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CLERK US DISTRICT COURT
SOUTHERN DISTRICT OF CALIFORNIA
BY jk DEPUTY

10 UNITED STATES DISTRICT COURT
11 SOUTHERN DISTRICT OF CALIFORNIA

12 OAKLEY, INC., a Washington
13 corporation,

14 Plaintiff,

15 vs.

16 PEPPER'S PERFORMANCE
17 EYEWEAR, INC. dba CHILI'S
18 EYEGEAR, a Pennsylvania
19 corporation,

20 Defendant.

Cas. No. 09 CV 2615 W CAB

COMPLAINT FOR PATENT
INFRINGEMENT

JURY TRIAL

21 Plaintiff Oakley, Inc. (hereinafter referred to as "Oakley") hereby complains
22 of Defendant Pepper's Performance Eyewear, Inc. dba Chili's Eyegear (hereinafter
23 referred to as "Pepper's") and alleges as follows:
24

25 JURISDICTION AND VENUE

26 1. Jurisdiction over this action is founded upon 15 U.S.C. § 1121, and 28
27 U.S.C. §§ 1331 and 1338.
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1 2. Venue is proper under 28 U.S.C. §§ 1391(b) and (c) and 28 U.S.C. §
2 1400(b). The Defendant sold infringing products in this district and has directed
3 sales and marketing efforts toward this district.

4 **THE PARTIES**

5 3. Plaintiff Oakley is a corporation organized and existing under the laws
6 of the State of Washington, having its principal place of business at One Icon,
7 Foothill Ranch, California, 92610 and doing business within this judicial district.

8 4. Oakley is informed and believes, and thereupon alleges that
9 Defendant Pepper's Performance Eyewear, Inc. is a Pennsylvania corporation
10 doing business at 3001 Pulawski Way, Pittsburgh, PA 15219, and doing business
11 under the brand name Pepper's and Chili's. Oakley is informed and believes, and
12 thereupon alleges, that Defendant sells its products in this district, directs sales and
13 marketing to this district, and otherwise puts its products, including the accused
14 products, in the stream of commerce for resale in this district.

15 **FACTUAL BACKGROUND**

16 5. As early as 1985, Oakley has been and continues to be actively
17 engaged in the manufacture and sale of high quality sport eyewear under various
18 product lines. Oakley is the manufacturer and retailer of several lines of eyewear,
19 including its *Half Jacket*®, *Flak Jacket*®, *Jawbone*, *Gascan*®, *Scar*®, and *M*
20 *Frame*®, sunglass lines.

21 6. Oakley is the owner by assignment of U.S. Patent No. 5,387,949, duly
22 and lawfully issued on February 7, 1995, describing and claiming an invention
23 entitled "Eyeglass Connection Device," which protects the described and claimed
24 technology embodied by Oakley's *Half Jacket* and *Flak Jacket* lines of eyeglasses,
25 among others. A correct copy of U.S. Patent No. 5,387,949 is attached hereto as
26 Exhibit 1.
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1 7. Oakley is informed and believes, and thereupon alleges that
2 Defendant Pepper's is selling eyewear that incorporates the claimed technology of
3 Oakley's U.S. Patent No. 5,387,949. In particular, Oakley alleges that the "Chili's
4 Panthor," "Chili's Rainier," and "Chili's Tarton" eyewear models embody the
5 subject matter claimed in Oakley's patent referred to above without any license
6 thereunder, and thereby infringes this patent. Oakley is informed and believes, and
7 based thereon, alleges that Defendant Pepper's sold infringing eyewear to various
8 distributors, retailers, and retail customers, including within this judicial district.
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10 8. Oakley is the owner by assignment of U.S. Patent No. 5,638,145, duly
11 and lawfully issued on June 10, 1997, describing and claiming the invention
12 entitled "Vented Eyeglass Lens," which protects the described and claimed
13 technology embodied by Oakley's *Jawbone* line of eyeglasses. A correct copy of
14 U.S. Patent No. 5,638,145 is attached hereto as Exhibit 2.

15 9. Oakley is informed and believes, and thereupon alleges that
16 Defendant Pepper's is selling eyewear that incorporates the claimed technology of
17 Oakley's U.S. Patent No. 5,638,145. In particular, Oakley alleges that Pepper's
18 "Chili's Rainier" and "Chili's Player" eyewear models embody the subject matter
19 claimed in Oakley's patent referred to above without any license thereunder, and
20 thereby infringes this patent. Oakley is informed and believes, and based thereon,
21 alleges that Defendant Pepper's sold infringing eyewear to various distributors,
22 retailers, and retail customers, including within this judicial district.

23 10. Oakley is the owner by assignment of U.S. Patent No. D554,689, duly
24 and lawfully issued on November 6, 2007, describing and claiming the invention
25 entitled "Eyeglass Frame," which protects the claimed design embodied by
26 Oakley's *Gascan* line of eyeglasses. A correct copy of U.S. Patent No. D554,689
27 is attached hereto as Exhibit 3.
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1 11. Oakley is informed and believes, and thereupon alleges that
2 Defendant Pepper's is selling eyewear that incorporates the patented design of
3 Oakley's U.S. Patent No. D554,689. In particular, Oakley alleges that Pepper's
4 "Chili's Bishop" and "Chili's Tedder" eyewear models embody the subject matter
5 claimed in Oakley's patent referred to above without any license thereunder, and
6 thereby infringes this patent. Oakley is informed and believes, and based thereon,
7 alleges that Defendant Pepper's sold infringing eyewear to various distributors,
8 retailers, and retail customers, including within this judicial district.

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10 12. Oakley is the owner by assignment of U.S. Patent No. D547,794, duly
11 and lawfully issued on July 31, 2007, describing and claiming the invention
12 entitled "Eyeglasses," which protects the claimed design that is embodied by
13 Oakley's *Gascan* line of eyeglasses. A correct copy of U.S. Patent No. D547,794
14 is attached hereto as Exhibit 4.

15 13. Oakley is the owner by assignment of U.S. Patent No. D556,818, duly
16 and lawfully issued on December 4, 2007, describing and claiming the invention
17 entitled "Eyeglass Components," which protects the claimed design embodied by
18 Oakley's *Gascan* line of eyeglasses. A correct copy of U.S. Patent No. D556,818
19 is attached hereto as Exhibit 5.

20 14. Oakley is informed and believes, and thereupon alleges that
21 Defendant Pepper's is selling eyewear that incorporates the patented designs of
22 Oakley's U.S. Patent Nos. D547,794 and D556,818. In particular, Oakley alleges
23 that Pepper's "Chili's Tedder" eyewear model embodies the subject matter claimed
24 in Oakley's patent referred to above without any license thereunder, and thereby
25 infringes this patent. Oakley is informed and believes, and based thereon, alleges
26 that Defendant Pepper's sold infringing eyewear to various distributors, retailers,
27 and retail customers, including within this judicial district.
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1 15. Oakley is the owner by assignment of U.S. Patent No. D463,478, duly
2 and lawfully issued on September 24, 2002, describing and claiming the invention
3 entitled "Eyeglass and Eyeglass Components," which protects the claimed design
4 embodied by Oakley's *Scar* line of eyeglasses. A correct copy of U.S. Patent No.
5 D463,478 is attached hereto as Exhibit 6.

6 16. Oakley is informed and believes, and thereupon alleges that
7 Defendant Pepper's is selling eyewear that incorporates the patented design of
8 Oakley's U.S. Patent No. D463,478. In particular, Oakley alleges that Pepper's
9 "K85258 Rascal" eyewear model embodies the subject matter claimed in Oakley's
10 patent referred to above without any license thereunder, and thereby infringes this
11 patent. Oakley is informed and believes, and based thereon, alleges that Defendant
12 Pepper's sold infringing eyewear to various distributors, retailers, and retail
13 customers, including within this judicial district.
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15 17. Oakley is the owner by assignment of U.S. Patent No. 5,054,903, duly
16 and lawfully issued on October 8, 1991, describing and claiming the invention
17 entitled "Eyewear Traction Device," which protects the claimed design embodied
18 by Oakley's *M Frame* line of eyeglasses. A correct copy of U.S. Patent No.
19 5,054,903 is attached hereto as Exhibit 7.

20 18. Oakley is informed and believes, and thereupon alleges that
21 Defendant Pepper's is selling eyewear that incorporates the patented design of
22 Oakley's U.S. Patent No. 5,054,903. In particular, Oakley alleges that Pepper's
23 "Chili's Player" eyewear model embodies the subject matter claimed in Oakley's
24 patent referred to above without any license thereunder, and thereby infringed this
25 patent, prior to its expiration on October 8, 2009. Oakley is informed and believes,
26 and based thereon, alleges that Defendant Pepper's sold infringing eyewear to
27 various distributors, retailers, and retail customers, including within this judicial
28 district.

1 19. Oakley is the owner by assignment of U.S. Patent No. 5,137,342, duly
2 and lawfully issued on August 11, 1992, describing and claiming the invention
3 entitled "Eyewear Traction Device". A correct copy of U.S. Patent No. 5,137,342
4 is attached hereto as Exhibit 8.

5 20. Oakley is informed and believes, and thereupon alleges that
6 Defendant Pepper's has and is selling eyewear that incorporates the claimed
7 technology of Oakley's U.S. Patent No. 5,137,342. In particular, Oakley alleges
8 that Pepper's "Chili's Player" eyewear model embodies the subject matter claimed
9 in Oakley's patent referred to above without any license thereunder, and thereby
10 infringed this patent prior to its expiration on October 8, 2008. Oakley is informed
11 and believes, and based thereon, alleges that Defendant Pepper's sold infringing
12 eyewear to various distributors, retailers, and retail customers, including within this
13 judicial district.
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15 21. Oakley is the owner by assignment of U.S. Patent No. D333,145, duly
16 and lawfully issued on February 9, 1993, describing and claiming the invention
17 entitled "Unitary Eyeglass Lens," which protects the claimed design embodied by
18 Oakley's *M Frame* line of eyeglasses. A correct copy of U.S. Patent No. D333,145
19 is attached hereto as Exhibit 9.

20 22. Oakley is informed and believes, and thereupon alleges that
21 Defendant Pepper's is selling eyewear that incorporates the patented design of
22 Oakley's U.S. Patent No. D333,145. In particular, Oakley alleges that Pepper's
23 "Chili's Player" eyewear model embodies the subject matter claimed in Oakley's
24 patent referred to above without any license thereunder, and thereby infringes this
25 patent. Oakley is informed and believes, and based thereon, alleges that Defendant
26 Pepper's sold infringing eyewear to various distributors, retailers, and retail
27 customers, including within this judicial district.
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1 23. Oakley is the owner by assignment of U.S. Patent No. D384,364, duly
2 and lawfully issued on September 30, 1997, describing and claiming the invention
3 entitled "Eyeglass Frame Front," which protects the claimed design embodied by
4 Oakley's *M Frame* line of eyeglasses. A correct copy of U.S. Patent No. D384,364
5 is attached hereto as Exhibit 10.

6 24. Oakley is informed and believes, and thereupon alleges that
7 Defendant Pepper's is selling eyewear that incorporates the patented design of
8 Oakley's U.S. Patent No. D384,364. In particular, Oakley alleges that Pepper's
9 "Chili's Player" eyewear model embodies the subject matter claimed in Oakley's
10 patent referred to above without any license thereunder, and thereby infringes this
11 patent. Oakley is informed and believes, and based thereon, alleges that Defendant
12 Pepper's sold infringing eyewear to various distributors, retailers, and retail
13 customers, including within this judicial district.

14 25. Oakley is the owner by assignment of U.S. Patent No. D399,866, duly
15 and lawfully issued on October 20, 1998, describing and claiming the invention
16 entitled "Eyeglass Component," which protects the claimed design embodied by
17 Oakley's *M Frame* line of eyeglasses. A correct copy of U.S. Patent No. D399,866
18 is attached hereto as Exhibit 11.

19 26. Oakley is informed and believes, and thereupon alleges that
20 Defendant Pepper's is selling eyewear that incorporates the patented design of
21 Oakley's U.S. Patent No. D399,866. In particular, Oakley alleges that Pepper's
22 "Chili's Player" eyewear model embodies the subject matter claimed in Oakley's
23 patent referred to above without any license thereunder, and thereby infringes this
24 patent. Oakley is informed and believes, and based thereon, alleges that Defendant
25 Pepper's sold infringing eyewear to various distributors, retailers, and retail
26 customers, including within this judicial district.
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1 27. Oakley is the owner by assignment of U.S. Patent No. D399,519, duly
2 and lawfully issued on October 13, 1998, describing and claiming the invention
3 entitled "Eyeglasses," which protects the claimed design embodied by Oakley's *M*
4 *Frame* line of eyeglasses. A correct copy of U.S. Patent No. D399,519 is attached
5 hereto as Exhibit 12.

6 28. Oakley is informed and believes, and thereupon alleges that
7 Defendant Pepper's is selling eyewear that incorporates the patented design of
8 Oakley's U.S. Patent No. D399,519. In particular, Oakley alleges that Pepper's
9 "Chili's Player" eyewear model embodies the subject matter claimed in Oakley's
10 patent referred to above without any license thereunder, and thereby infringes this
11 patent. Oakley is informed and believes, and based thereon, alleges that Defendant
12 Pepper's sold infringing eyewear to various distributors, retailers, and retail
13 customers, including within this judicial district.

14 29. Defendant has received written notice of Oakley's proprietary rights in
15 its patents by way of this lawsuit. Further, Defendant has received constructive
16 notice of Oakley's patents as Oakley caused its patents to be placed plainly on the
17 product and/or packaging. Despite actual and constructive knowledge, Defendant
18 continues to infringe Oakley's patent rights. On information and belief, such
19 infringement by Defendant must have been willful and wanton.

20 30. Oakley is informed and believes and thereupon alleges that the sale of
21 the unauthorized, infringing eyewear has resulted in lost sales, reduced the
22 business and profit of Oakley, and greatly injured the general reputation of Oakley
23 due to the inferior quality of the copies, all to Oakley's damage in an amount not
24 yet fully determined.

25 31. The exact amount of profits realized by Defendant, as a result of its
26 infringing activities, are presently unknown to Oakley, as are the exact amount of
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1 damages suffered by Oakley as a result of said activities. These profits and
2 damages cannot be accurately ascertained without an accounting.

3 **FIRST CLAIM FOR RELIEF**

4 **Patent Infringement (U.S. Patent No. 5,387,949)**

5 32. The allegations of paragraphs 1 through 31 are repelled and realleged as
6 though fully set forth herein.

7 33. This is a claim for patent infringement, and arises under 35 U.S.C. §§
8 271 and 281 against Defendant Pepper's.

9 34. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

10 35. Oakley is the owner of U.S. Patent No. 5,387,949, which protects the
11 invention of an eyeglass connection device, such as embodied by Oakley's *Half*
12 *Jacket* and *Flak Jacket* products, among others. A true and correct copy of U.S.
13 Patent No. 5,387,949 is attached hereto as Exhibit 1. By statute, the patent is
14 presumed to be valid and enforceable under 35 U.S.C. § 282.

15 36. Defendant, through its agents, employees and servants, manufactured,
16 imported, offered to sell, and/or sold, without any rights or license, eyewear that
17 falls within the scope and claims of U.S. Patent No. 5,387,949, including but not
18 limited to those set out above.

19 37. Oakley is informed and believes, and thereupon alleges, that
20 Defendant has willfully infringed upon Oakley's exclusive rights under the '949
21 patent, with full notice and knowledge thereof. Defendant sold or is selling such
22 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
23 unless restrained therefrom by this court, all to the great loss and injury of Oakley.

24 38. Oakley is informed and believes, and thereupon alleges, that
25 Defendant has derived, received, and will continue to derive and receive from its
26 acts of infringement, gains, profits and advantages in an amount not presently
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1 known to Oakley. By reason of these acts of infringement, Oakley has been, and
2 will continue to be, greatly damaged.

3 39. Defendant will continue to infringe U.S. Patent No. 5,387,949 to the
4 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
5 at law unless the Defendant is enjoined by this court.

6 **SECOND CLAIM FOR RELIEF**

7 **Patent Infringement (U.S. Patent No. 5,638,145)**

8 40. The allegations of paragraphs 1 through 31 are repelled and realleged as
9 though fully set forth herein.

10 41. This is a claim for patent infringement, and arises under 35 U.S.C. §§
11 271 and 281 against Defendant Pepper's.

12 42. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

13 43. Oakley is the owner of U.S. Patent No. 5,638,145, which protects
14 invention of dual vented eyeglass lenses embodied by Oakley's *Jawbone* products,
15 among others. A true and correct copy of U.S. Patent No. 5,638,145 is attached
16 hereto as Exhibit 2. By statute, the patent is presumed to be valid and enforceable
17 under 35 U.S.C. § 282.

18 44. Defendant, through its agents, employees and servants, manufactured,
19 imported, offered to sell, and/or sold, without any rights or license, eyewear that
20 falls within the scope and claims of U.S. Patent No. 5,638,145, including but not
21 limited to those set out above.

22 45. Oakley is informed and believes, and thereupon alleges, that
23 Defendant has willfully infringed upon Oakley's exclusive rights under the '145
24 patent, with full notice and knowledge thereof. Defendant sold or is selling such
25 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
26 unless restrained therefrom by this court, all to the great loss and injury of Oakley.
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1 46. Oakley is informed and believes, and thereupon alleges, that
2 Defendant has derived, received, and will continue to derive and receive from its
3 acts of infringement, gains, profits and advantages in an amount not presently
4 known to Oakley. By reason of these acts of infringement, Oakley has been, and
5 will continue to be, greatly damaged.

