

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. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte SUSAN M. KLING and BERNARD E. OBI

Appeal No. 1997-4443
Application No. 08/246,019

ON BRIEF

Before JOHN D. SMITH, KIMLIN, and PAWLIKOWSKI, Administrative Patent Judges.

PAWLIKOWSKI, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1-9 and 14. Claims 1, 2, 6 and 14 are presented in the attached appendix.

The examiner relies upon the following references as evidence of obviousness:

Grummitt	2,666,752	Jan. 19, 1954
Gerow	4,115,334	Sep. 19, 1978
Yasumatsu et al. (Yasumatsu)	4,426,477	Jan. 17, 1984
Canadian Patent (Mobberley)	621,638	Jun. 06, 1961

Appealed claims 1-9 and 14 stand rejected under 35 U.S.C. § 103 over Gerow, Yasumatsu, Grummit, and Canadian Patent 621,638.

Appealed claims 1-9 and 14 stand rejected under 35 U.S.C. § 103 over Gerow, Yasumatsu, Grummitt, and Canadian Patent 621,638 taken with appellants' disclosure of the prior art found on page 1, lines 8-20 of the specification.

We have thoroughly reviewed appellants' arguments for patentability. However, we agree with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied art. Accordingly, we will sustain the examiner's rejection for essentially the reasons set forth in the answer and as discussed below.

As indicated by the examiner (page 2 of the answer) and as stated by appellants (page 4 of the brief), the claims do not stand or fall together. Hence, we consider claims 1, 2, 6, and 14 on this appeal Under 37 CFR § 1.192 (c)(7) (1995).

The examiner states that where the references of Gerow, Yasumatsu, Grummitt, and Canadian Patent 621,638 do not explicitly disclose (1) at least 0.9 mol of the second acyl group per mol of glycerin and (2) 2.7 to 3 mol of total amount of acyl groups per mol of glycerin, one skilled in the art would be motivated to use amounts slightly above or below these values because various properties/characteristics of the film formed from

these compositions would process essentially the same oxygen transmission rate (hereinafter referred to as "OTR"). (Page 2 of the office action mailed on July 26, 1995).

Appellants argue that Gerow does not disclose the vinylidene chloride composition of appellants' claim 1. Appellants stated that Gerow does not disclose a glycerin ester containing at least 0.9 mol per mol of glycerin. (Brief, page 5). Appellants argue that Gerow's purpose of adding more-or diglycerides was to produce a film having excellent artistic properties, and therefore there are no teachings which would motivate a person skilled in the art to add glycerin ester to the vinylidene chloride composition to provide an OTR of less than 9 cc-mil/100 in²-atm-day.

Appellants argue that Yasumatsu discloses a vinyl chloride resin composition containing a particular glycerin ester. Appellant states that Yasumatsu does not disclose a vinylidene chloride polymer formed from a monomer mixture wherein the major component is vinylidene chloride and the remainder is at least one monoethylenically unsaturated monomer copolymerizable therewith, excluding vinyl chloride. Nowhere does Yasumatsu suggest to replace its vinyl chloride with vinylidene chloride polymer recited in appellants' claim 1.

Appellants argue that Grummit does not teach or suggest anything about a glycerin ester containing an acyl radical having 10-14 carbon atoms. Also Grummit does not teach or suggest adding a certain amount of a particular glycerin ester to the composition to provide appellants' claimed OTR.

Appellants argue that Canadian Patent 621,638 does not disclose a vinylidene chloride polymer formed from a monomer mixture wherein the major component is

vinylidene chloride and the remainder is at least one monoethylenically unsaturated monomer copolymerizable therewith, excluding vinyl chloride.

With regard to appellants disclosure of prior art, appellants argue that the combination does not teach a vinylidene chloride polymer composition containing a particular glycerin ester present in an amount sufficient to provide the composition with an oxygen transmission rate of less than about 9 cc-mil/100 in²-atm-day.

The examiner rebuts and states that appellants have not provided evidence to factually distinguish over the applied art. (Answer, page 3). The examiner states that the OTR of the film made from the composition of Yasumato, for example, would be essentially the same. (Answer, page 3). The examiner also states that “saran polymers” are known to be derived from vinylidene chloride copolymer, thus comonomers of vinyl chloride, methyl acrylate, acrylonitrile, are considered equivalent.

Appellants, in their first reply brief, state that permeability is affected by the kind and amounts of comonomer in the polymer, and refer to the publication entitled “Barrier Properties”. Appellants state that table 9 in this publication shows that the permeability of vinylidene chloride polymer to O₂ increases as the amount of comonomer, such as vinyl chloride monomer increases and the amount of vinylidene chloride monomer decreases. The table also shows that the kind of comonomer present in the polymer affects permeability of the vinylidene chloride polymer. (First Reply Brief, pages 2-3). Appellants conclude that vinyl chloride and acrylonitrile as well as the other comonomers, are not equivalent with respect to their effects on the permeability properties of the vinylidene chloride polymer.

