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BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DONNA LYNN VISIOLI
and KEVIN PATRICK MCALLISTER

Appeal 2011-009904
Application 12/327,138
Technology Center 1700

Before ROMULO H. DELMENDO, GEORGE C. BEST, and GRACE KARAFFA OBERMANN, *Administrative Patent Judges*.

BEST, *Administrative Patent Judge*.

DECISION ON APPEAL

On August 6, 2010, the Examiner finally rejected claims 1-20 of Application 12/327,138 under 35 U.S.C. § 103(a) as obvious. Appellants seek reversal of these rejections pursuant to 35 U.S.C. § 134(a). We have jurisdiction under 35 U.S.C. § 6(b).

For the reasons set forth below, we AFFIRM.

BACKGROUND

The '138 application describes gas and moisture permeable compositions and their uses (Spec. 1). Such materials are alleged to be useful in packaging perishable foods which respire (*id.* at 1-2).

Claim 1 is the only independent claim in the '138 application and is reproduced below, with the disputed claim limitations italicized:

> 1. An article comprising a film or sheet wherein
>
> the film or sheet comprises or is produced from a composition;
>
> *the film or sheet has an oxygen permeation value of greater than 8000 cc-mil/m^2-day*;
>
> the composition comprises or is produced from an ethylene-containing polymer and a potassium-containing composition;
>
> > the ethylene-containing polymer is selected from the group consisting of at least one ethylene copolymer, at least one ethylene acid copolymer, at least one ionomer of the ethylene acid copolymer, or combinations of two or more thereof;
> >
> > > the ethylene copolymer comprises copolymerized or repeat units derived from ethylene and a monomer selected from the group consisting of vinyl acetate, alkyl acrylate, alkyl methacrylate, and combinations of two or more thereof;
> > >
> > > the ethylene acid copolymer comprises copolymerized or repeat units derived from ethylene and acrylic acid, methacrylic acid, or combinations thereof; and
> > >
> > > *the ionomer is neutralized by a cation other than potassium*; and
> >
> > the potassium-containing composition comprises a polar copolymer, a polyol, and optionally a polar compound;

> the polar copolymer includes an ethylene acid copolymer, an ionomer of the ethylene acid copolymer, or combinations thereof;
>
> > the ethylene acid copolymer comprises copolymerized or repeat units derived from ethylene, at least one C_{3-8} α,β-ethylenically unsaturated carboxylic acid, and optionally a comonomer;
> >
> > > the comonomer includes alkyl acrylate, alkyl methacrylate, or combinations thereof; the alkyl group has 1 to 8 carbon atoms;
> > >
> > > the units derived from the unsaturated carboxylic acid is from about 3 to about 35 weight %, based on the weight of the ethylene acid copolymer;
>
> the polar compound is selected from the group consisting of aliphatic organic carboxylic acid, salt of the acid, or combinations thereof;
>
> > the acid has fewer than 36 carbon atoms;
>
> greater than 80% of the carboxylic acid moieties of the polar copolymer, or of the polar compound, when present, or of both the ethylene acid copolymer and the polar copolymer, are neutralized by potassium cations, or by a combination of potassium and one or more alkali metal, transition metal, and alkaline earth metal cations in which potassium comprises a preponderance of the cations;
>
> the polyol has at least three hydroxyl moieties; and
>
> the polyol is selected from the group consisting of glycerol, diglycerol, hexanetriol, pentaerythritol, polyglycerol, sorbitol, or combinations of two or more thereof.

(App. Br. 10) (emphasis and some paragraphing added).

REJECTIONS

1 The Examiner finally rejected claims 1-6, 8, and 10-19 under 35 U.S.C. § 103(a) as obvious over WO 2005/113671 A1 ("Chen," published Dec. 1, 2005) (Final Office Action ("FOA") 2 (Aug. 6, 2010)).

2 The Examiner finally rejected claims 7, 9, and 20 under 35 U.S.C. § 103(a) as obvious over Chen in view of U.S. Patent Application Publication No. 2006/0233987 A1 ("Mumpower," Oct. 19, 2006) (FOA 8).