6 47. Defendant will continue to infringe U.S. Patent No. 5,638,145 to the
7 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
8 at law unless the Defendant is enjoined by this court.

9 **THIRD CLAIM FOR RELIEF**

10 **Patent Infringement (U.S. Patent No. D554,689)**

11 48. The allegations of paragraphs 1 through 31 are repled and realleged
12 as though fully set forth herein.

13 49. This is a claim for patent infringement, and arises under 35 U.S.C. §§
14 271 and 281 against Defendant Pepper's.

15 50. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

16 51. Oakley is the owner of U.S. Patent No. D554,689, which protects the
17 design of an eyeglass frame embodied by Oakley's *Gascan* products, among
18 others. A true and correct copy of U.S. Patent No. D554,689 is attached hereto as
19 Exhibit 3. By statute, the patent is presumed to be valid and enforceable under 35
20 U.S.C. § 282.

21 52. Defendant, through its agents, employees and servants, manufactured,
22 imported, offered to sell, and/or sold, without any rights or license, eyewear that
23 falls within the scope and claim of U.S. Patent No. D554,689, including but not
24 limited to those set out above.

25 53. Oakley is informed and believes, and thereupon alleges, that
26 Defendant has willfully infringed upon Oakley's exclusive rights under the '689
27 patent, with full notice and knowledge thereof. Defendant sold or is selling such
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1 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
2 unless restrained therefrom by this court, all to the great loss and injury of Oakley.

3 54. Oakley is informed and believes, and thereupon alleges, that
4 Defendant has derived, received, and will continue to derive and receive from its
5 acts of infringement, gains, profits and advantages in an amount not presently
6 known to Oakley. By reason of these acts of infringement, Oakley has been, and
7 will continue to be, greatly damaged.

8 55. Defendant will continue to infringe U.S. Patent No. D554,689 to the
9 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
10 at law unless the Defendant is enjoined by this court.

11 **FOURTH CLAIM FOR RELIEF**

12 **Patent Infringement (U.S. Patent No. D547,794)**

13 56. The allegations of paragraphs 1 through 31 are repled and realleged as
14 though fully set forth herein.

15 57. This is a claim for patent infringement, and arises under 35 U.S.C. §§
16 271 and 281 against Defendant Pepper's.

17 58. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

18 59. Oakley is the owner of U.S. Patent No. D547,794, which protects the
19 design of eyeglasses embodied by Oakley's *Gascan* products, among others. A
20 true and correct copy of U.S. Patent No. D547,794 is attached hereto as Exhibit 4.
21 By statute, the patent is presumed to be valid and enforceable under 35 U.S.C. §
22 282.
23

24 60. Defendant, through its agents, employees and servants, manufactured,
25 imported, offered to sell, and/or sold, without any rights or license, eyewear that
26 falls within the scope and claim of U.S. Patent No. D547,794, including but not
27 limited to those set out above.
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61. Oakley is informed and believes, and thereupon alleges, that Defendant has willfully infringed upon Oakley's exclusive rights under the '794 patent, with full notice and knowledge thereof. Defendant sold or is selling such infringing eyewear, has refused to cease the sale thereof, and will continue to do so unless restrained therefrom by this court, all to the great loss and injury of Oakley.

62. Oakley is informed and believes, and thereupon alleges, that Defendant has derived, received, and will continue to derive and receive from its acts of infringement, gains, profits and advantages in an amount not presently known to Oakley. By reason of these acts of infringement, Oakley has been, and will continue to be, greatly damaged.

63. Defendant will continue to infringe U.S. Patent No. D547,794 to the great and irreparable injury of Oakley, for which Oakley has no adequate remedy at law unless the Defendant is enjoined by this court.

FIFTH CLAIM FOR RELIEF

Patent Infringement (U.S. Patent No. D556,818)

64. The allegations of paragraphs 1 through 31 are replied and realleged as though fully set forth herein.

65. This is a claim for patent infringement, and arises under 35 U.S.C. §§ 271 and 281 against Defendant Pepper's.

66. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

67. Oakley is the owner of U.S. Patent No. D556,818, which protects the design of eyeglass components embodied by Oakley's *Gascan* products, among others. A true and correct copy of U.S. Patent No. D556,818 is attached hereto as Exhibit 5. By statute, the patent is presumed to be valid and enforceable under 35 U.S.C. § 282.

68. Defendant, through its agents, employees and servants, manufactured, imported, offered to sell, and/or sold, without any rights or license, eyewear that

1 falls within the scope and claim of U.S. Patent No. D556,818, including but not
2 limited to those set out above.

3 69. Oakley is informed and believes, and thereupon alleges, that
4 Defendant has willfully infringed upon Oakley's exclusive rights under the '818
5 patent, with full notice and knowledge thereof. Defendant sold or is selling such
6 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
7 unless restrained therefrom by this court, all to the great loss and injury of Oakley.

8 70. Oakley is informed and believes, and thereupon alleges, that
9 Defendant has derived, received, and will continue to derive and receive from its
10 acts of infringement, gains, profits and advantages in an amount not presently
11 known to Oakley. By reason of these acts of infringement, Oakley has been, and
12 will continue to be, greatly damaged.

13 71. Defendant will continue to infringe U.S. Patent No. D556,818 to the
14 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
15 at law unless the Defendant is enjoined by this court.

16 **SIXTH CLAIM FOR RELIEF**

17 **Patent Infringement (U.S. Patent No. D463,478)**

18 72. The allegations of paragraphs 1 through 31 are replied and realleged as
19 though fully set forth herein.

20 73. This is a claim for patent infringement, and arises under 35 U.S.C. §§
21 271 and 281 against Defendant Pepper's.

22 74. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

23 75. Oakley is the owner of U.S. Patent No. D463,478, which protects the
24 design of an eyeglass and eyeglass components embodied by Oakley's *Scar*
25 products, among others. A true and correct copy of U.S. Patent No. D463,478 is
26 attached hereto as Exhibit 6. By statute, the patent is presumed to be valid and
27 enforceable under 35 U.S.C. § 282.
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1 76. Defendant, through its agents, employees and servants, manufactured,
2 imported, offered to sell, and/or sold, without any rights or license, eyewear that
3 falls within the scope and claim of U.S. Patent No. D463,478, including but not
4 limited to those set out above.

5 77. Oakley is informed and believes, and thereupon alleges, that
6 Defendant has willfully infringed upon Oakley's exclusive rights under the '478
7 patent, with full notice and knowledge thereof. Defendant sold or is selling such
8 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
9 unless restrained therefrom by this court, all to the great loss and injury of Oakley.

10 78. Oakley is informed and believes, and thereupon alleges, that
11 Defendant has derived, received, and will continue to derive and receive from its
12 acts of infringement, gains, profits and advantages in an amount not presently
13 known to Oakley. By reason of these acts of infringement, Oakley has been, and
14 will continue to be, greatly damaged.

15 79. Defendant will continue to infringe U.S. Patent No. D463,478 to the
16 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
17 at law unless the Defendant is enjoined by this court.

18
19 **SEVENTH CLAIM FOR RELIEF**

20 **Patent Infringement (U.S. Patent No. 5,054,903)**

21 80. The allegations of paragraphs 1 through 31 are replied and realleged as
22 though fully set forth herein.

23 81. This is a claim for patent infringement, and arises under 35 U.S.C. §§
24 271 and 281 against Defendant Pepper's.

25 82. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

26 83. Oakley is the owner of U.S. Patent No. 5,054,903, which protects the
27 invention of an eyewear traction device. A true and correct copy of U.S. Patent
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1 No. 5,054,903 is attached hereto as Exhibit 7. By statute, the patent is presumed to
2 be valid and enforceable under 35 U.S.C. § 282.

3 84. Defendant, through its agents, employees and servants, manufactured,
4 imported, offered to sell, and/or sold, without any rights or license, eyewear that
5 falls within the scope and claims of U.S. Patent No. 5,054,903, including but not
6 limited to those set out above, prior to the patent's expiration.

7 85. Oakley is informed and believes, and thereupon alleges, that
8 Defendant has willfully infringed upon Oakley's exclusive rights under the '903
9 patent, with full notice and knowledge thereof. Defendant sold such infringing
10 eyewear to the great loss and injury of Oakley.

11 86. Oakley is informed and believes, and thereupon alleges, that
12 Defendant derived and received from its acts of infringement, gains, profits and
13 advantages, prior to the expiration of the '903 Patent, in an amount not presently
14 known to Oakley. By reason of these acts of infringement, Oakley has been
15 greatly damaged.

16 **EIGHTH CLAIM FOR RELIEF**

17 **Patent Infringement (U.S. Patent No. 5,137,342)**

18 87. The allegations of paragraphs 1 through 31 are repled and realleged as
19 though fully set forth herein.

20 88. This is a claim for patent infringement, and arises under 35 U.S.C. §§
21 271 and 281 against Defendant Pepper's.

22 89. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

23 90. Oakley is the owner of U.S. Patent No. 5,137,342, which protects the
24 invention of an eyewear traction device. A true and correct copy of U.S. Patent
25 No. 5,137,342 is attached hereto as Exhibit 8. By statute, the patent is presumed to
26 be valid and enforceable under 35 U.S.C. § 282.
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91. Defendant, through its agents, employees and servants, manufactured, imported, offered to sell, and/or sold, without any rights or license, eyewear that falls within the scope and claims of U.S. Patent No. 5,137,342, including but not limited to those set out above, prior to the patent's expiration.

92. Oakley is informed and believes, and thereupon alleges, that Defendant has willfully infringed upon Oakley's exclusive rights under the '342 patent, with full notice and knowledge thereof. Defendant sold such infringing eyewear to the great loss and injury of Oakley.

93. Oakley is informed and believes, and thereupon alleges, that Defendant derived and received from its acts of infringement, gains, profits and advantages in an amount not presently known to Oakley. By reason of these acts of infringement, Oakley has been greatly damaged.

NINTH CLAIM FOR RELIEF

Patent Infringement (U.S. Patent No. D333,145)

94. The allegations of paragraphs 1 through 31 are replied and realleged as though fully set forth herein.

95. This is a claim for patent infringement, and arises under 35 U.S.C. §§ 271 and 281 against Defendant Pepper's.

96. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

97. Oakley is the owner of U.S. Patent No. D333,145, which protects the design of a unitary eyeglass lens embodied by Oakley's "M Frame" products. A true and correct copy of U.S. Patent No. D333,145 is attached hereto as Exhibit 9. By statute, the patent is presumed to be valid and enforceable under 35 U.S.C. § 282.

98. Defendant, through its agents, employees and servants, manufactured, imported, offered to sell, and/or sold, without any rights or license, eyewear that

1 falls within the scope and claim of U.S. Patent No. D333,145, including but not
2 limited to those set out above.

3 99. Oakley is informed and believes, and thereupon alleges, that
4 Defendant has willfully infringed upon Oakley's exclusive rights under the '145
5 patent, with full notice and knowledge thereof. Defendant sold or is selling such
6 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
7 unless restrained therefrom by this court, all to the great loss and injury of Oakley.

8 100. Oakley is informed and believes, and thereupon alleges, that
9 Defendant has derived, received, and will continue to derive and receive from its
10 acts of infringement, gains, profits and advantages in an amount not presently
11 known to Oakley. By reason of these acts of infringement, Oakley has been, and
12 will continue to be, greatly damaged.

13 101. Defendant will continue to infringe U.S. Patent No. D333,145 to the
14 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
15 at law unless the Defendant is enjoined by this court.

16 **TENTH CLAIM FOR RELIEF**

17 **Patent Infringement (U.S. Patent No. D384,364)**

18 102. The allegations of paragraphs 1 through 31 are replied and realleged as
19 though fully set forth herein.

20 103. This is a claim for patent infringement, and arises under 35 U.S.C. §§
21 271 and 281 against Defendant Pepper's.

22 104. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

23 105. Oakley is the owner of U.S. Patent No. D384,364, which protects the
24 design of an eyeglass frame front embodied by Oakley's "M Frame" products. A
25 true and correct copy of U.S. Patent No. D384,364 is attached hereto as Exhibit 10.
26 By statute, the patent is presumed to be valid and enforceable under 35 U.S.C. §
27 282.
28

1 106. Defendant, through its agents, employees and servants, manufactured,
2 imported, offered to sell, and/or sold, without any rights or license, eyewear that
3 falls within the scope and claim of U.S. Patent No. D384,364, including but not
4 limited to those set out above.

5 107. Oakley is informed and believes, and thereupon alleges, that
6 Defendant has willfully infringed upon Oakley's exclusive rights under the '364
7 patent, with full notice and knowledge thereof. Defendant sold or is selling such
8 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
9 unless restrained therefrom by this court, all to the great loss and injury of Oakley.

10 108. Oakley is informed and believes, and thereupon alleges, that
11 Defendant has derived, received, and will continue to derive and receive from its
12 acts of infringement, gains, profits and advantages in an amount not presently
13 known to Oakley. By reason of these acts of infringement, Oakley has been, and
14 will continue to be, greatly damaged.

15 109. Defendant will continue to infringe U.S. Patent No. D384,364 to the
16 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
17 at law unless the Defendant is enjoined by this court.

18
19 **ELEVENTH CLAIM FOR RELIEF**

20 **Patent Infringement (U.S. Patent No. D399,866)**

21 110. The allegations of paragraphs 1 through 31 are repelled and realleged as
22 though fully set forth herein.

23 111. This is a claim for patent infringement, and arises under 35 U.S.C. §§
24 271 and 281 against Defendant Pepper's.

25 112. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.

26 113. Oakley is the owner of U.S. Patent No. D399,866, which protects the
27 design of an eyeglass component embodied by Oakley's "M Frame" products. A
28 true and correct copy of U.S. Patent No. D399,866 is attached hereto as Exhibit 11.

1 By statute, the patent is presumed to be valid and enforceable under 35 U.S.C. §
2 282.

3 114. Defendant, through its agents, employees and servants, manufactured,
4 imported, offered to sell, and/or sold, without any rights or license, eyewear that
5 falls within the scope and claim of U.S. Patent No. D399,866, including but not
6 limited to those set out above.

7 115. Oakley is informed and believes, and thereupon alleges, that
8 Defendant has willfully infringed upon Oakley's exclusive rights under the '866
9 patent, with full notice and knowledge thereof. Defendant sold or is selling such
10 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
11 unless restrained therefrom by this court, all to the great loss and injury of Oakley.
12

13 116. Oakley is informed and believes, and thereupon alleges, that
14 Defendant has derived, received, and will continue to derive and receive from its
15 acts of infringement, gains, profits and advantages in an amount not presently
16 known to Oakley. By reason of these acts of infringement, Oakley has been, and
17 will continue to be, greatly damaged.

18 117. Defendant will continue to infringe U.S. Patent No. D399,866 to the
19 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
20 at law unless the Defendant is enjoined by this court.

21 **TWELFTH CLAIM FOR RELIEF**

22 **Patent Infringement (U.S. Patent No. D399,519)**

23 118. The allegations of paragraphs 1 through 31 are replied and realleged as
24 though fully set forth herein.

25 119. This is a claim for patent infringement, and arises under 35 U.S.C. §§
26 271 and 281 against Defendant Pepper's.

27 120. Jurisdiction is founded upon 28 U.S.C. §§ 1331 and 1338.
28

1 121. Oakley is the owner of U.S. Patent No. D399,519, which protects the
2 design of eyeglasses embodied by Oakley's "M Frame" products. A true and
3 correct copy of U.S. Patent No. D399,519 is attached hereto as Exhibit 12. By
4 statute, the patent is presumed to be valid and enforceable under 35 U.S.C. § 282.

5 122. Defendant, through its agents, employees and servants, manufactured,
6 imported, offered to sell, and/or sold, without any rights or license, eyewear that
7 falls within the scope and claim of U.S. Patent No. D399,519, including but not
8 limited to those set out above.

9 123. Oakley is informed and believes, and thereupon alleges, that
10 Defendant has willfully infringed upon Oakley's exclusive rights under the '519
11 patent, with full notice and knowledge thereof. Defendant sold or is selling such
12 infringing eyewear, has refused to cease the sale thereof, and will continue to do so
13 unless restrained therefrom by this court, all to the great loss and injury of Oakley.

14 124. Oakley is informed and believes, and thereupon alleges, that
15 Defendant has derived, received, and will continue to derive and receive from its
16 acts of infringement, gains, profits and advantages in an amount not presently
17 known to Oakley. By reason of these acts of infringement, Oakley has been, and
18 will continue to be, greatly damaged.

19 125. Defendant will continue to infringe U.S. Patent No. D399,519 to the
20 great and irreparable injury of Oakley, for which Oakley has no adequate remedy
21 at law unless the Defendant is enjoined by this court.

