

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte ANNETTE LECHTENBOEHMER,
GIORGIO AGOSTINI and FILOMENO GENNARO CORVASCE

Appeal 2007-3258
Application 10/916,195
Published Patent Application 2006/0032568
Technology Center 1700

Decided: 10 September 2007

Before: FRED E. McKELVEY, *Senior Administrative Patent Judge*,
and ADRIENE LEPIANE HANLON and MICHAEL P. TIERNEY,
Administrative Patent Judges.

Opinion for the Board filed by *Senior Administrative Patent Judge*
McKELVEY.

DECISION ON APPEAL

1 **A. Statement of the case**

2 Appellants (1) Annette Lechtenboehmer, (2) Giorgio Agostini and (3)
3 Filomeno Gennaro Corvasce (hereafter "**Goodyear**") seek review under

1 35 U.S.C. § 134(a) of a final rejection of claims 1-8, 11, 13 and 15-16, the
2 only claims remaining in the application on appeal.

3 We have jurisdiction under 35 U.S.C. § 6(b).

4 The application on appeal was filed on 11 August 2004.

5 The real party in interest is The Goodyear Tire & Rubber Company
6 ("Goodyear").

7 The Examiner rejected all of the claims under 35 U.S.C. § 103(a) as
8 being unpatentable over the combination of Katsuki, Cahill and Masson.

9 The reader should know that no references to *et al.* are made in this opinion.

10 The following prior art was relied upon by the Examiner.

11

12	<u>Name</u>	<u>Patent Number</u>	<u>Issue Date</u>
13	Katsuki	US 5,992,486	30 Nov. 1999
14	Cahill	US 6,083,585	04 July 2000
15	Masson	US 6,675,851 B1	13 January 2004

16

17 Katsuki and Cahill are prior art under 35 U.S.C. § 102(b).

18 Masson is prior art under 35 U.S.C. § 102(e)

19 In this appeal, Goodyear has not attempted to antedate Masson.

20 Accordingly, for the purpose of this appeal, Masson is prior art.

21

22 **B. Record on appeal**

23 In deciding this appeal, we have considered *only* the following
24 documents:

25 1. Specification, including original claims (there are no
26 drawings).

- 1 2. Final Rejection entered 20 June 2006.
- 2 3. The Appeal Brief received 24 November 2006.
- 3 4. The Examiner's Answer entered 18 January 2007.
- 4 5. Katsuki.
- 5 6. Cahill.
- 6 7. Masson.
- 7 8. PTO bibliographic data sheet for the application on appeal
- 8 9. Claims on appeal.

9

10 **C. Issues**

11 The issue is whether Goodyear has sustained its burden of showing
12 that the Examiner erred in rejecting the claims on appeal as being
13 unpatentable under 35 U.S.C. § 103(a) over the prior art.

14

15 **D. Findings of fact**

16 The following findings of fact are believed to be supported by a
17 preponderance of the evidence. To the extent that a finding of fact is a
18 conclusion of law, it may be treated as such. Additional findings as
19 necessary may appear in the Discussion portion of the opinion.

20

Background of the invention

21 Pneumatic tires include many components made with rubber or rubber
22 compounds that are susceptible to degradation and aging due to oxidation.
23 Specification, page 1:5-6.

1 Claims on appeal

2 In its Appeal Brief, Goodyear does not single out any dependent claim
3 for separate consideration apart from claim 1.

4 Accordingly, we decide the appeal on the basis of claim 1. 37 C.F.R.
5 § 41.67(c)(1)(vii) (2006).

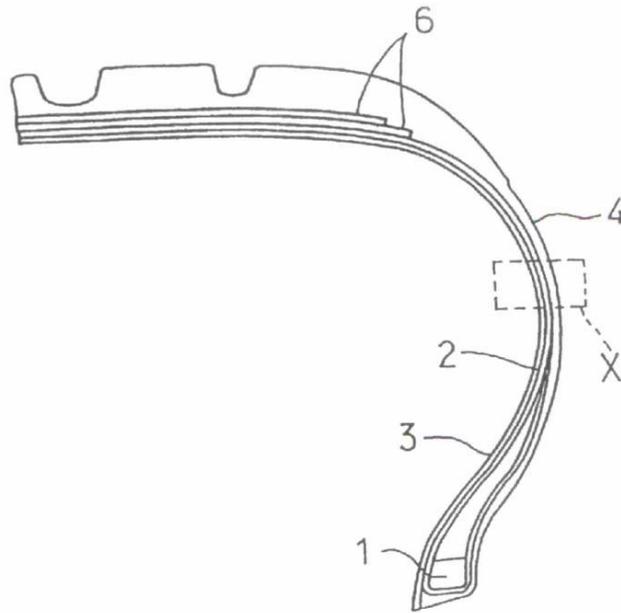
6 Claim 1 reads (Appeal Br., Claims Appendix):

7 A pneumatic tire comprising at least one oxygen scavenging
8 barrier, the barrier comprising a polyester copolymer, said
9 polyester copolymer comprising a copolycondensate of
10 polyester and a polyolefin oligomer.