DISCUSSION

Rejection 1. Appellants only present arguments for reversal of this rejection based on the limitations of claim 1. Thus, dependent claims 2-6, 8, and 10-19 stand or fall with claim 1.[1]

Appellants do not argue that Chen fails to describe the potassium-containing composition recited in claim 1. Appellants, however, identify claimed aspects of (1) the ethylene-containing copolymer and (2) the film or sheet that they allege are not described or suggested in Chen (App. Br. 3-7). We address each of these arguments in turn.

First, Appellants argue that Chen does not describe an ionomer of the polyethylene acid copolymer that is neutralized by a cation other than potassium (*id.* at 4). Specifically, Appellants argue that the Examiner's finding that Chen describes such an ionomer is incorrect because

> [i]n the middle of paragraph 6 (page 4) of the Office action, the Office emphasized in bold that Chen discloses addition of an

[1] We will address Appellants' attempt to present separate arguments on behalf of some of these dependent claims later in this opinion.

> ionomer neutralized by potassium. As underlined in appellants' claim 1, appellants specifically require that ionomer is produced by a metal cation other than potassium.

(App. Br. 4).

The cited finding in the FOA is not relevant to the question of whether Chen describes the potassium-free ionomer. It is the Examiner's finding that Chen describes the potassium-containing ionomer that is a portion of the potassium-containing composition that is set forth in the claim.

The Examiner's finding that Chen does describe the claimed potassium-free ionomer is set forth in paragraph 5 of the FOA:

> *Chen* discloses that the aforementioned overall composition can be modified by adding an **ionomer** of the ethylene + methacrylic acid above (page 3, lines 20-26); wherein the **neutralization** can also be effected by cations other than potassium, such as zinc, sodium, or magnesium (page 3, lines 27-32). This ionomeric component corresponds to applicants' claimed "ionomer of the acid copolymer" in claims 1 and 4.

(FOA 3-4 (emphasis in original); *see also* Ans. 6).

Appellants do not challenge this factual finding. Accordingly, we are not persuaded by this argument.[2]

Second, Appellants assert that Chen does not describe, suggest, or inherently disclose a "film or sheet [that] has an oxygen permeation value

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[2] We also note—but need not rely upon—the fact that the potassium-free ionomer is only one of three alternative types of ethylene-containing copolymers recited in claim 1. Chen also describes a blend of a potassium-containing composition with either an ethylene vinyl acetate copolymer or an ethylene (meth)acrylic acid copolymer (Chen 7:23-8:7). Chen, therefore, describes a blend of a potassium-containing composition with other forms of the ethylene-containing copolymer recited in claim 1. Furthermore, we note that a portion of Chen not cited by the Examiner describes a zinc ionomer that does not contain any potassium (*id.* at 10:31-11:10).

(OPV) of greater than 8000 cc-mil/m^2-day" (App. Br. 4 (emphasis omitted)). In particular, Appellants point out that

> [t]he Office also argued (Office action, pages 5-6, paragraph 9, last two sentences) that the OPV is an inherent property of *the composition.* Appellants agree with the Office if appellants' claims recite that *the composition* has certain OPV. However, appellants' claims recite that the *film or sheet*, not the composition, has certain OPV.

(*Id.* at 4-5 (emphasis in original)). Appellants further note that Chen discloses the use of its composition in monolayer or multilayer structures to impart antifog properties to the structures (*id.* at 5 (quoting Chen 10:3-19)). In particular, Chen describes the combination—e.g., by lamination or coextrusion—of Chen's composition with other permeable materials to form structures that can absorb and transmit oxygen (*id.*). Appellants infer from this portion of Chen's disclosure that Chen's composition "does not have desired oxygen transmission rate to transmit oxygen. That is, Chen [*sic*, Chen's] 'composition' does not inherently have the OPV recited in appellants' claims" (*id.*).

Assuming *arguendo* that Appellants' inference were correct, this argument would still not be persuasive because it is based upon a misinterpretation of claim 1. Claim 1 requires that a film or sheet *comprising* a composition *comprising* a polyethylene-containing copolymer and a potassium-containing composition have the claimed OPV. The two uses of the open transition "comprising" mean that claim 1 reads on the structures described in Chen that include additional permeable material (*see* Chen 10:3-19).