22 WHEREFORE, Plaintiff Oakley, Inc. prays as follows:

23 1. That Defendant be adjudicated to have infringed Oakley's U.S. Patent
24 Nos. 5,387,949, 5,638,145, D554,689, D463,478, 5,054,903, 5,137,342, D333,145,
25 D384,364, D399,866, D399,519, D547,794, and D556,818, and that the patents are
26 valid, enforceable, and owned by Oakley;
27
28

1 2. That Defendant, its agents, servants, employees, officers, directors,
2 and attorneys and all persons in active concert and participation with them, be
3 forthwith preliminarily and thereafter permanently enjoined from making, using or
4 selling any eyewear which infringe United States Patent Nos. 5,387,949,
5 5,638,145, D554,689, D463,478, D333,145, D384,364, D399,866, D399,519,
6 D547,794, and D556,818;

7 3. For an assessment and award of damages against Defendant Pepper's
8 in an amount no less than lost profits, reasonable royalty, or Defendant's profits
9 derived from its infringement of Plaintiff's patent rights, all at Oakley's election
10 subject to proof at trial, pursuant to 35 U.S.C. §§ 284 and 289;

11 4. For an order requiring Defendant to deliver up and destroy all
12 infringing eyewear;

13 5. That an award of reasonable costs, expenses, and attorney's fees be
14 awarded against Defendant pursuant to 35 U.S.C. § 285;

15 6. That Defendant be directed to file with this court and serve upon
16 Oakley within 30 days after the service of the injunction, a report in writing under
17 oath, setting forth in detail the manner and form in which Defendant has complied
18 with the injunction; and
19

20 7. For such other relief as the Court may deem appropriate.

21 DATED: 11/19/09

WEEKS, KAUFMAN, NELSON & JOHNSON

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GREGORY K. NELSON

Attorney for Plaintiff, Oakley, Inc.

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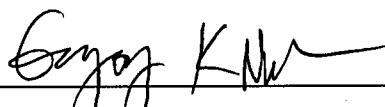
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JURY DEMAND

Plaintiff Oakley, Inc. hereby requests a trial by jury in this matter.

DATED: 11/19/09

WEEKS, KAUFMAN, NELSON & JOHNSON



GREGORY K. NELSON

Attorney for Plaintiff, Oakley, Inc.



US005387949A

United States Patent [19]**Tackles**[11] **Patent Number:** **5,387,949**[45] **Date of Patent:** **Feb. 7, 1995****[54] EYEGLASS CONNECTION DEVICE****[75] Inventor:** George Tackles, Lake Elsinore, Calif.**[73] Assignee:** Oakley, Inc., Irvine, Calif.**[21] Appl. No.:** 825,476**[22] Filed:** Jan. 29, 1992**[51] Int. Cl.⁶** G02C 5/14**[52] U.S. Cl.** 351/121; 351/44;

351/110; 351/140

[58] Field of Search 351/121, 110, 111, 140,
351/41, 158, 153, 141, 142, 149, 44**[56] References Cited****U.S. PATENT DOCUMENTS**

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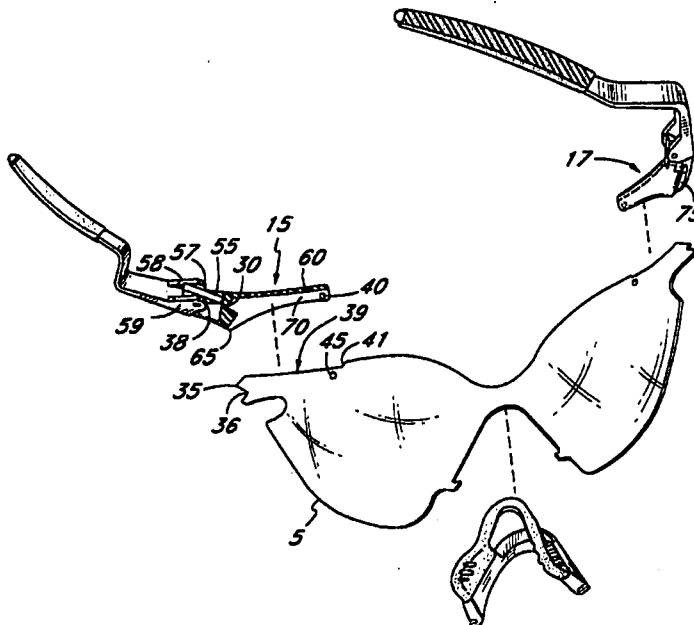
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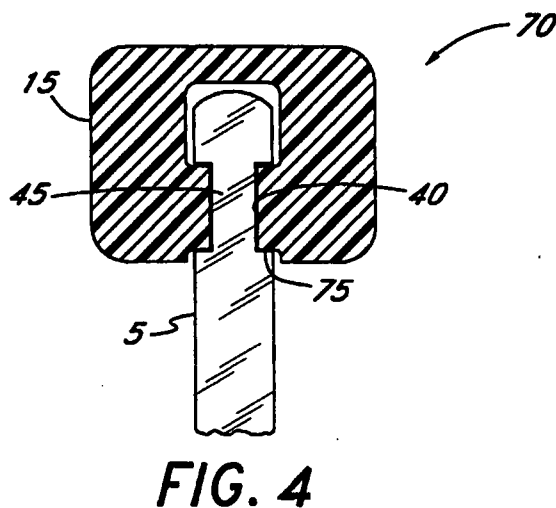
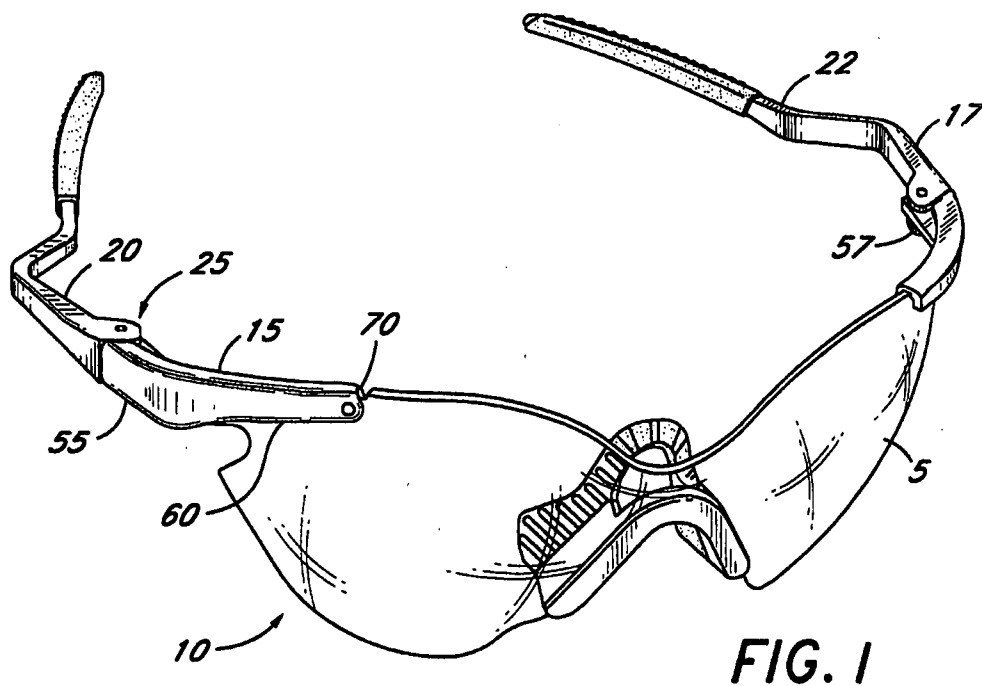
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Primary Examiner—William L. Sikes**Assistant Examiner**—Hung Xuan Dang**Attorney, Agent, or Firm**—Knobbe, Martens, Olson & Bear**[57]****ABSTRACT**

Disclosed is a connector for use in connecting a lens to an earstem, comprising a main body which contains a hinge end and a lens receiving end. The connector contains a channel for receiving a portion of the lens. The pivot end of the channel contains a recess whereas the locking end of the channel contains a projection. The hinge end of the connector is attached to the earstem by a releasable pin connection. The lens is connected to the connector by inserting a lens into the channel where the lens is pivoted at the pivot end and then the connector is snapped down to cover over the top edge of the lens. Variations, component parts, and a wire frame dual lens detachable component system are also disclosed.

18 Claims, 3 Drawing Sheets



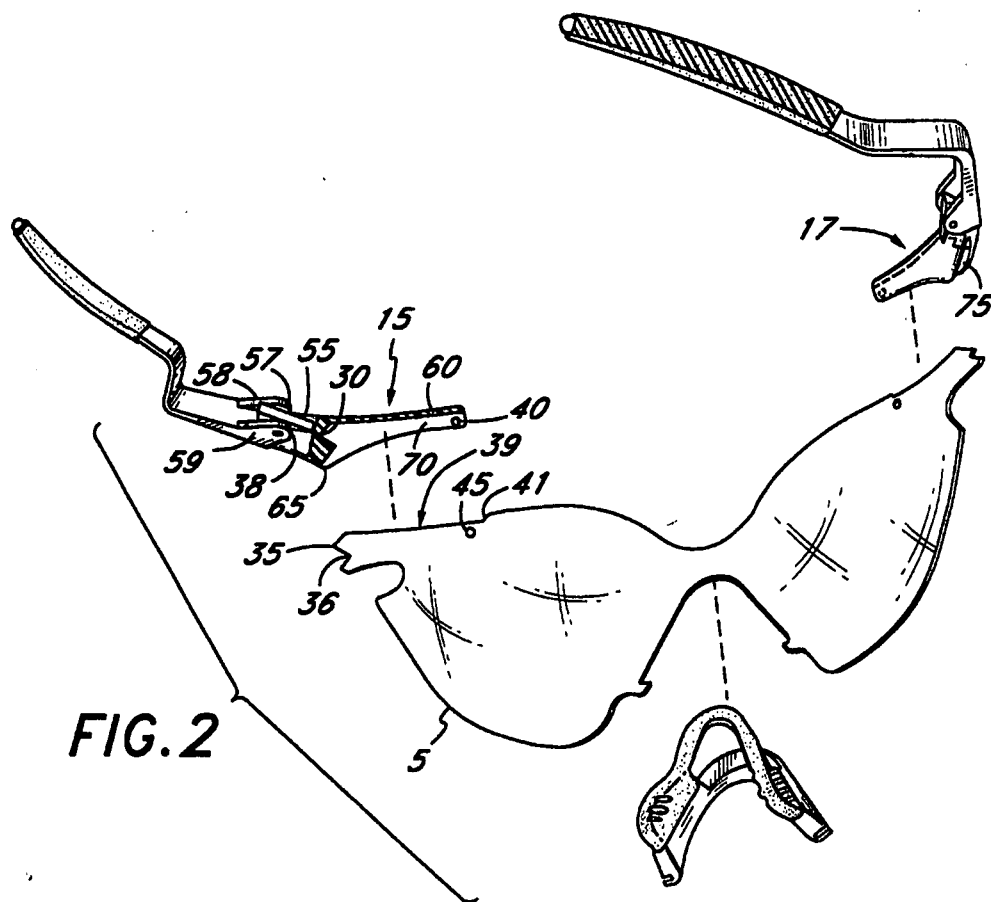


FIG. 2

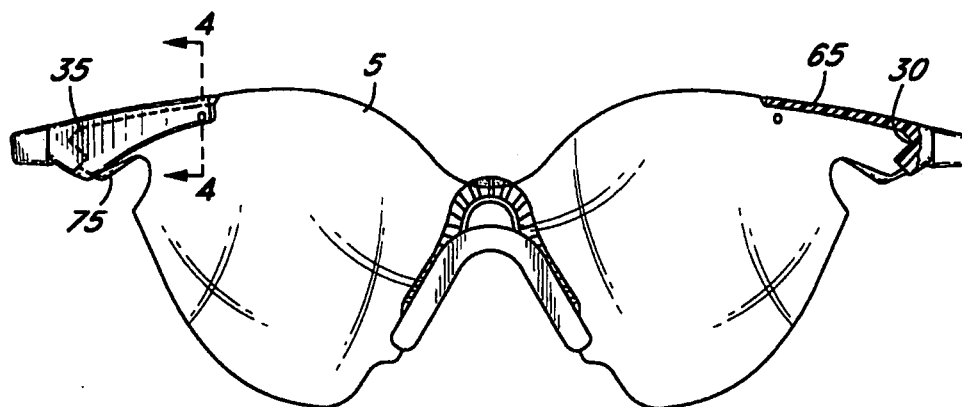


FIG. 3

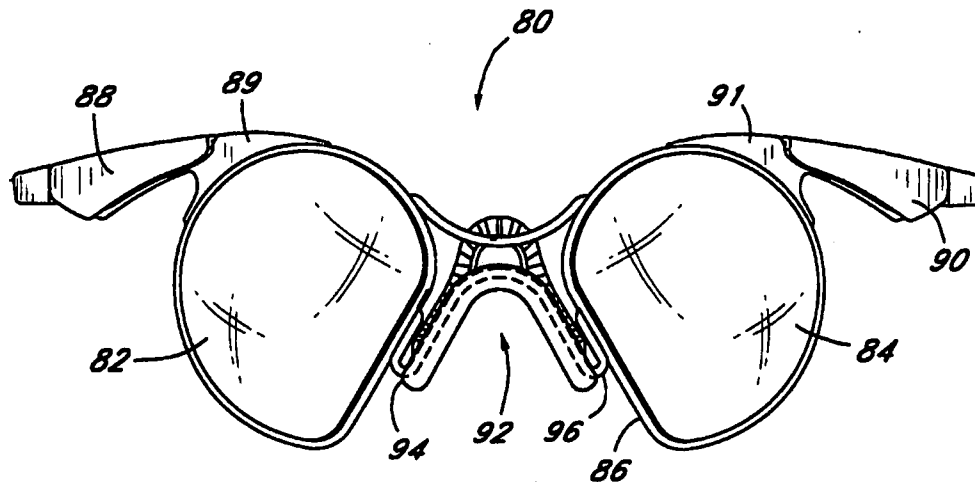


FIG. 5

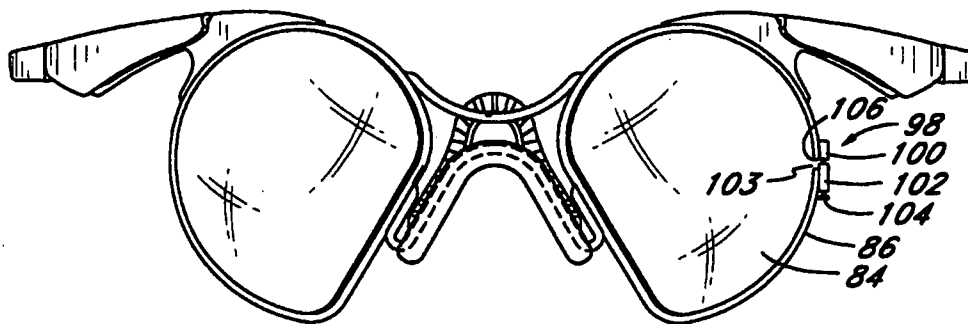


FIG. 6

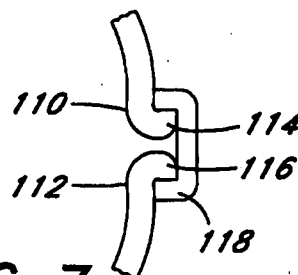


FIG. 7

EYEGLASS CONNECTION DEVICE

BACKGROUND OF THE INVENTION

The present invention relates to a connector for connecting an eyeglass lens to an earstem. The connector enables the user to interchange different earstems with different lenses, thus creating different color or configuration combinations.

This invention can be used with any shape of lens or earstem that is designed to accept the connector. In addition, the connector of the present invention is useable with both dual lens and unitary lens eyeglass systems. The connector is easily attachable and removable from the top, side or bottom edge of the lens, yet provides a sturdy connection when locked into position.

Unitary lens eyeglasses having interchangeable lenses are known in the art. See, for example, U.S. Pat. Nos. 4,824,233 and 4,867,550, both to James H. Jannard. The upper frame in these prior devices generally comprises a bar extending across the top edge of the lens and connecting to both earstems.

In order to switch lenses, the top edge of the new lens typically has a complementary shape to a slot extending the length of the upper frame. Thus, the shape of the top edge of the lens was generally dictated by the unique shape of the frame.

Thus, there remains a need for a connector that allows for the quick and easy interchange of earstems or lenses that will be secure when in the locked position, but that minimizes the need for structural correspondence between the edge of the lens and the lens contacting portion of the frame, and which does not require a frame along the entire top edge of the lens.

SUMMARY OF THE INVENTION

There has been provided, in accordance with one aspect of the present invention, an eyeglass connection device that connects the earstem to the lens, which enables the user to interchange the lens or earstem. There are two connectors in a standard eyeglass assembly, each connecting an earstem to the lens. Thus, one may change both earstems or either one of them.

The connector comprises a main body having a lateral end and a medial end, and a lens receiving channel extending from the medial end in the direction of the lateral end. A first interlock structure is provided in the lateral end of the channel, and a second interlock structure is spaced apart from the lateral end of the channel.

Preferably, the first interlock structure comprises a locking surface for engaging a corresponding locking surface on a lens for resisting vertical upward motion of the lateral end of the connector with respect to the lens. The locking surface on the first interlock structure preferably comprises a ramped edge of a projection on the connector. The projection is preferably integrally molded on the connector, and extends within the channel in the medial direction.

