

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. 17

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KANCHAN GHOSAL
and
VENKATARAM KRISHNAN

Appeal No. 2001-0742
Application No. 09/128,912

ON BRIEF

Before WILLIAM F. SMITH, PAWLIKOWSKI and POTEATE, **Administrative Patent Judges**.

POTEATE, **Administrative Patent Judge**.

DECISION ON APPEAL

This is an appeal under 35 U.S.C. § 134 from the examiner's refusal to allow claims 8-26, which are all of the claims pending in the application.

Claims 8 and 17 are representative of the subject matter on appeal and are reproduced below:

8. A crosslinked film formed from a polymer latex composition, said polymer latex composition comprising:

about 5 to about 65 weight percent of an aromatic vinyl monomer;

about 35 to about 90 weight percent of a conjugated diene monomer; and

about 0.5 to about 10 weight percent of a component selected from the group consisting of an unsaturated acid monomer, a partial ester of an unsaturated polycarboxylic acid monomer, and mixtures thereof;

said polymer latex composition being devoid of natural rubber;

wherein said crosslinked film has a degree of crosslinking such that the film has a tensile strength of at least 1000 psi, an elongation of at least 400 percent, and a modulus at 100 percent elongation of no more than about 500 psi.

17. A glove comprising a crosslinked film formed from a polymer latex composition, the polymer latex composition comprising about 5 to about 65 weight percent of an aromatic vinyl monomer, about 35 to about 90 weight percent of a conjugated diene monomer, and about 0.5 to about 10 weight percent of a component selected from the group consisting of an unsaturated acid monomer, a partial ester of an unsaturated polycarboxylic acid monomer, and mixtures thereof, the polymer latex composition being devoid of natural rubber; wherein said film has a degree of crosslinking such that said glove has a tensile strength of at least about 1000 psi, an elongation of at least 400 percent, and a modulus at 100 percent elongation of no more than about 500 psi.

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The references relied upon by the examiner are:

Kolb	2,959,821	Nov. 15, 1960
Buchheim et al. (Buchheim)	3,756,974	Sept. 4, 1973
Schwinum et al. (Schwinum)	4,102,844	July 25, 1978
Bruschtein et al. (Bruschtein)	4,537,916	Aug. 27, 1985
Szczuchura et al. (Szczechura)	5,084,514	Jan. 28, 1992

GROUND OF REJECTION

1. Claims 8-15, 17-19 and 22-26 stand rejected under 35 U.S.C. § 102(b) as anticipated by Schwinum.
2. Claims 8-15 stand rejected under 35 U.S.C. § 102(b) as anticipated by Kolb.
3. Claims 8-13 and 15 stand rejected under 35 U.S.C. § 102(b) as anticipated by Bruschtein.
4. Claims 8-16 stand rejected under 35 U.S.C. § 102(b) as anticipated by Buchheim.
5. Claims 16-26 stand rejected under 35 U.S.C. § 103 as unpatentable over Kolb in view of Schwinum and either Buchheim or Szczechura.

We reverse as to all five grounds of rejection.

BACKGROUND

The invention relates to a crosslinked film formed from a polymer latex composition and to a glove comprising the film.

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See Appeal Brief, Paper No. 13, received March 3, 2000, page 2.

The polymer latex composition comprises about 5 to about 65 weight percent of an aromatic vinyl monomer; about 35 to about 90 weight percent of a conjugated diene monomer; and about 0.5 to about 10 weight percent of a component selected from the group consisting of an unsaturated acid monomer, a partial ester of an unsaturated polycarboxylic acid monomer, and mixtures thereof.

Id.

According to appellants, crosslinking of the film is manipulated such that articles formed therefrom possess the physical properties of strength and elongation as well as aesthetic features such as softness and comfort which are related to the modulus. *Id.* A particular advantage of the invention is that articles made from the crosslinked film do not include natural rubber, since many individuals are allergic to natural rubber proteins. *Id.*

DISCUSSION

Rejections under 35 U.S.C. § 102(b)

Anticipation requires the disclosure, in a single prior art reference, of each element of the claim under consideration.

See W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1554, 220 USPQ 303, 313 (Fed. Cir. 1983), ***cert. denied***, 469 U.S. 851

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(1984). A prior art reference may anticipate when the claim limitation or limitations not expressly found in that reference are nonetheless inherent in it. **Verdigaal Bros., Inc. v. Union Oil Co.**, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir.), **cert. denied**, 484 U.S. 827 (1987). Under the principles of inherency, the prior art anticipates if it necessarily functions in accordance with, or includes, the claimed limitations. **In re King**, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). However, underlying arguments based on inherency cannot stand where there is no supporting teaching in the prior art. **In re Spormann**, 363 F.2d 444, 448, 150 USPQ 449, 452 (CCPA 1966). "Inherent anticipation requires that the missing descriptive material is 'necessarily present,' not merely probably or possibly present, in the prior art." **Trintec Indus., Inc. v. Top-U.S.A. Corp.**, 295 F.3d 1292, 1295, 63 USPQ2d 1597, 1599 (Fed. Cir. 2002) (citations omitted).