Furthermore, Appellants' inference is not necessarily correct. Chen states that "[t]he organic acid salt modified potassium ionomers of this

invention also exhibit useful gas permeation properties . . . . The enhanced oxygen transmission rate of the compositions of the invention is particularly useful for food packaging applications" (Chen 9:20-26). Appellants' Specification describes the claimed composition as "useful in packaging, especially the packaging of fresh produce" (Spec. 1:7-8).

As the Examiner points out, Chen describes or suggests forming films or sheets from compositions that are comprised of a composition of a polyethylene-containing copolymer and a potassium-containing composition that fall with the scope of claim 1 (Ans. 7-8, 12-14). Because Chen describes structures that are the same or substantially identical to the claimed structure, Chen is presumed to describe films or sheets that have the same properties as the claimed structure.

Appellants point to their Specification as providing evidence that there are compositions that meet all of the limitations of claim 1 except for the claimed OPV (App. Br. 6-7 (citing Spec. Table 2)). Appellants, however, do not provide any guidance as to how to predict whether a particular film or sheet that meets claim 1's compositional requirements will also exceed the claimed OPV threshold. Furthermore, Appellants do not provide any explanation or evidence that a film or sheet that both is made of a material meeting claim 1's compositional requirements and exceeds the claimed OPV threshold is an unexpected or surprising result.

In view of the foregoing, we cannot say that the Examiner erred in finding that Chen describes or suggests forming a film or sheet with the claimed OPV or in concluding that the differences between the films or sheets described in Chen and the claim's films or sheets would have been obvious to a person of ordinary skill in the art at the time of the invention.

Rejection 2. The Examiner rejected claims 7, 9, and 20 as obvious over Chen in view of Mumpower. As can be seen below, claims 7 and 9 are directed to particular multilayer structures.

Claim 7

> 7. The article of claim 4 wherein the film or sheet is a multilayer structure comprising
>
> > (i) at least one layer consisting essentially of the composition; and
> >
> > (ii) at least one additional polymeric layer comprising a metallocene catalyst-produced polyethylene (mPE) or a blend of an mPE having a density of less than 0.91 g/cc and a low density polyethylene.

(App. Br. 11 (Claims App'x)).

Claim 9

> 9. The article of claim 4 wherein the film or sheet is a multilayer structure comprising
>
> > (i) at least one layer consisting essentially of the composition;
> >
> > (ii) at least one layer comprising the ethylene acid copolymer; and
> >
> > (iii) at least one additional polymeric layer comprising a metallocene catalyst-produced polyethylene (mPE) or a blend of an mPE having a density of less than 0.91 g/cc and a low density polyethylene.

(*Id.* at 11-12 (Claims App'x)). Claim 20 depends from claim 9.

Appellants apparently believe that the Examiner relies upon Mumpower for a description of a multilayer structure that includes a layer comprising low density polyethylene. Appellants argue that the rejection of claims 7, 9, and 20 should be reversed: "Ostensibly [*sic*], the Office has not

provided any fact showing that the first layer film [described as VLD polyethylene in Mumpower] can adhere to the film layer containing the composition recited in appellants' claims. Rejection based on hindsight is impressible [*sic*, impermissible]" (App. Br. 8). This argument is based on an incorrect understanding of the basis of the Examiner's rejection.

The Examiner does not rely upon Mumpower for a description of a polyethylene layer in a multilayer structure. Rather, the Examiner relies upon Chen for a description of a material comprising metallocene catalyst produced polyethylene ("mPE") that can be used as a layer in a multilayer structure (FOA 8 (citing Chen 7:23-8:7)); Ans. 10 (same)). The Examiner merely cites Mumpower as evidence that mPE meets the specific density limitation recited in claims 7 and 9 (FOA 9; Ans. 11).

Because Appellants' argument is based upon an incorrect understanding of the basis of the Examiner's rejection, we are not persuaded by their argument that the rejection of claims 7, 9 and 20 should be reversed.

Dependent Claims. Under the heading "Patentability of other claims," Appellants seek review of the rejections of claims 11 and 14-20 (App. Br. 8-9). Appellants "argument" for reversal, however, merely repeats the limitations recited in these dependent claims (*id.*). Under our rules, this is not sufficient to amount to a separate argument for patentability of these claims. 37 C.F.R. § 41.37(c)(1)(vii) (2010) ("A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim.").

CONCLUSION

For the reasons set forth above, we affirm the Examiner's rejections of claims 1-20 of the '138 application.

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

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