The second interlock structure comprises a locking surface for releasably engaging a corresponding locking surface on the lens. Preferably, the second interlock structure comprises at least one projection within the channel for engaging a recess in the lens. More preferably, the second interlock structure comprises first and second projections on the connector extending towards each other from opposite sides of the channel for engaging opposing recesses in the lens. Alternatively, the second interlock structure comprises at least one recess

in the channel for receiving at least one projection on the lens.

In accordance with a further aspect of the present invention, there is provided a sunglass comprising a unitary transparent lens adapted to extend in a curved pane in the path of the wearer's left and right eye fields of vision, said lens having at least one connector extending along a portion of an edge of the lens, the connector having an elongated slot formed therein to removably receive a portion of the edge of the lens.

At least one projection is provided on the lens to interlock within a recess on the connector at a first end of the connector. A locking surface is provided on the connector, spaced apart from the recess, for releasably engaging a locking surface on the lens.

Preferably, the connector extends no more than about one-third of the way across the top edge of the lens. More preferably, the connector extends no more than about one-fifth of the way across the top of the lens. Alternatively, the connector extends along at least a portion of either the lateral edge of the lens or the bottom edge of the lens. In a further alternative, the connector connects to a flange or other extension of a frame for the lens.

In accordance with a further aspect of the present invention, there is provided a method of removably securing an earstem to a lens or frame in a pair of eyeglasses of the type having a right and left lens region, a nose piece and right and left earstems. The right and left lens regions are generally defined by a horizontal axis which extends from side to side throughout the left and right lens regions, and which is longer than a vertical axis which extends generally perpendicular to the horizontal axis.

The method comprises the steps of providing a frame or lens having a first and a second interlock structure thereon, and providing a connector having a slot therein for receiving the lens, said connector having a first and second complementary interlock structure thereon.

The connector is advanced along the horizontal axis until the first interlock structure of the connector is in contact with the first interlock structure on the lens. The second interlock structure on the connector is thereafter rotated downward, generally along the vertical axis, until the second interlock structure on the connector engages the second interlock structure on the lens.

In accordance with a further aspect of the present invention, there is provided a lens for assembly using the connectors of the present invention into an eyeglass of the type suitable for participation in active sports such as biking, skiing and the like.

The lens comprises a unitary pane having an upper edge and a lower edge, the lower edge having a nose piece opening formed therein for cooperating with the connectors and earstems to mount the lens on the nose of the wearer. The nose piece opening has an upper extremity, and the distance separating the upper extremity of the nose piece and the upper edge of the pane being defined as D1, and the distance separating the upper edge of the pane and the lower edge of the pane is defined as D2. D1 is in the range between about $\frac{1}{4}$ inch and $1\frac{3}{4}$ inches, and D2 is in the range of from about $1\frac{1}{2}$ inches to about $2\frac{3}{4}$ inches.

The lens has an arcuate cross-sectional configuration in a horizontal direction from a first lateral end to a

3

second lateral end, having an arc length within the range of from about 5- $\frac{1}{2}$ inches to about 7 inches.

At least one lateral interlock structure is provided in the upper lateral region of the lens, and at least one medial interlock structure is spaced apart from the lateral interlock structure by no more than about one-half of the arc length of the lens.

Further objects, features and advantages of the present invention will become apparent in the detailed description of the preferred embodiments which follows, when considered together with the attached figures and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front perspective view of a connection device of the present invention as part of an eyewear system;

FIG. 2 is a partial exploded view of the eyewear of FIG. 1, including a partial cut away view of a connection device;

FIG. 3 is a front elevational view of eyewear including connection devices of the present invention, with one connection device in partial cut away view; and

FIG. 4 is a cross-sectional view of a connection device of the present invention taken along line 4-4 of FIG. 3.

FIG. 5 is a front elevational view of a further embodiment of the present invention.

FIG. 6 is a front elevational view of a further embodiment of the present invention.

FIG. 7 is a partial elevational view of a frame closure lock in accordance with the present invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to FIG. 1, there is disclosed in accordance with one aspect of the present invention a unitary lens 5 connected to earstems 20, 22 via connectors 15, 17 to form an eyeglass system 10.

The eyeglass system 10 may comprise either a dual lens system or a unitary lens system. Dual lens systems are well known in the art of prescription glasses, and include a separate right lens and left lens held in place in front of the range of vision of the wearer's right and left eyes by a conventional frame. See, e.g., FIG. 5.

The unitary lens systems utilize a single lens extending throughout both the wearer's left eye and right eye fields of vision. Unitary lenses having a variety of configurations which may be used in combination with the present invention are known in the art. For example, unitary lenses having a configuration which defines a portion of the surface of a cylinder are disclosed in U.S. Pat. No. 4,859,048 to James H. Jannard, which is incorporated herein by reference. Unitary lenses having a configuration which defines a portion of the surface of a toroid are disclosed in U.S. Pat. No. 4,867,550 to James H. Jannard, which is also incorporated herein by reference. In addition, unitary lenses having a configuration which defines a portion of the surface of a sphere, a frusto conical or other geometrical configuration can also be utilized in combination with the connectors of the present invention.

Since both connectors 15, 17 and both earstems 20, 22 are preferably mirror images, respectively, reference will be made to only one connector 15 and one earstem 20 herein. Referring to FIG. 1, connector 15 comprises a hinge end 55 and a lens receiving end 60.

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In the illustrated embodiment, the connector 15 has a lens receiving channel 75 that starts from the lens receiving end 60 and extends through at least a part of the length of the connector 15. The channel 75 has a locking end 70 located at the lens receiving end 60 of the connector 15, and a pivot end 65. See FIG. 2. The terms "locking end" and "pivot end" are used only as descriptive terms for the functioning of the illustrated embodiment, and not as a limitation on the scope of the invention.

The length of the connector 15 and channel 75 can be varied depending upon the desired contact area between the connector 15 and the connector contacting surface 39 of lens 5. Typically, each connector will extend no more than about half way across the top of the lens 5 in a top mount embodiment. Preferably, each connector will extend no more than about a third of the way across lens 5 thereby leaving at least about a third of the upper lens edge exposed. More preferably, connector 15 will extend no more than about one fifth of the arc length of lens 5. Thus, in a lens having an arc length of about 6 inches, each connector contacting surface 39 will have a length within the range of from about $\frac{1}{4}$ inches to about 1- $\frac{1}{4}$ inches.

Preferably, the medial end of the connector contacting surface 39 is defined by a ramp or shoulder 41 corresponding to the thickness of the back wall of the channel 75 so that the upper edge of the installed connector 15 and lens 5 form a generally smooth transition.

Alternatively, the connector 15 can readily be adapted to extend along the lateral edge or bottom edge of the lens 5. In these embodiments, the connector will be releasably retained on the lens by two or more cooperating locking surfaces, as will be discussed in connection with the top mount embodiment, infra.

The hinge end 55 of connector 15 is connected to the earstem 20 via a pin connection 25. In the illustrated embodiment, a flange 57 extends from the main body of the connector 15, and is provided with a pin or recess to cooperate with corresponding structure on the earstem for pivotably securing the earstem 20. The pin connection 25 allows the earstem 20 to be folded inward toward the lens 5 so that the eyeglass 10 will take a more compact shape.

In general, flange 57 is adapted for removable insertion between a pair of generally parallel extensions 58 and 59 on the hinge end of the earstem 20. See, e.g., FIG. 2. Flange 57 in the illustrated embodiment is provided with a pair of opposing pins extending in opposite directions therefrom. Each pin is received in a recess or bore in the corresponding extension 58 or 59. These components are preferably molded or formed from a plastic material that will permit the extensions 58 and 59 to be separated slightly to releasably snap over the pins on flange 57.

Alternatively, the relationships of these components can be reversed in a variety of ways. For example, pins can be provided extending towards each other from the opposing inside surfaces of the extensions 58 and 59 to be received by a bore in the flange 57. The pin connection 25 will not be further described since variations will be readily understood by one of skill in the art in view of the disclosure herein.

Referring to FIG. 2, the lens 5 is provided with a first locking structure such as tooth 35, spaced apart from a second locking structure such as indent 45. The tooth 35 defines a recess 36 on the bottom side thereof for receiv-

ing an interlocking structure such as extension 38 on the connector 15.

Although illustrated as an extension 38 on the connector 15 for engaging a recess 36 on the lens, any of a variety of complementary surface structures on the lens and connector will accomplish the inventive connection. In general, the first locking structure comprises a structure on the lens having a locking surface for resisting vertical upward movement of a corresponding locking surface on the connector 15. This may be accomplished by cooperating projections and indents having a variety of configurations, including interlocking "teeth" pins and recesses, beads and grooves and the like, as will become apparent to one of skill in the art in view of the present disclosure.

For example, the upper edge 39 of the connector receiving portion of the lens 5 can be provided with a plurality of bumps or projections extending generally transversely to the local plane of the lens. Alternatively, a continuous raised bead can extend along the edge 39 of the lens 5. In this embodiment, the inner surface of the channel 75 is provided with at least one recess for cooperating with the raised lens structure to provide a secure friction or interference fit. Installation can then be accomplished by sliding the lens axially into a slot on the connector having a "T" or functionally similar type cross section. Thus, the first and second locking structure can merge into a continuation of the same structure. The connector can additionally be permanently adhered to the lens such as by solvent based adhesives or heat; however, the two components remain removably secured in the preferred embodiment.

Referring to FIGS. 3 and 4, the second locking structure at medial end 70 of the channel 75 contains at least one interlocking structure such as projection 40. The projection 40 snaps into the indent 45 of the lens 5 when the connector 15 is locked into position.

There may be one indent 45 extending partially or completely through the lens, or two located on opposite sides of the lens 5. Indent 45 can take the form of a circular hole, elongate slot, shelf or shoulder formed beneath a ramp or otherwise, as long as a surface is provided for cooperating with the corresponding structure on lens 5 to produce a friction or interference fit.

Accordingly, there may be one projection 40 or there may be two or more located on opposing sides of the interior of the channel 75. The projection 40 can be of any shape generally as long as it has an interference fit with the corresponding locking structure on the lens, such as indent 45. The projection 40 can extend part-way or even all the way along the length of the channel 75 in the form of a ridge, as has been discussed. In this embodiment, the first and second locking structures may be merged into a single elongate or repeating structure. The projection 40 is illustrated as located slightly above the bottom edge of the connector 15, but it can be located exactly on the bottom edge.

As will be apparent in view of the disclosure herein, the interlock structure on the lens cooperates with the corresponding interlock structure on the connector to produce an interference fit which resists both upward rotation of the connector about the tooth 35, and also lateral motion of the connector 15 with respect to the lens 5.

To attach the connector 15 to the lens 5, the tooth 35 of the lens 5 is advanced into the recess 30 of the connector 15 while the longitudinal axis of connector 15 is angled slightly above parallel to surface 39, so that the

lens receiving end 60 is positioned above the connector receiving edge 39 of the lens 5. Once the tooth 35 is positioned in the recess 30, the lens receiving end 60 of the connector 15 can be pivoted down and snapped onto the top edge of the lens 5. The projection 40 of the connector 15 will advance into the indent 45 of the lens 5 to provide an interference fit. Removal is accomplished by the same steps in reverse. Removing the projection 40 from the indent 45 is accomplished by plastic deformation of the material utilized in making the connector 15 as the lens receiving end 60 is rotated upward about the tooth 35.

The order of attachment of the first and second locking structures will depend upon the particular embodiment. For example, if the medial locking structure comprises a projection and recess which are roughly mirror images of the lateral locking structure, either the medial or the lateral end of the connector can be set first.

The connector 15 is preferably molded as an integral unit from any of a variety of plastics conventionally used for detachable component sunglass frames. Alternatively, the slot 75 can be milled as a post molding step. In a unitary lens embodiment, the lens is preferably injection molded from polycarbonate or other conventional material and cut or ground to produce the appropriate profile.

Since the connector 15 is attached to the lens 5 at only a relatively small portion of the top, side or bottom edge of lens 5, the shape of the top edge of the lens may be varied without regard to the shape of an upper frame. This can be advantageous in a variety of circumstances, such as for uses in which it is desirable to minimize obstacles to the range of vision at the upper portion of the lens.

For example, bicyclists tend to look through the uppermost portion of the lens and can be distracted or limited by an upper frame. In addition, the range of vision for each eye at the top of the field of vision does not necessarily follow a uniform curve having a continuous single radius. Thus, positioning a single arcuate upper frame sufficiently high that it optimizes the field of view can result in the use of unnecessary lens and frame material in regions where it extends beyond the upper range of vision.

By eliminating the need for a full upper frame, the present invention permits contouring of the upper edge of the lens in a manner that minimizes weight while maximizing protection of the wearer's full field of vision, and at the same time retaining all of the advantages of rapid interchangeability of components without the use of tools.

Referring to FIG. 5, there is disclosed a further embodiment in accordance with the present invention. A wire frame pair of eyeglasses 80 is disclosed, having a right lens 82 and a left lens 84 disposed in a wire frame 86. In a preferred embodiment, lenses 82 and 84 are removably disposed in the frame 86 to permit selective interchanging of lenses, as will be discussed.

Wire frame 86 is provided with a right mounting flange 89 and left mounting flange 91 for receiving connectors 88 and 90, respectively. Preferably, connectors 88 and 90 are removably secured to flanges 89 and 91, in the same manner as has been discussed in connection with FIGS. 1-4, supra.

Flanges 89 and 91 may be constructed of any of a variety of materials having sufficient structural strength to accomplish the intended function. However, in a preferred embodiment, the flanges 89 and 91 comprise a

metal which is bondable to the metal used for the construction of the frame 86. A wide variety of metals are known in the art which may be utilized for the present purposes, including titanium, aluminum, nickel silver alloys, stainless steel, brass and various non-metal composites. These metals or other materials may be drawn into wire, or stamped from sheet stock, or otherwise molded or formed to create a frame 86 which may then be secured such as by soldering or brazing to flanges 89 and 91, which are preferably stamped from sheet stock, and thereafter provided with any desired curvature.

Preferably, the wire frame glasses 80 are provided with a nose piece 92 having a slot 94 extending along the upper surface thereof to receive a nose piece connector wire or flange 96. The nose piece connector wire 96 is preferably secured to the remainder of frame 86 by conventional brazing or soldering techniques. The foregoing construction permits the user interchangeability of nose pieces onto the wire frame 86, with the nose piece releasably retained in position by friction or interference fit structures, as will be apparent to one of skill in the art.

In accordance with a further embodiment of the detachable component wire frame glasses 80 of the present invention, there is provided a means for removably retaining the lenses 82 and 84 within the wire frame 86. Referring to FIG. 6, there is disclosed a lens 84 mounted in a frame 86 which has been provided with a frame closure lock 98. Closure lock 98 may be provided at any location along the perimeter of lens 84, such as on the lateral end as illustrated, on a medial surface, or at the connection point between the frame 86 and the flange 91.

The closure lock 98 in the embodiment illustrated in FIG. 6 comprises a threaded barrel 100 secured to the frame 86. Threaded barrel 100 is axially aligned with a tubular sleeve 102 secured to an adjacent portion of frame 86. A discontinuity or space 103 is provided in the frame 86 between the threaded barrel 100 and sleeve 102, as will be understood by one of skill in the art.

A screw 104 extends axially through the sleeve 102 and into the threaded barrel 100. Tightening or loosening screw 104 will draw adjacent ends 106 and 108 of frame 86 towards each other or away from each other, thereby reducing or enlarging the circumference of the frame 86 which encircles lens 84.

In this manner, the circumference of frame 86 can be enlarged to release the lens 84 so that it may be interchanged with another lens having different refractive properties or different color densities or other design configurations.

A variety of alternative embodiments based upon the axially aligned barrel embodiment are contemplated herein. For example, the sleeve 102 or a flange need only have a sufficient axial length to support the screw 104. The screw 104 may be a conventional threaded machine screw, or may be a modified rod having one or more radially outwardly extending projections or a medical luer lock configuration.

A rod having a "T" shaped distal end can be inserted into a keyway in the opposing barrel, and rotation of the rod through an angle, e.g., of about 90° will move the "T" structure out of alignment with the keyway to prevent retraction of the rod. In general, any locking structure which involves a rod or pin which is rotatable from a first, aligned position to permit axial insertion into a keyway, and a second, nonaligned position to prevent retraction from the keyway will work.

In any of the foregoing "barrel" embodiments of the closure lock, the closure lock structure can be located at any convenient point around the periphery of the lens. Preferably, the closure lock will be disposed on the posterior side of the flange 91.

Referring to FIG. 7, there is disclosed another embodiment of the frame closure lock in accordance with the present invention. In this embodiment, the frame is severed to provide two abutting ends 110 and 112 having a space therebetween. Each of ends 110 and 112 is provided with an outwardly extending projection 114 and 116, respectively. Once a lens 84 has been disposed within the wire frame 86, the ends 110 and 112 are manually drawn towards each other, and a retention clip 118 may be snapped over the projections 114 and 116 to retain the frame 86 in its reduced circumference configuration, thereby retaining the lens.

For this purpose, the contact surfaces between the abutment 114, 116 and the clip 118 are preferably configured in a manner that provides an interference fit to retain the clip 118 in place until the resilience of the clip 118 is overcome, such as by prying with a fingernail or removal tool. The contact surfaces between the clip 118 and abutments 114 and 116 will therefore be angled and toleranced in a manner that provides a sufficient resistance to removal of clip 118 that it will not be likely to come unconnected during normal use. Clip 118 may be constructed from metal, or from any of a wide variety of polymeric materials which are known in the sunglass manufacturing art.