Appellants argue that since the major component of Yasumatsu's composition is vinyl chloride, the OTR of Yasumatsu would not be essentially the same as the OTR of appellants' invention.

The examiner rebuts, in his supplemental examiner's answer of paper no. 14 that Yasumatsu teaches limited scope of vinyl chloride/vinylidene chloride polymer (Saran Types). The examiner also states that appellants have not submitted comparative data in connection with Yasumatsu.

Appellants, in their second reply brief, argue that Yasumatsu discloses vinyl chloride resin compositions. Nowhere is vinylidene chloride resin composition mentioned. Appellants argue that it is known that "vinyl chloride resin" refers to polyvinyl chloride polymers and the various copolymers of vinyl chloride formed by polymerizing vinyl chloride with other copolymerizable materials wherein vinyl chloride is the major component (more than 50 percent).

Appellants argue that with regard to the term "SaranTM", the term is known to refer to vinylidene chloride homopolymers and copolymers containing vinylidene chloride as the major component. Appellants submit that Yasumatsu does not represent a broad class of "Saran" polymers.

In a second supplemental answer the examiner states that the evidence submitted by appellants is not sufficient to establish differences in OTR because the polymers of Yasumatsu is not limited to polyvinylchloride. The examiner states that Yasumatsu only represents a broad class of "Saran" polymers rather than specific saran recited on page 99 of the Poly. Monograph publication. Lastly, the values recited in appellants' claim of "about 9" overlap the values of 16 in the Poly. Monograph.

We must agree with the examiner's understanding of the applied art. Appellants have not submitted sufficient evidence to overcome the prima facie case.

Summary

We affirm the rejection of claims 1-9 and 14 under 35 U.S.C. § 103 over Gerow, Yasumatsu, Grumitt, and Canadian Patent 621,638.

We affirm the rejection of claims 1-9 and 14 under 35 U.S.C. § 103 over Gerow, Yasumatsu, Grumitt and Canadian Patent 621,638, taken with appellants' disclosure found on page 1, at lines 8-20 of the specification.

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

AFFIRMED

JOHN D. SMITH)	
Administrative Patent Judge)	
)	
)	
)	
EDWARD C. KIMLIN)	BOARD OF PATENT
Administrative Patent Judge)	APPEALS AND
)	INTERFERENCES
)	
)	
BEVERLY A. PAWLIKOWSKI)	
Administrative Patent Judge)	

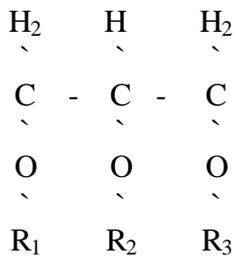
SLD

Appeal No. 1997-4443
Application No. 08/246,019

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APPENDIX

1. A vinylidene chloride polymer composition comprising (1) a vinylidene chloride polymer formed from a monomer mixture wherein the major component is vinylidene chloride and the remainder is at least one monoethyleically unsaturated monomer copolymerizable therewith, excluding vinyl chloride, and (2) a glycerin ester represented by the formula:



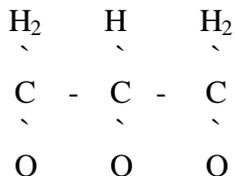
wherein each of R₁, R₂ and R₃ is independently a hydrogen atom or a mixture of a first acyl group and a second acyl group, the first acyl group having 2 carbon atoms and the second acyl group having 10 to 14 carbon atoms, the first acyl group is present in an amount, on the average, of up to 2 mol per per of glycerin, the second acyl group is present in an amount, on the average, of at least 0.9 mol per per of glycerin and the total amount of the acyl groups is, on the average, 2.7 to 3.0 mol per mol of glycerin;

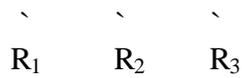
the glycerin ester being present in an amount sufficient to provide the composition with an oxygen transmission rate of less than about 9 cc-mil/100 in²-atm-day.

2. The composition of Claim 1 wherein the monomer mixture comprises from about 91 to about 94 weight percent vinylidene chloride and from about 6 to about 9 weight percent methyl acrylate.

6. A packaging film comprising the vinylidene chloride polymer composition of Claim 1.

14. A vinylidene chloride polymer composition consisting essentially of (1) a vinylidene chloride polymer formed from a monomer mixture wherein the major component is vinylidene chloride and the remainder is at least one monoethylenically unsaturated monomer copolymerizable therewith, excluding vinyl chloride, and (2) a glycerin ester represented by the formula:





wherein each of R_1 , R_2 and R_3 is independently a hydrogen atom or a mixture of a first acyl group and a second acyl group, the first acyl group having 2 carbon atoms and the second acyl group having 10 to 14 carbon atoms, the first acyl group is present in an amount, on the average, of up to 2 mol per mol of glycerin, the second acyl group is present in an amount, on the average, of at least 0.9 mol per mol of glycerin and the total amount of the acyl groups is, on the average, 2.7 to 3.0 per mol of glycerin;

the glycerin ester being present in an amount sufficient to provide the composition with an oxygen transmission rate of less than about 9 cc-mil/100 in²-atm-day.