Each of Schwinum, Kolb, Bruschtein and Buchheim disclose crosslinked latex compositions and films which include an aromatic vinyl monomer, a conjugated diene monomer and a component selected from the group consisting of an unsaturated acid monomer, partial ester of an unsaturated carboxylic acid

monomer and mixtures thereof in ranges overlapping those recited in claim 8. However, none of these references teach a specific example wherein the latex composition comprises the components in proportions which fall within the claimed ranges.

As conceded by the examiner, none of the cited references disclose crosslinked films having all of the recited features of "a tensile strength of at least about 1000 psi, an elongation of at least 400 percent, and a modulus at 100 percent elongation of no more than about 500 psi" (claim 8). See Examiner's Answer, page 4 ("Schwinum . . . does not specifically disclose Applicant's [sic] recited elongation, modulus and swell area values."); page 5 ("Kolb may not **specifically** disclose Applicant's [sic] recited modulus and swell area."); page 6 ("Bruschtein may not **specifically** disclose Applicant's [sic] recited modulus, elongation and swell area."); and page 7 ("Buchheim does not specifically disclose Applicant's [sic] recited elongation, modulus and swell area."). It is the examiner's position that because the cited references disclose the same rubber latex compositions, then the crosslinked films must inherently possess the same physical properties of appellants' claimed crosslinked films. **See id.**

Appellants urge that despite the fact that the polymeric compositions of the references may be similar to appellants' composition, the claimed films are not the same as those of the cited references, because "the composition of a latex polymer clearly does not solely dictate final physical end properties of crosslinked films made therefrom." Appeal Brief, page 4. In particular, appellants note that the extent of latex film crosslinking is due to a number of factors such as gel content, swell area, etc. which are dependent upon processing temperature, extent of conversion, rate of reaction, polymer concentration, catalyst concentration, etc. *Id.* Appellants further note that film performance properties are influenced during the inherent stage of polymer formation as well as during post polymerization crosslinking, which is influenced by factors such as cure additives. *Id.* In support of their position, appellants reference three separate articles which were submitted with appellants' amendment received December 9, 1999, Paper No. 9. Appellants rely on these articles as proof that the properties of latex polymers are determined by variables other than composition alone.

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The examiner urges that "[o]nce a reference teaching product appear[s] to be substantially identical . . . and the Examiner presents evidence **or** reasoning tending to show inherency, **the burden shifts to the Applicant to show an unobvious difference.**" Examiner's Answer, page 11 (quoting MPEP § 2112). Although the examiner's statement of the law is correct, we agree with appellants that the examiner has not presented the requisite evidence or reasoning tending to show inherency. The lack of specific examples of crosslinked films comprising polymer latex compositions falling within the ranges cited in appellants' claim 8, coupled with appellants' evidence demonstrating that the properties of crosslinked films result from numerous variables other than composition, demonstrate that the missing descriptive material of tensile strength, elongation and/or modulus recited in claim 8 is simply not "necessarily present" in the cited references.

Accordingly, the rejections under 35 U.S.C. § 102(b) (GROUNDS OF REJECTION 1-4) are reversed.

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Rejection under 35 U.S.C. § 103

In rejecting claims 16-26 under 35 U.S.C. § 103, the examiner relies on Kolb as disclosing articles formed from the claimed crosslinked film and relies on Schwinum as teaching a molding technique for manufacturing gloves. Examiner's Answer, page 9. Buchheim and Szczechura are relied on as teaching laminating or coating latex gloves with, for example, a powder. **See id.** As discussed above in connection with the rejections under 35 U.S.C. § 102(b), we have concluded that none of the cited references disclose the claimed crosslinked film. Moreover, the examiner has failed to explain why one of ordinary skill in the art would have been motivated to modify the film disclosed in Kolb or any of the other references to achieve a crosslinked film having the recited properties of claims 8 and 17.

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Accordingly, the examiner has failed to establish a ***prima facie*** case of obviousness and the rejection is reversed.

REVERSED

WILLIAM F. SMITH)	
Administrative Patent Judge)	
)	
)	
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)	BOARD OF PATENT
BEVERLY A. PAWLIKOWSKI)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
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LINDA R. POTEATE)	
Administrative Patent Judge)	

LRP:psb

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