In a variation of the foregoing, the nose piece, nose-piece connector 96 or flange 91 may be configured to function as clip 118, thereby permitting interchangeability of the lens by removing an eyeglass component. For example, one end 106 of frame 86 can be bonded to flange 91, and the space 103 provided in the frame at a point adjacent the connection to flange 91. The other end 108 can then be removably secured to the flange to accomplish the interchangeability of lenses.

The lens 84 and frame 86 may be provided with any of a variety of interlock structures which will become apparent to one of skill in the art in view of the disclosure herein. For example, the outer periphery of lens 84 in one embodiment is provided with a radially inwardly extending channel extending all the way around for receiving a wire frame 86 therein. Tightening of the frame closure lock 98 reduces the circumference of the wire 86 so that it rests in the channel formed around the circumference of the lens 84. In an alternate embodiment, the lens 84 is provided with a radially outwardly extending flange having the same or a reduced thickness compared to the remainder of the lens. The flange is received within a groove provided around the inside surface of the wire frame 86 to provide an interlock fit.

Thus, there has been provided in accordance with this aspect of the present invention a detachable component system having interchangeable left and right lenses, an interchangeable nose piece and interchangeable connectors for providing hinged support to a pair of removably secured earstems. Although described as a wire frame eyeglass 80, it is to be understood that the wire 86 can readily be replaced by stamped or rolled metal sheet stock or extruded or molded polymeric materials, which extend outwardly from the contact surface with the lens as far as is practical for a given purpose. For example, in an embodiment intended for use as protective eyewear, the frame 86 preferably extends a relatively large distance from side to side and

from top to bottom to create a "mask" of metal or plastic which will provide sufficient eye protection for the intended application. In this manner, protective prescription lens eyewear may be provided for a wide variety of uses, ranging from surgery, welding, bicycle racing and others.

Although this invention has been described in terms of certain preferred embodiments, other embodiments that are apparent to those of ordinary skill in the art are also within the scope of this invention. Accordingly, the scope of this invention is intended to be limited only by the appended claims.

What is claimed is:

1. A connector for eyeglasses, for connecting one or more earstems to a lens, said connector comprising:
 - a main body with a lateral end and a medial end;
 - a lens receiving channel extending from the medial end in the direction of the lateral end;
 - a first interlock structure in the lateral end of the channel, said first interlock structure comprising a locking surface for engaging a corresponding locking surface on the lens for resisting vertical upward motion of the lateral end of the connector with respect to the lens, said locking surface on the first interlock structure comprising a ramped edge of a projection on the connector; and
 - a second interlock structure spaced apart from the lateral end of the channel.
2. A connector for eyeglasses as in claim 1, wherein the projection is integrally molded on the connector and extends within the channel in the medial direction.
3. A connector for eyeglasses as in claim 1, wherein the second interlock structure comprises a locking surface for releasably engaging a corresponding locking surface on the lens.
4. A connector for eyeglasses as in claim 1, wherein the second interlock structure comprises a projection within the channel for engaging a recess in the lens.
5. A connector for eyeglasses as in claim 4, wherein the second interlock structure comprises first and second projections on the connector extending toward each other from opposite sides of the channel.
6. An eyeglass, comprising a lens, an earstem, and at least one connector as defined in claim 1 for removably connecting the earstem to the lens.
7. A eyeglass as in claim 6, further comprising an earstem pivotally secured to the connector.
8. An eyeglass, comprising a lens, an earstem, and at least one connector as defined in claim 1 for removably connecting the earstem to the lens.
9. Sunglasses, comprising:

a unitary transparent lens adapted to extend in the path of the wearer's left and right eye fields of vision; and

at least one connector as defined in claim 1 extending along a portion of an edge of said lens, said lens having at least one projection on the lens to interlock with said connector.

10. A sunglass as in claim 9, further comprising a second connector secured to said lens.

11. A sunglass as in claim 9, further comprising an earstem pivotally secured to said connector.

12. A sunglass as in claim 9, wherein said connector extends no more than about one-third of the way across a top edge of the lens.

13. A sunglass as in claim 9, wherein the connector extends no more than about one-fifth of the way across the top edge of the lens.

14. A sunglass as in claim 9, wherein said connector extends along at least a portion of the lateral edge of the lens.

15. A sunglass as in claim 9, wherein said connector extends along at least a portion of the bottom edge of the lens.

16. The connector of claim 1, further comprising an earstem pivotally secured to the connector.

17. A connector for eyeglasses, for connecting one or more earstems to a lens, said connector comprising:

- a main body with a lateral end and a medial end;
- a lens receiving channel extending from the medial end in the direction of the lateral end;
- a first interlock structure in the lateral end of the channel; and
- a second interlock structure spaced apart from the lateral end of the channel, said second interlock structure comprising a recess in the channel for receiving a projection on the lens.

18. An eyeglass, comprising:

- a lens, said lens having a connector contacting surface having a projection at a lateral point thereon and a recess at a medial point thereon;
- an earstem; and
- at least one connector for connecting one or more earstems to a lens, said connector comprising a main body with a lateral end and a medial end; a lens receiving channel extending from the medial end in the direction of the lateral end; a first interlock structure in the lateral end of the channel; and a second interlock structure spaced apart from the lateral end of the channel, said connector for removably connecting the earstem to the lens.

* * * * *



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United States Patent [19]

Jannard et al.

[11] Patent Number: **5,638,145**[45] Date of Patent: **Jun. 10, 1997**[54] **VENTED EYEGLASS LENS**[75] Inventors: **James H. Jannard**, Eastsound, Wash.;
Peter K. Yee, Irvine, Calif.[73] Assignee: **Oakley, Inc.**, Irvine, Calif.[21] Appl. No.: **608,711**[22] Filed: **Feb. 29, 1996**[51] Int. Cl.⁶ **G02C 1/08**[52] U.S. Cl. **351/62; 351/41; 2/435**[58] Field of Search **351/41, 62, 86,**
351/96, 106; 2/435, 436, 437[56] **References Cited****U.S. PATENT DOCUMENTS**

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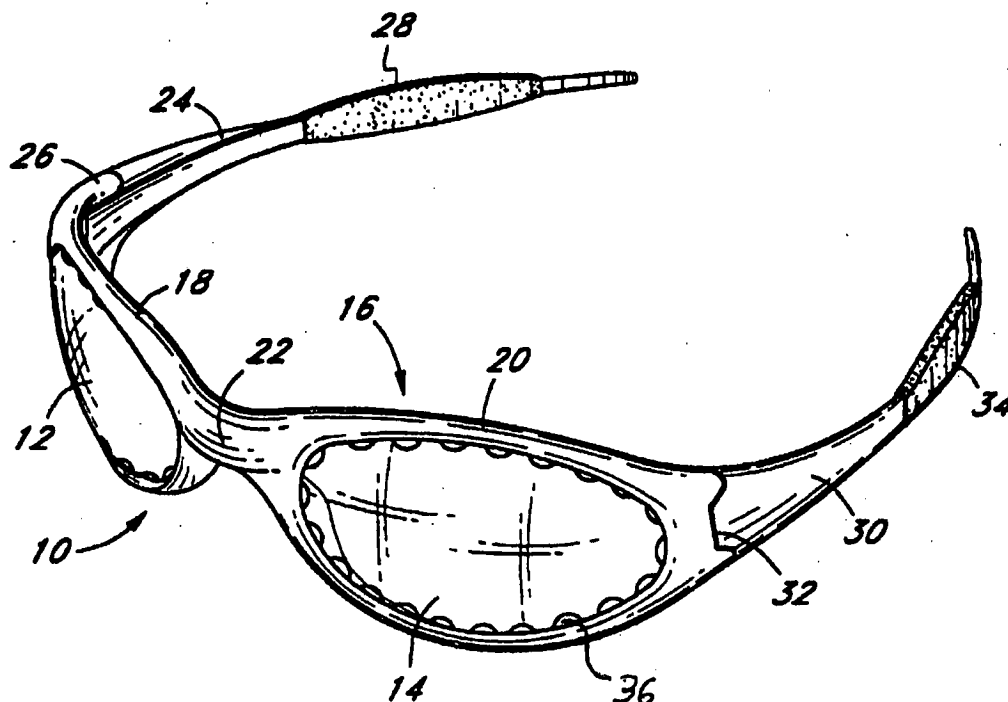
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Primary Examiner—Hung X. Dang*Attorney, Agent, or Firm*—Knobbe, Martens, Olson & Bear,
LLP[57] **ABSTRACT**

Disclosed is a dual-lens vented eyeglass. In one embodiment, each lens is provided with a plurality of apertures extending therethrough, at the junction between the lens and the surrounding frame. In another embodiment, a plurality of apertures are provided in the frame, surrounding the lens. The apertures optimize ventilation, with minimal intrusion into the optical zone.

5 Claims, 2 Drawing Sheets

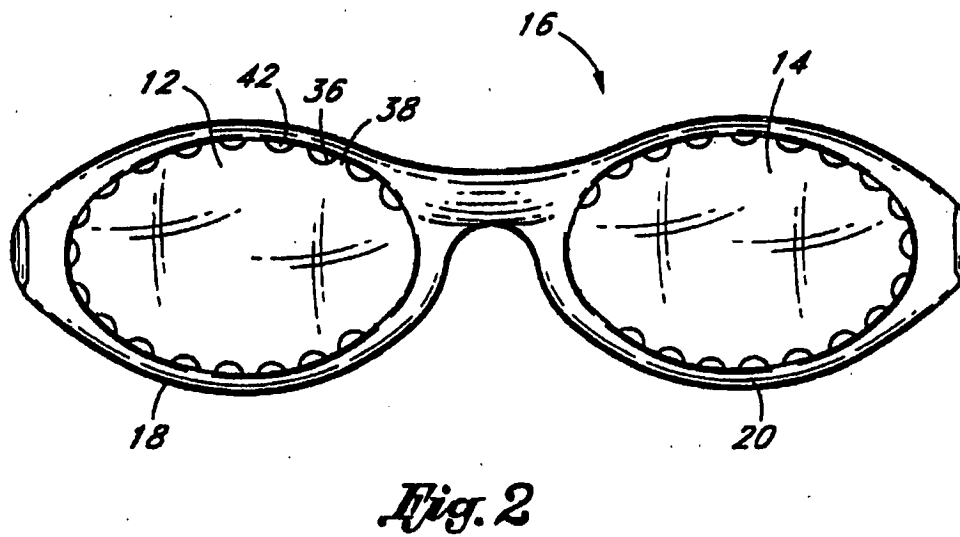
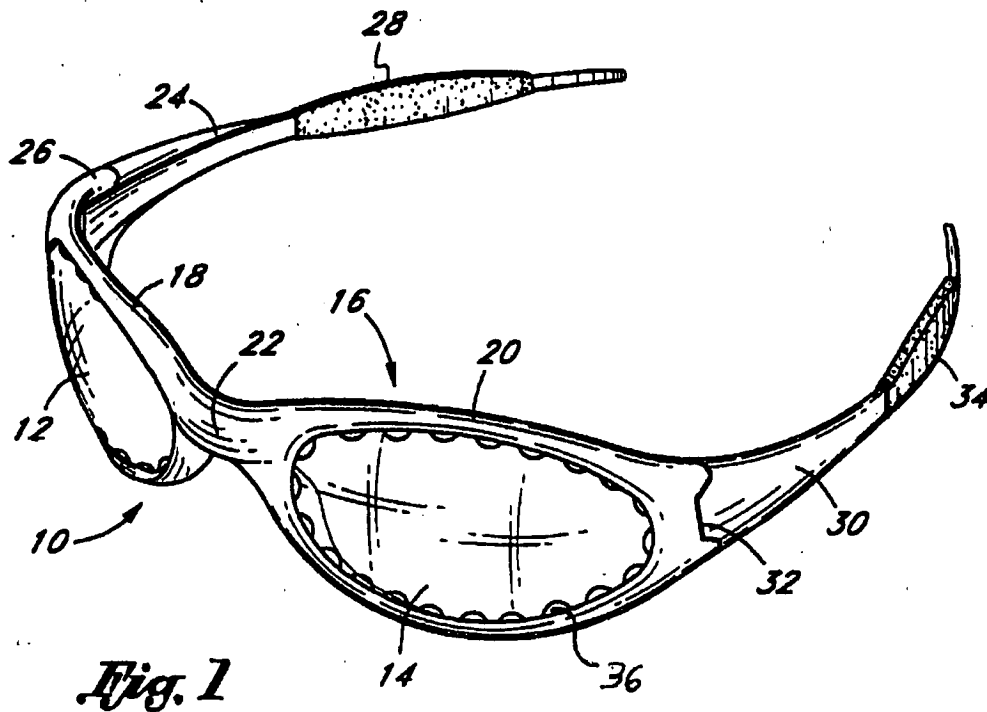


Fig. 3

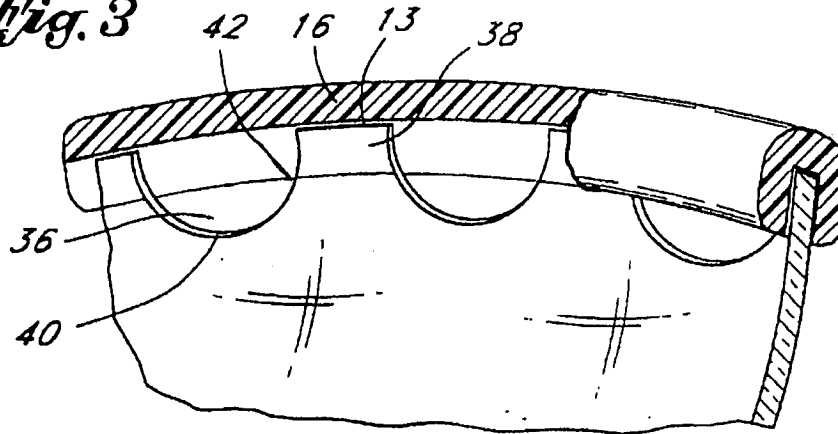


Fig. 4

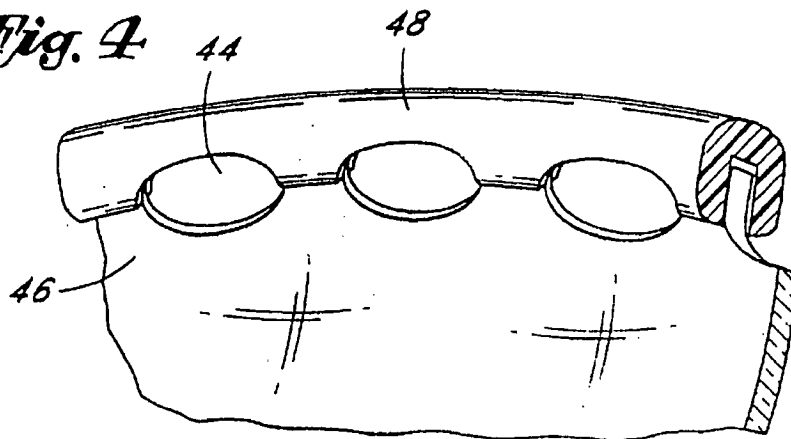
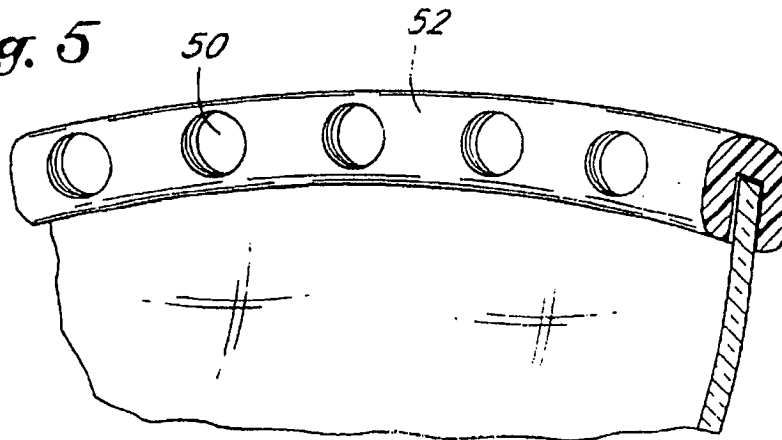


Fig. 5



VENTED EYEGGLASS LENS

BACKGROUND OF THE INVENTION

The present invention relates to eyeglass lenses, and, in particular, to vented eyeglass lenses.

Early dual-lens eyeglass systems generally comprised a right and left lens suspended by an eyeglass frame in the wearer's line of sight. Each of the right and left lenses was generally disposed on a plane which was perpendicular to the wearer's normal or "straight ahead" line of sight. Although the upper portion of the eyeglass frame generally contacts the forehead, a significant ventilation gap was normally present between the lower and lateral edges of the eyeglass lens and the wearer's cheek bone.

Dual lens eyeglasses have more recently been developed in which the eyeglasses exhibit a significant rake and wrap compared to the prior art.

Lens rake refers to the extent to which the lower edge of a lens curves in towards the wearer's face. One effect of enhancing rake in a dual lens system is to more closely conform the lens in the vertical plane to the head of the wearer.

Lens wrap refers to the extent to which the lateral edge of the lens curves rearwardly to conform more closely to the side of the wearer's head.