11
12 Katsuki

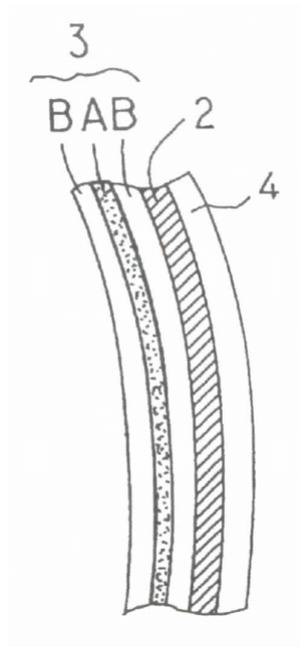
13 Katsuki relates to a laminate suitable for use with pneumatic tires
14 having a gas-impermeable layer, such as an inner liner, which is capable of
15 maintaining a requisite air pressure. Col. 1:4-7.

16 An object of the Katsuki invention is to provide a laminate comprising
17 a laminated film and a rubber layer, the laminate being suitable for use as a
18 component of a pneumatic tire and having an air pressure retentivity
19 sufficient to retain the required air pressure in the tire. Col. 1:63 through
20 col. 2:1.



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Katsuki Fig. 2 shows a fragmentary view of a pneumatic tire in half section taken in the meridian direction.



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Katsuki Fig. 3 shows an enlarged sectional view of portion X of Fig. 2.

1 relevant objective evidence of obviousness or non-obviousness. *KSR*, 127
2 S. Ct. at 1734; 82 USPQ2d at 1388, *Graham*, 383 U.S. at 17-18.

3 A person having ordinary skill in the art uses known elements and
4 process steps for their intended purpose. *Anderson's-Black Rock, Inc. v.*
5 *Pavement Salvage Co.*, 396 U.S. 57, 163 USPQ 673 (1969) (radiant-heat
6 burner used for its intended purpose in combination with a spreader and a
7 tamper and screed); *Sakraida v. AG Pro, Inc.*, 425 U.S. 273, 282, 189 USPQ
8 449, 452-53 (1976) (the involved patent simply arranges old elements with
9 each performing the same function it had been known to perform); *Dunbar*
10 *v. Myers*, 4 Otto (94 U.S.) 187, 195 (1876) (ordinary mechanics know how
11 to use bolts, rivets and screws and it is obvious that any one knowing how to
12 use such devices would know how to arrange a deflecting plate at one side
13 of a circular saw which had such a device properly arranged on the other
14 side).

15 When multiple prior art references are used to reject a claim, then the
16 prior art references should be "analogous." Prior art is "analogous" when a
17 person having ordinary skill in the art would consider it relevant or related to
18 the invention sought to be patented. *Dann v. Johnston*, 425 U.S. 219, 229,
19 189 USPQ 257, 261 (1976) (data processing system used in large business
20 organization found to be analogous to inventor's data process system used in
21 banking industry); *Graham v. John Deere Co.*, 383 U.S. 1, 35 (1966) (where
22 inventor was attempting to solve mechanical closure problem, liquid
23 containers having pouring spouts found to be analogous to an inventor's
24 pump spray insecticide bottle cap); *Cuno Engineering Corp. v. Automatic*
25 *Devices Corp.*, 314 U.S. 84, 91-92, 51 USPQ 272, 276 (1941) (thermostat to

1 break circuit in an electric heater, toaster or iron found to be analogous to a
2 circuit breaker used in an inventor's cordless cigar lighter); *Mast, Foos &*
3 *Co. v. Stover Mfg. Co.*, 177 U.S. 485, 493 (1900) (device used in mills other
4 than windmills held to be analogous to inventor's use of same device in
5 windmills); *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445
6 (Fed. Cir. 1992) (if art is reasonably pertinent to the particular problem with
7 which an inventor is concerned, then the art is "analogous").

8

9 **F. Discussion**

10 We have little difficulty finding Goodyear and Cahill were addressing
11 a similar problem—scavenging detrimental oxygen in multi-layer articles.

12 Generally speaking, it may be true that bottles and tires may not be
13 made commercially by the same commercial entity. *KSR* states that when a
14 work is available in one field of endeavor, design incentives can prompt
15 variations of it, either in the same field or a different field. 127 S. Ct. at
16 1740, 82 USPQ2d at 1389. *See also* (1) *In re Icon Health and Fitness, Inc.*,
17 No. 2006-1573, slip op. at 7 (Fed. Cir. Aug. 1, 2007) ("familiar items may
18 have obvious uses beyond their primary purposes") and (2) *In re Sullivan*,
19 No. 2006-1507, slip op. at 9-10 (Fed. Cir. Aug. 29, 2007) (since Sullivan
20 teaches whole antibodies for use against rattlesnake venom and Coulter
21 teaches using Fab fragments to detect venom of a different snake it would
22 not have been unreasonable for one skilled in the art of snake venom to
23 consider that a Fab fragment of a whole antibody that neutralizes one type of
24 venom might be used to neutralize the venom of another species).

