has been withdrawn and is therefore not before us. (Examiner's Answer mailed March 23, 2015 ("Ans."), 10.)

⁵ Consistent with the provisions of 37 C.F.R. § 41.37(c)(1)(iv) (2013), claims 2–13 and 19–22 stand or fall with claim 1, as Appellant makes no distinct arguments beyond the arguments regarding claim 1. (App. Br. 6.)

that embodiments in the '055 Specification show unexpected results over the prior art. (*Id.* at 16.) Specifically, Appellant states that while the prior art formulations shown in the '055 Specification result in products that “are all dark brown in color, all have rough surface texture and all have noticeable odor,” the product from exemplary formulations 1 and 2 “is white in color, has a smooth surface texture and has very little or little odor.” (*Id.*)

The Examiner responds that claim 1, an open ended claim, does not preclude those formulations that may result in products with the dark color and other attributes mentioned as unfavorable by Appellant. (Ans. 10–11.)

The Examiner also responds that the comparison of formulations in the '055 Specification is not commensurate in scope with claim 1. (*Id.* at 11.) Whereas claim 1 recites “one or more brominated flame retardants” which could encompass a large amount of specific compounds, the exemplary formulations relied on by Appellant are limited to two specific brominated flame retardant compounds. (*Id.*)

“The evidence presented to rebut a *prima facie* case of obviousness must be commensurate in scope with the claims to which it pertains.” *In re Dill*, 604 F.2d 1356, 1361 (CCPA 1979). “[C]ommensurate in scope” means that the evidence provides a reasonable basis for concluding that the untested embodiments encompassed by the claims would behave in the same manner as the tested embodiments. *See In re Lindner*, 457 F.2d 506, 508 (CCPA 1972).

Here, Appellant does not respond to the Examiner’s reasoning that claim 1 is not limited to the two brominated flame retardant compounds analyzed in the '055 Specification. (*See, e.g.*, Reply Br. 1–3.)⁶ Appellant

⁶ Reply Brief failed April 15, 2015 (“Reply Br.”).

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does not respond to the Examiner's reasoning that claim 1 is an open-ended claim which does not exclude the prior art formulations. (*See, e.g., id.*) Appellant does not provide factual evidence, much less a reasonable basis, for concluding that the "brominated flame retardants" recited in claim 1 would exhibit similar behavior as the two analyzed in the '055 Specification. (*See, e.g., id.*)

No reversible error has been identified by Appellant.

Claims 14–18

Appellant argues that the rejection of claims 14–18 is in error by repeating the assertion that the results are unexpected based on the same comparison discussed *supra*. (App. Br. 17.)

Although claims 14–18 recite compositions that are narrower than those recited in the process of claim 1, Appellant has not identified evidence of record that establishes the unexpected nature of the differences (if any) between the claimed invention and the prior art. Superiority alone is not sufficient to show that the result is unexpected. *Pfizer, Inc. v. Apotex, Inc.*, 480 F.3d 1348, 1371 (Fed. Cir. 2007) (“[A]ny superior property must be *unexpected* to be considered as evidence of non-obviousness.”).

No reversible error has been identified with regard to the rejection of claims 14–18.

DECISION

The Examiner's rejections of claims 1–22 are affirmed.

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

AFFIRMED