Increased lens rake and wrap have as a consequence a reduction in the gap between the lower edge of the lens and the face as well as a reduction in the gap between the lateral edge of the lens and the face.

Although increased rake and wrap in dual-lens eyeglasses produce a variety of benefits, one disadvantage is the entrapment of a relatively small volume of air between the lens and the wearer's face. When someone wears eyeglasses of this design during active sports, such as skiing, bicycling or the like, the lenses are susceptible to fogging on the inside surface due to an inadequate ability to circulate moisture-laden air.

Thus, there remains a need for a dual lens eyeglass system which permits a relatively high level of rake and wrap compared to the prior art, yet which minimizes the risk of fogging due to the entrapment of air between the lens and the face of the wearer.

SUMMARY OF THE INVENTION

There is provided in accordance with one aspect of the present invention a vented dual lens eyeglass system. The eyeglass system comprises a right and a left lens, each having a central optical zone and a peripheral edge. Each lens is provided with at least one recess, extending into the lens from the peripheral edge towards the optical zone. The lens is mounted in an eyeglass frame, which surrounds the peripheral edge of the lens to enclose the recess thereby forming an aperture at the junction between the lens and the surrounding frame.

In another embodiment of the invention, each lens is provided with one or more perforations near the peripheral edge. When the lens is mounted in the frame, the frame overlaps at least a portion of the perforation.

Preferably, a plurality of apertures are provided, spaced apart along the junction between the lens and the frame. Apertures may be provided along the top edge of the lens, or the bottom edge, or either lateral edge, or any combination thereof. In a preferred embodiment, an aperture free zone is provided along a lower medial edge of the lens.

In accordance with another aspect of the present invention, there is provided a method of producing a vented

dual lens eyeglass. The method comprises the steps of providing a lens blank, and cutting the lens blank to produce a lens having an outer periphery and a plurality of recesses extending radially inwardly into the lens from the outer periphery. The lens is secured to an eyeglass orbital such that the recesses extend radially inwardly from the orbital to produce a plurality of apertures between the lens and the orbital. The orbital may previously or thereafter be secured to a bridge, earstems and other components of a pair of eyeglasses.

In accordance with a further aspect of the present invention, there is provided a method of optimizing ventilation while minimizing interference with the optical zone in a high wrap, high rake dual lens eyeglass system. The method comprises the steps of producing a right and a left lens for a dual lens eyeglass, each of said lenses having a central optical zone and a peripheral edge. A plurality of recesses or apertures are provided at or near the peripheral edge of the lens. The lens is mounted in an eyeglass frame to produce an eyeglass such that the eyeglass frame intersects at least some of the apertures.

In one embodiment of the invention, each lens as mounted has a vertical dimension within the range of from about 1 inch to about 2½ inches, and a horizontal arc length from about 2 inches to about 3½ inches. In an embodiment having a vertical height of about 1½ inches and a horizontal arc length of about 2½ inches, the sum of the cross-sectional area of the apertures is within the range of from about 0.5% to about 15% of the total area of the lens within the surrounding orbital. Preferably, each recess extends no more than about 0.25 inches radially inwardly towards the center of the lens.

Further features and advantages of the present invention will become apparent from the detailed description of preferred embodiments which follows, when considered together with the attached drawings and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a front perspective view of a dual lens pair of eyeglasses in accordance with the present invention.

FIG. 2 is a front elevational view of a pair of eyeglasses similar to those in FIG. 1, having a different ventilation aperture pattern.

FIG. 3 is a fragmentary cut-away view of a portion of the connection between the lens and the upper frame in the embodiment of FIG. 2.

FIG. 4 is a fragmentary view of an alternative embodiment of the vent apertures of the present invention.

FIG. 5 is another alternate embodiment of the vent apertures of the present invention.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to FIG. 1, there is disclosed a dual-lens eyeglass system 10. The eyeglass system 10 generally comprises a right lens 12 and a left lens 14 mounted in an eyeglass frame 16 and adapted to be positioned in the wearer's line of sight. Eyeglass frame 16 comprises a right annular orbital 18 for supporting right lens 12 and a left annular orbital 20 for supporting left lens 14. The right orbital 18 and left orbital 20 are connected by way of a bridge 22.

A right temple 24 is connected by way of a hinge 26 to the eyeglass frame 16 as is known in the art. The temple 24 may be provided with any of a variety of structures for improving retention of the eyeglass on the head of the wearer, such as

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conventional hook shaped rearward portions, or an elastomeric traction device 28. Such devices are disclosed and claimed in U.S. Pat. Nos. 5,054,903 and 5,137,342, the disclosures of which are incorporated herein by reference.

The opposing temple 30 is similarly connected at its forward end by way of a hinge 32 to the frame 16. The rearward end of the temple 30 may also be provided with an elastomeric traction device 34.

Referring to FIG. 2, there is disclosed an eyeglass frame 16 as in FIG. 1, having lenses 12 and 14 suspended in orbitals 18 and 20, respectively. Lens 12 is provided with a plurality of apertures 36, separated from each other by lens portions 38 for connecting the lens 12 to the orbital 18. In most embodiments of the present invention, the right and left lenses will be mirror images of each other. Accordingly, the apertures 36 will for simplicity be discussed only in connection with a single lens 12.

Referring to FIG. 3, there is disclosed an enlarged fragmentary view of the aperture 36 in a lens mounted within frame 16. In this embodiment, the outer peripheral edge 13 of the lens 12 fits within a radially outwardly extending slot in the orbital 18. Although the present invention will be disclosed in connection with a lens mounted within a slot in the lens orbital, it will be apparent to those of skill in the art that the apertures 36 of the present invention can be readily incorporated into eyeglass systems having lenses mounted to the associated frame in any of a variety of other fashions.

One of the advantages of the design of the present invention is the ability to provide ventilation apertures 36 in a relatively small lens, while at the same time minimizing interference with the optical zone of the lens. In the embodiments illustrated in FIGS. 1-4, this is accomplished by positioning the aperture 36 such that at least a first portion of the circumference of the aperture is formed by the lens and at least a second portion of the circumference of the aperture is formed by a portion of the frame. In an alternate embodiment of the invention illustrated in FIG. 5 and discussed infra, the entire circumference of the aperture is surrounded by the frame.

Apertures can alternatively be positioned in the lens spaced apart from the frame, if the overall lens area is large enough to produce a sufficient uninterrupted optical zone for the desired application.

As will be apparent to those of skill in the art, the cross-sectional shape of the aperture can take any of a variety of forms and still accomplish the objectives of the present invention. For example, FIG. 3 illustrates a lens having a plurality of semicircular apertures 36 at the edge of the lens. Apertures may alternatively be formed by a plurality of enclosed circles punched into the peripheral zone of the lens, which circular holes are partially covered by the frame to produce the appearance of a plurality of semicircles. The apertures 36 in the as mounted condition may thus be defined by a relatively tight radius curved wall 40 in the lens and a relatively flatter curved or straight wall 42 formed by a portion of the frame 16.

The circular or semi-circular indent in the lens which forms aperture 36 can have a constant or substantially constant radius. Alternatively, the aperture 36 can take any of a variety of alternate forms as will be apparent to those of skill in the art in view of the disclosure herein. For example, the aperture may be defined by a portion or all of a circular, semicircular, oval, elliptical, or non regular curved shape depending upon the shape of the recess or aperture and upon its orientation once mounted in the frame. Angular configurations such as triangular, square, rectangular, or others

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having sharp corners can be used but tend to be less desirable due to stress dispersion considerations as will be apparent to those of skill in the art. However, the provision of radiused corners in an otherwise angular geometry can minimize the risk of lens fracture. Thus, for example, elongated rectangular apertures with slightly rounded corners can be provided to extend along the interface between the frame and the lens.

The cross-sectional size or area of the aperture 36 can also be varied considerably and remain within the scope of the present invention. Two relevant size considerations are the cross-sectional area of each individual aperture 36, as well as the sum of all of the cross-sectional areas of all apertures 36 on a given lens. To achieve a desired total cross-sectional flow area, fewer relatively larger apertures 36 may accomplish the same flow objective as relatively more smaller cross-sectional area apertures 36. In general, the size and number of apertures 36 to achieve a desired total flow area can be optimized depending upon a variety of competing considerations such as desired impact strength for the lens, desired flow distribution across the lens, and the acceptable distance into the optical zone that the apertures 36 can project.

In general, the total cross-sectional flow area of the apertures 36 in the lens will generally range from about 0.2% to about 50% of the total lens area. Preferably the flow area of the apertures will be in the range of from about 0.5% to about 20% of the total lens area, and, more preferably, between about 1% and about 10% of the total lens area. In one embodiment, in a pair of eyeglass lenses as illustrated in FIG. 2 having a generally elliptical shape with vertical height through the lens of about 1.58 inches, and a horizontal arc length of the lens of about 2.62 inches, 13 semicircular apertures each having a radius of about 0.062 inches have a combined cross sectional area of roughly 2.5% of the total area of the lens. For this purpose, the total area of the lens refers to the total area within the orbital or within the outer periphery of the lens if the orbital does not encircle the lens, as though there were no apertures in the lens.

In an embodiment such as that illustrated in FIG. 2, each aperture 36 has a constant radius (r) within the range of from about $\frac{1}{32}$ inch to about $\frac{1}{4}$ inch. In an embodiment having an aperture diameter of $\frac{1}{8}$ inch and having a maximum aperture dimension from the wall 42 to the bottom of the aperture of $\frac{1}{16}$ inch, the width of the aperture 36 at the point of contact with the frame (i.e., the length of wall 42 within a given aperture) is therefore about $\frac{1}{8}$ inch ($2r$).

Within the range of from about 1 to about 20 or 30 or more total apertures 36 are typically provided for each lens. As the cross sectional area of each aperture gets too small, however, flow may become unacceptably low due to interference and flow rate limiting effects. Thus, no more than about 12 to 18 apertures are generally preferred.

The minimum number of apertures is affected by a variety of factors, including desired air flow and other aspects of the eyeglass design. For example, if the eyewear conforms very closely to the wearer's head, at least one lower edge aperture and at least one upper edge aperture is preferred to permit a convection flow. Preferably, four or more apertures are provided at each of the upper and lower edges. In terms of area, each of the lower and upper edges is preferably provided with apertures totalling at least about 0.2% and more preferably at least about 1% of the total area of the lens. Apertures can be positioned along the top or the bottom edges or either side, or any combination thereof.

In the embodiment illustrated in FIG. 1, the apertures 36 are spaced apart by a distance of about $2r$, all the way around

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the orbital 18. Spacing between adjacent apertures 36 can vary within the range of from about $\frac{1}{4}$ of the maximum aperture width up to as much as 5 or 10 or more times the length of wall 42 within an aperture 36 (maximum aperture width). The width of each aperture 36 can extend for a longer distance around the circumference of orbital 18, such as in the case of an elongate slot, or a shorter distance around the circumference of orbital 18, as will be apparent to those of skill in the art.

The distribution of apertures 36 around the circumference of the lens 12 may also be varied asymmetrically. For example, in the embodiment illustrated in FIG. 2, no apertures 36 are provided at the medial (nose piece) side of the lens 12. Apertures in this region can, under high wind conditions, produce an undesirable drying of the eye.

In another embodiment of the vented eyeglass lens of the present invention, a plurality of apertures 44 extend both into the lens 46 as well as into the frame 48. See FIG. 4. This embodiment permits a greater preservation of the optical zone of the lens 46. Alternatively, referring to FIG. 5, there is disclosed an embodiment having a plurality of apertures 50 extending through the frame 52. In this embodiment, the entire circumference of the aperture 50 is surrounded by the frame 52. In a further alternative, the apertures extend through the lens but spaced apart from the frame. Alternatively, portions of the frame can be spaced apart from the lens to form one or more flow passages between the lens and the frame.

In most of the embodiments herein, the apertures are either positioned through the frames or adjacent the frame. This permits the use of an additional bore hole (not illustrated) through the frame for communicating with the aperture to provide an additional flow path. The bore hole in one embodiment extends from the aperture radially outwardly through the outer edge of the frame. Bore holes may be provided for each lens or frame aperture, or only for selected apertures depending upon the desired flow characteristics.

Lenses such as lens 12 in FIG. 2 and lens 46 in FIG. 4 can be manufactured in accordance with any of a variety of techniques well known in the art. For example, the lens may be injection molded from an optically suitable material into the form of a raw lens blank. The profile of the desired finished lens may be cut from the lens blank. Where the aperture 36 is formed along the exterior periphery of the lens, the aperture can be formed simultaneously with cutting the lens from the lens blank.

In an embodiment such as that illustrated in FIGS. 4 or 5, the aperture extends either partially or wholly through the eyeglass frame. The eyeglass frame may be formed such as by injection molding, or other techniques which are appropriate for the material of the eyeglass frame. The recesses on the frame which form a portion of aperture 44 as illustrated in FIG. 4 can be formed as a part of the frame molding process, or can be drilled or otherwise provided in the frame in a post-molding operation. Similarly, the apertures 50 in the embodiment illustrated in FIG. 5 can be formed either during the injection molding or other formation process, or can be provided such as by drilling in a post-forming

6

operation. The optimal manufacturing technique can be readily determined by those of skill in the art, in view of the construction materials provided, as well as the dimensions and intended utility of the finished eyeglasses. In the embodiment illustrated in FIG. 5, the apertures 52 may or may not pass through a portion of the lens depending upon the extent to which the lens interfits within the frame 52, and the relative width of the frame 52 as will be apparent to those of skill in the art.

Although the present invention has been described in terms of certain preferred embodiments, other embodiments will become apparent to those of skill in the art in view of the disclosure herein. Accordingly, the present invention is intended to be defined solely by reference to the appended claims, and not limited to the preferred embodiments disclosed herein.

What is claimed is:

1. A vented dual lens eyeglass system, comprising:

a right and a left lens each having a central optical zone and a peripheral edge;

at least one recess extending through the peripheral edge of the lens;

an eyeglass frame surrounding at least a portion of the lens;

wherein the eyeglass frame contacts the peripheral edge of the lens on a first side and on a second side of the recess to enclose a non-tortuous aperture, at least a portion of which is spaced apart from the frame in the direction of the optical zone of the lens.

2. A vented dual lens eyeglass system as in claim 1, comprising a plurality of apertures formed around the peripheral edge of the lens.

3. A vented dual lens eyeglass system as in claim 2, wherein each aperture comprises a curved wall, the convex side of which faces the optical zone.

4. A vented dual lens eyeglass system as in claim 1, wherein the eyeglass lens has a vertical dimension within the range of from about 1 inch to about 2 inches, and a horizontal arc length along the surface of the lens within the range of from about 2 inches to about 3 inches.

5. A method of manufacturing vented eyeglasses, comprising the steps of:

providing a lens blank;

cutting the lens blank to produce a lens having an outer periphery and a plurality of recesses extending radially inwardly into the lens from the outer periphery, each recess bordered by a lens edge; and

securing the outer periphery of the lens to an eyeglass orbital such that the recesses extend radially inwardly from the orbital to produce a plurality of apertures between the lens and the orbital, each aperture formed between the edge of the lens surrounding the recess and a portion of the orbital;

wherein a portion of the edge is spaced apart radially inwardly from the portion of the orbital by about the cross section of the aperture.

* * * * *



US00D554689S

(12) **United States Design Patent** (10) Patent No.: **US D554,689 S**
Jannard et al. (45) Date of Patent: **** Nov. 6, 2007**

(54) **EYEGLASS FRAME**

(75) Inventors: **James H. Jannard**, Spieden Island, WA (US); **Hans Karsten Moritz**, Foothill Ranch, CA (US); **Colin Baden**, Irvine, CA (US)

(73) Assignee: **Oakley, Inc.**, Foothill Ranch, CA (US)

(**) Term: **14 Years**

(21) Appl. No.: **29/272,776**

(22) Filed: **Feb. 15, 2007**

Related U.S. Application Data

(62) Division of application No. 29/227,719, filed on Apr. 13, 2005.

(51) LOC (8) Cl. **16-06**

(52) U.S. Cl. **D16/326**

(58) Field of Classification Search D16/300-330,
D16/101, 332-338; D29/109-110; D24/110.2;
351/41, 44, 51-52, 62, 158, 92, 103-111,
351/156, 61, 114-119, 121-123; 2/426-432,
2/447-449, 441, 436, 434-437

See application file for complete search history.