1 What Goodyear was seeking was a means to keep detrimental oxygen
2 away from portions of a tire. Cahill had already solved the problem in
3 bottles using a copolymer layer disposed between PET layers of a bottle.
4 Goodyear used the same copolymer layer in a tire for the same purpose.

5 It may also be true that Katsuki's layer **A** was not a oxygen
6 scavenging layer. But, layer **A** was designed by Katsuki to keep oxygen
7 contained within the tire. In addition, Katsuki is not the whole story when it
8 comes to confining oxygen to particular parts of a tire. Goodyear tells us
9 that innerliners have been used on the inner surfaces of tires to retain
10 inflation air within the tire, *i.e.*, prevent oxygen from leaking out of the tire.
11 Specification, page 1:8-10.

12 What is apparent from the facts of this case is that Goodyear has used
13 a known technique (a polyester oxygen scavenging layer) for its known
14 purpose (scavenging oxygen) in tires in which there is a known need for
15 maintaining oxygen away from various portions of the tire (Specification,
16 page 1:8-10). The use of known materials for their intended purpose is
17 strong evidence of obviousness. See *KSR* and *Anderson's-Blackrock, supra*.
18 See also *In re Trans Texas Holdings Corp.*, Nos. 2006-1599, -1600, slip op.
19 at 18-19 (Fed. Cir. Aug. 22, 2007) (the board did not err in concluding that it
20 would have been obvious to combine the indexed loan accounts disclosed in
21 Murkherjee with the well-known practice of offering loans secured by
22 mortgaged real estate). Those skilled in the art, therefore, are necessarily
23 "motivated" (to use Goodyear's word) to use known elements for their
24 intended purpose.

1 Goodyear argues that one skilled in the art would have to resort to
2 undue experimentation to determine which oxygen scavenging composition
3 could be used in a tire. Why? Cahill describes a layer which will scavenge
4 oxygen and there is no apparent reason why the same layer would not work
5 along with or in place of Katsuki's layer **A** to scavenge oxygen. Goodyear's
6 undue experimentation argument is not based on any evidence which would
7 support findings based on *Ex parte Forman*, 230 USPQ 546, 547 (Bd. Pat.
8 App. & Int. 1986) and *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400,
9 1404 (Fed. Cir. 1988).

10 Goodyear further argues that Cahill does not teach that its layers are
11 suitable for use as permeation resistant material—*i.e.*, the function of layer
12 **A** of Katsuki. Accordingly, Goodyear reasons that one skilled in the art
13 would not replace layer **A** of Katsuki with the Cahill layer. Overlooked by
14 Goodyear's argument is that claim 1 uses the transition phrase "comprising"
15 and nothing in Katsuki would preclude the additional use of Cahill layer **30**
16 in the Katsuki configuration. In Fig. 6, Katsuki describes a configuration
17 with seven layers so it is apparent that nothing in Katsuki limits its invention
18 to a three-layer embodiment. Further overlooked by Goodyear's argument is
19 the fact that both Katsuki layer **A** and Cahill layer **30** are polyester materials,
20 albeit different polyesters. Both seek to prevent oxygen from reaching
21 particular parts of the tire carcass.

22 We have considered Goodyear's remaining arguments and find none
23 that warrant reversal of the Examiner's rejections. *Cf. Hartman v.*
24 *Nicholson*, 483 F.3d 1311, 1315 (Fed. Cir. 2007).

25

1 **G. Conclusions of law**

2 Goodyear has not sustained its burden on appeal of showing that the
3 Examiner erred in rejecting the claims on appeal as being unpatentable under
4 35 U.S.C. § 103(a) over the prior art.

5 On the record before us, Goodyear is not entitled to a patent
6 containing claims 1-8, 11, 13 and 15-16 on appeal.

7

8 **H. Decision**

9 ORDERED that the decision of the Examiner rejecting
10 claims 1-8, 11, 13 and 15-16 under 35 U.S.C. § 103(a) over the prior art is
11 *affirmed*.

12 FURTHER ORDERED that no time period for taking any
13 subsequent action in connection with this appeal may be extended under
14 37 C.F.R. § 1.136(a)(1)(iv) (2006).

AFFIRMED

cc (via First Class mail)

Attorney and address

John D. DeLong, Esq.
The Goodyear Tire & Rubber Company
1144 East Market Street
Akron, Ohio 44316-0001

Tel: 330-796-8457