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D210,418 S	*	3/1968	Bloch	D16/326
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D285,020 S		8/1986	Schmidthaler		
D372,726 S		8/1996	Simioni		
D390,589 S		2/1998	Simioni		
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D414,796 S		10/1999	Arnette		
D420,035 S	*	2/2000	Hartman	D16/325
D449,641 S	*	10/2001	Arnette	D16/326
D488,499 S	*	4/2004	Mage	D16/326
D500,781 S	*	1/2005	Mage	D16/326
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D532,033 S	*	11/2006	Mangum	D16/326
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D534,573 S	*	1/2007	Mage	D16/326
D536,028 S	*	1/2007	Paulson	D16/326
D537,467 S	*	2/2007	Teng	D16/326

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Primary Examiner—Raphael Barkai

(74) Attorney, Agent, or Firm—Gregory K. Nelson

(57) CLAIM

The ornamental design for an eyeglass frame, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the eyeglass frame of the present invention;

FIG. 2 is a left-side elevational view thereof, the right-side elevational view being a mirror image thereof;

FIG. 3 is a front elevational view thereof;

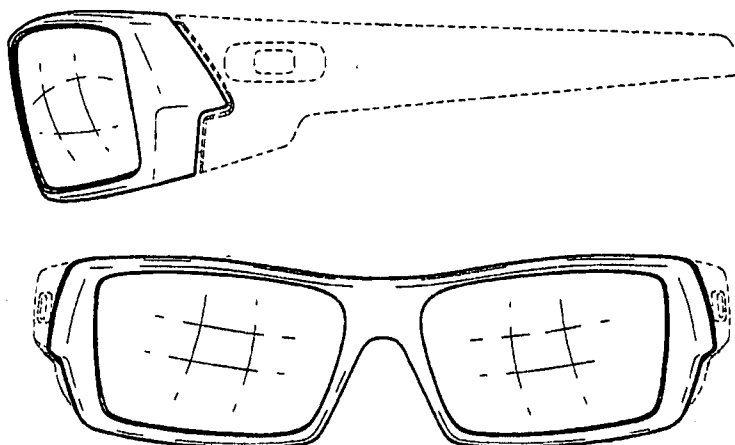
FIG. 4 is a rear elevational view thereof;

FIG. 5 is a top elevational view thereof; and,

FIG. 6 is a bottom plan view thereof.

Phantom lining, where utilized, is for illustrative purposes only and is not intended to limit the claimed design to the features shown in phantom.

1 Claim, 4 Drawing Sheets



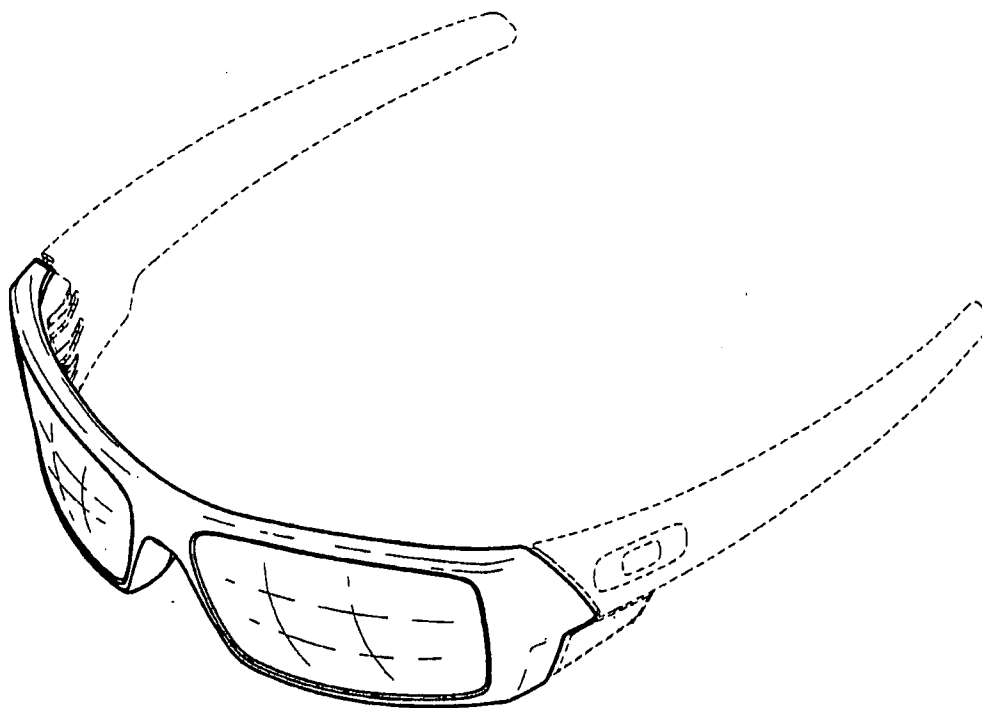


FIG. 1

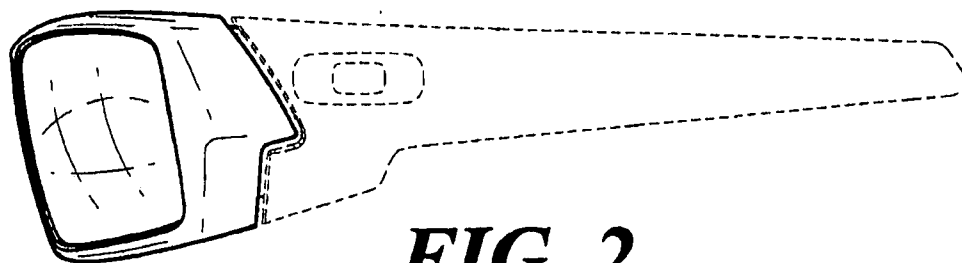


FIG. 2

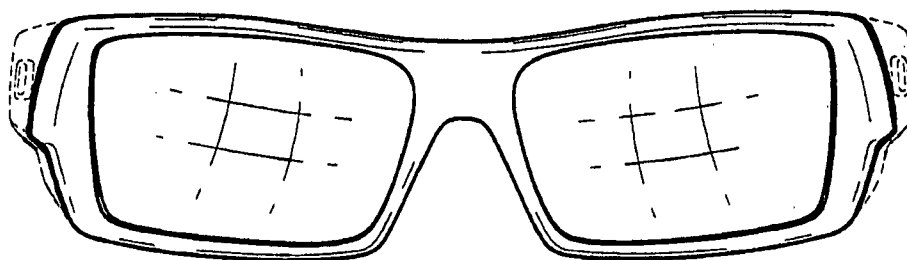


FIG. 3

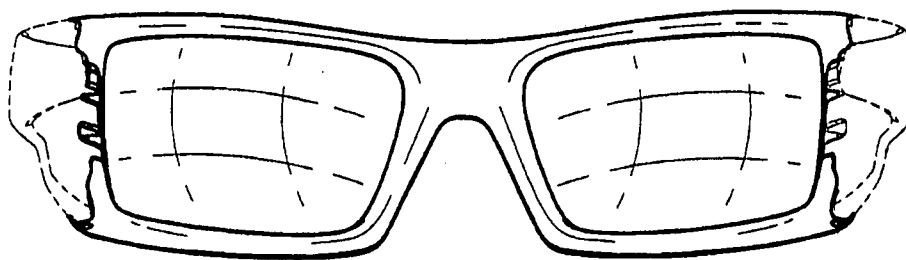


FIG. 4

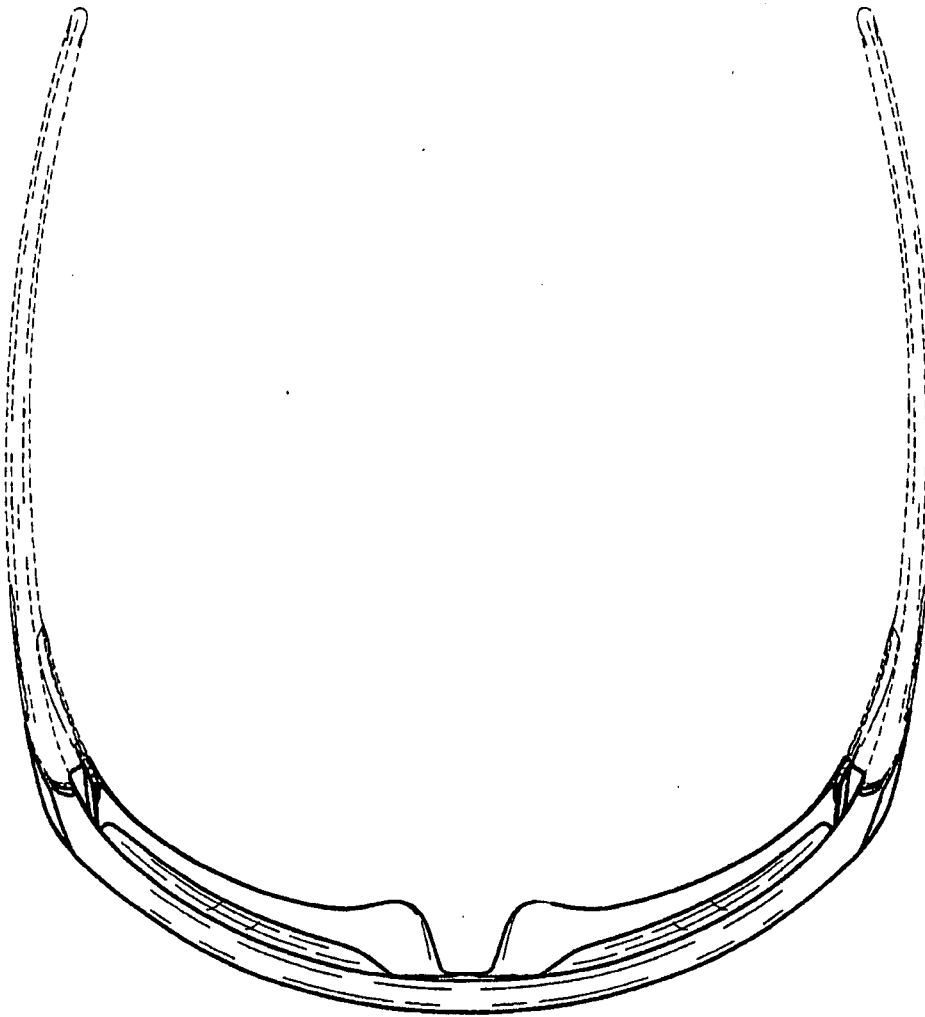


FIG. 5

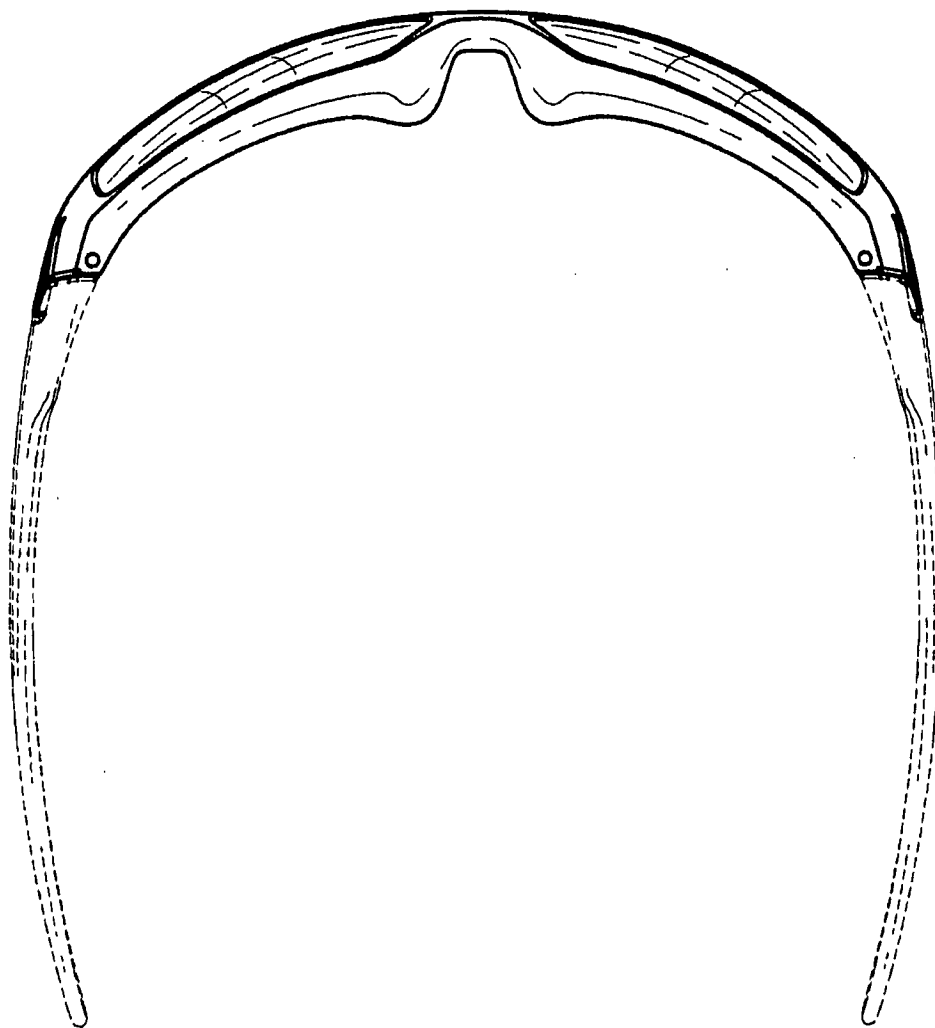


FIG. 6



US00D547794S

(12) United States Design Patent
Jannard et al.**(10) Patent No.: US D547,794 S****(45) Date of Patent: ** Jul. 31, 2007****(54) EYEGLASSES****(75) Inventors:** James H. Jannard, Spieden Island, WA (US); Hans Karsten Moritz, Foothill Ranch, CA (US); Colin Baden, Irvine, CA (US)**(73) Assignee:** Oakley, Inc., Foothill Ranch, CA (US)**(**) Term:** 14 Years**(21) Appl. No.:** 29/227,719**(22) Filed:** Apr. 13, 2005**(51) LOC (8) Cl.** 16-06**(52) U.S. Cl.** D16/326**(58) Field of Classification Search** D16/300-330, D16/101, 332-338; D29/109-110; D24/110.2; 351/41, 44, 51-52, 62, 158, 92, 103-111, 351/156, 61, 114-119, 121-123; 2/426-432, 2/447-449, 441, 436, 434-437
See application file for complete search history.**(56) References Cited****U.S. PATENT DOCUMENTS**

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D209,862 S	1/1968	McCracken	
D210,418 S *	3/1968	Bloch	D16/326
D218,569 S *	9/1970	McCracken	D16/325
D264,094 S *	4/1982	Morris	D16/325
D268,683 S	4/1983	Tenny	
D285,020 S	8/1986	Schmidthaler	
D372,726 S	8/1996	Simioni	
D390,589 S	2/1998	Simioni	
D397,351 S	8/1998	Simioni	
D399,238 S *	10/1998	Simioni	D16/326
D407,099 S	3/1999	Wang	

D414,796 S	10/1999	Arnette	
D420,035 S *	2/2000	Hartman	D16/325
D449,641 S *	10/2001	Arnette	D16/326
D488,499 S *	4/2004	Mage	D16/326
D500,781 S *	1/2005	Mage	D16/326
D518,847 S *	4/2006	Teng	D16/326
D532,033 S *	11/2006	Mangum	D16/326
D534,572 S *	1/2007	Teng	D16/326
D534,573 S *	1/2007	Mage	D16/326
D536,028 S *	1/2007	Paulson	D16/326
D537,467 S *	2/2007	Teng	D16/326

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Sunglass Hut, p. 5, 2002.*

* cited by examiner

Primary Examiner—Raphael Barkai*(74) Attorney, Agent, or Firm*—Gregory K. Nelson**(57)****CLAIM**

The ornamental design for an eyeglasses, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the eyeglasses of the present invention;

FIG. 2 is a left-side elevational view of the eyeglasses, the right side elevational view being a mirror image thereof;

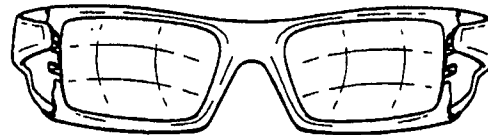
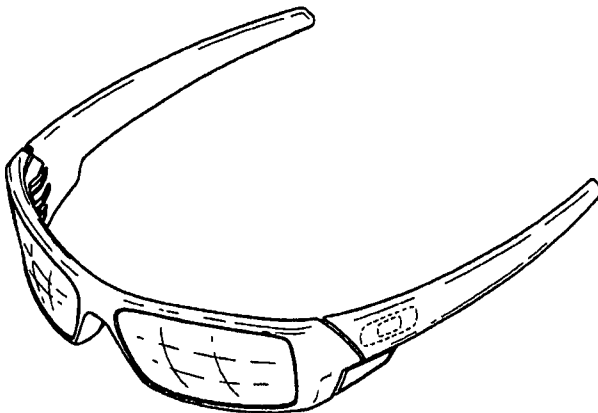
FIG. 3 is a front elevational view thereof;

FIG. 4 is a rear elevational view thereof;

FIG. 5 is a top plan view thereof; and,

FIG. 6 is a bottom plan view thereof.

Phantom lining, where utilized, is for illustrative purposes only and is not intended to limit the claimed design to the features shown in phantom.

1 Claim, 4 Drawing Sheets

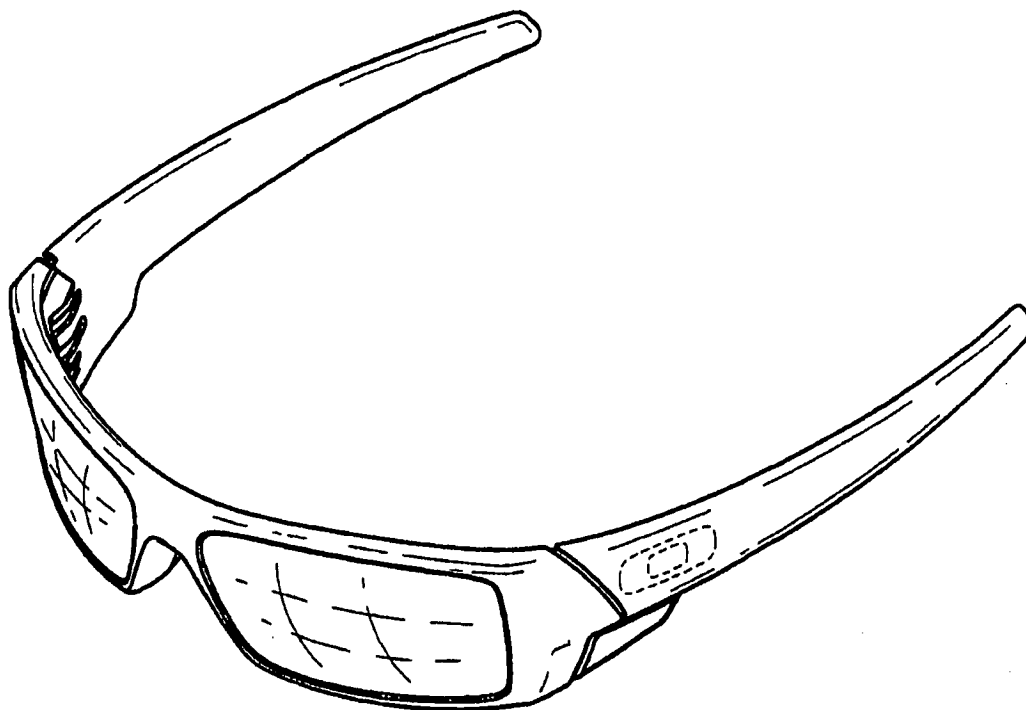


FIG. 1

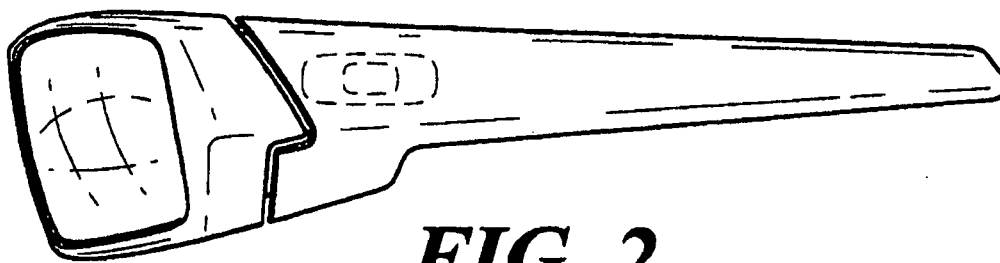


FIG. 2

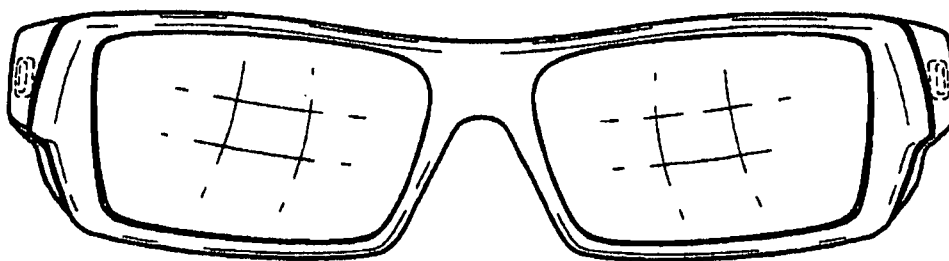


FIG. 3

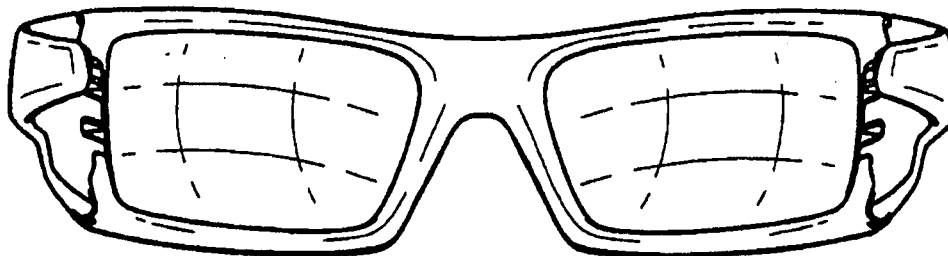


FIG. 4

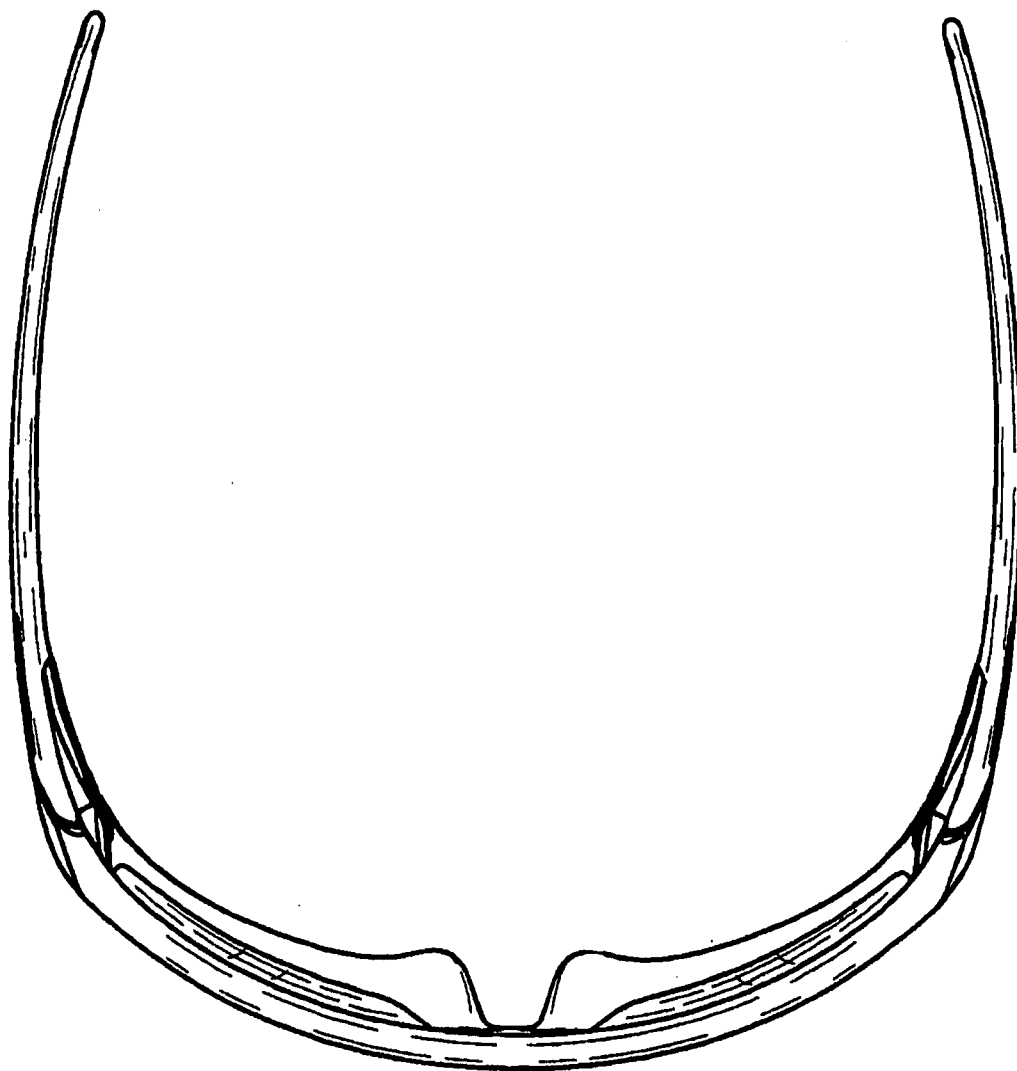


FIG. 5

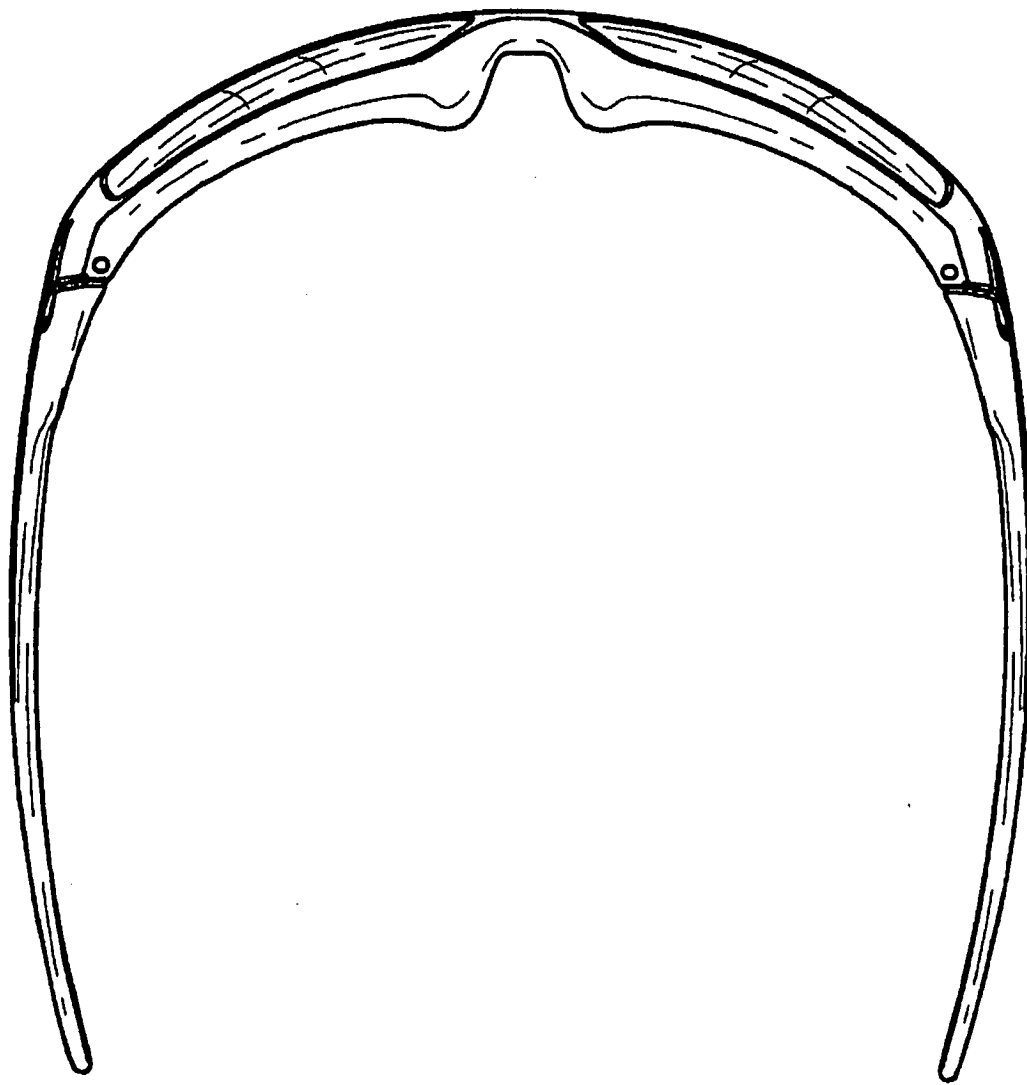


FIG. 6



US00D556818S

(12) United States Design Patent
Jannard et al.**(10) Patent No.: US D556,818 S****(45) Date of Patent: ** Dec. 4, 2007****(54) EYEGLASS COMPONENTS****(75) Inventors:** James H. Jannard, Spieden Island, WA (US); Hans Karsten Morlitz, Foothill Ranch, CA (US); Colin Baden, Irvine, CA (US)**(73) Assignee:** Oakley, Inc., Foothill Ranch, CA (US)**(**) Term:** 14 Years**(21) Appl. No.:** 29/272,777**(22) Filed:** Feb. 15, 2007**Related U.S. Application Data****(62)** Division of application No. 29/227,719, filed on Apr. 13, 2005, now Pat. No. Des. 547,794.**(51) LOC (8) Cl.** 16-06**(52) U.S. Cl.** D16/326; D16/335**(58) Field of Classification Search** D16/300-330, D16/101, 332-338; D29/109-110; D24/110.2; 351/41, 44, 51-52, 62, 158, 92, 103-111, 351/156, 61, 114-119, 121-123; 2/426-432, 2/447-449, 441, 436, 434-437
See application file for complete search history.**(56) References Cited****U.S. PATENT DOCUMENTS**

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D202,658 S	10/1965	Petitto
D209,862 S	1/1968	McCracken
D268,683 S	4/1983	Tenny
D285,020 S	8/1986	Schmidthaler
D372,726 S	8/1996	Simioni
D390,589 S	2/1998	Simioni
D397,351 S	8/1998	Simioni
D407,099 S	3/1999	Wang
D414,796 S	10/1999	Arnette

D481,063 S	*	10/2003	Lane	D16/326
D500,781 S	*	1/2005	Mage	D16/335
D534,572 S	*	1/2007	Teng	D16/337
D535,318 S	*	1/2007	Teng	D16/335
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D536,026 S	*	1/2007	Bruck	D16/326
D537,467 S	*	2/2007	Teng	D16/326

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Pending U.S. Appl. No. 29/227,719, filed Apr. 13, 2005, Jannard.

* cited by examiner

Primary Examiner—Raphael Barkai

(74) Attorney, Agent, or Firm—Gregory K. Nelson

(57) CLAIM

The ornamental design for an eyeglass components, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the eyeglass components of the present invention;

FIG. 2 is a perspective view thereof;

FIG. 3 is a front elevational view thereof;

FIG. 4 is a lateral left-side elevational view thereof, the lateral right-side elevational view being a mirror image thereof;

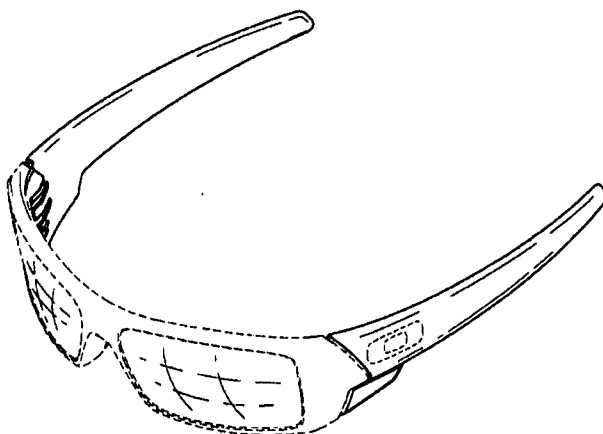
FIG. 5 is a medial left-side elevational view thereof, the medial right-side elevational view being a mirror image thereof;

FIG. 6 is a rear elevational view thereof;

FIG. 7 is a bottom plan view thereof; and,

FIG. 8 is a top elevational view thereof.

Phantom lining, where utilized, is for illustrative purposes only and is not intended to limit the claimed design to the features shown in phantom.

1 Claim, 5 Drawing Sheets

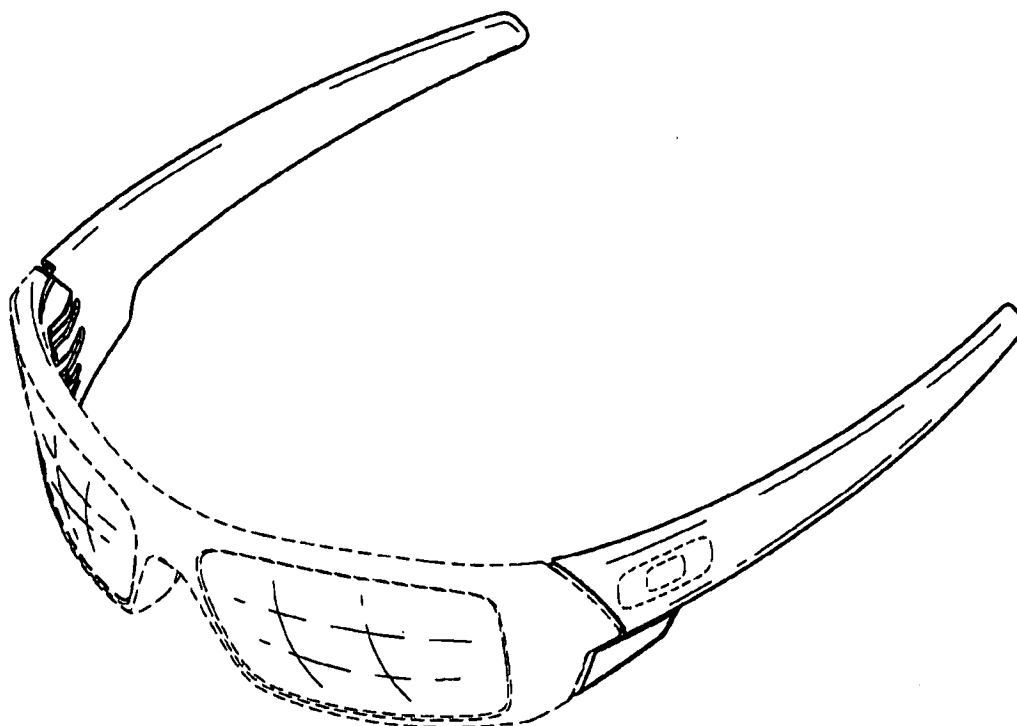


FIG. 1

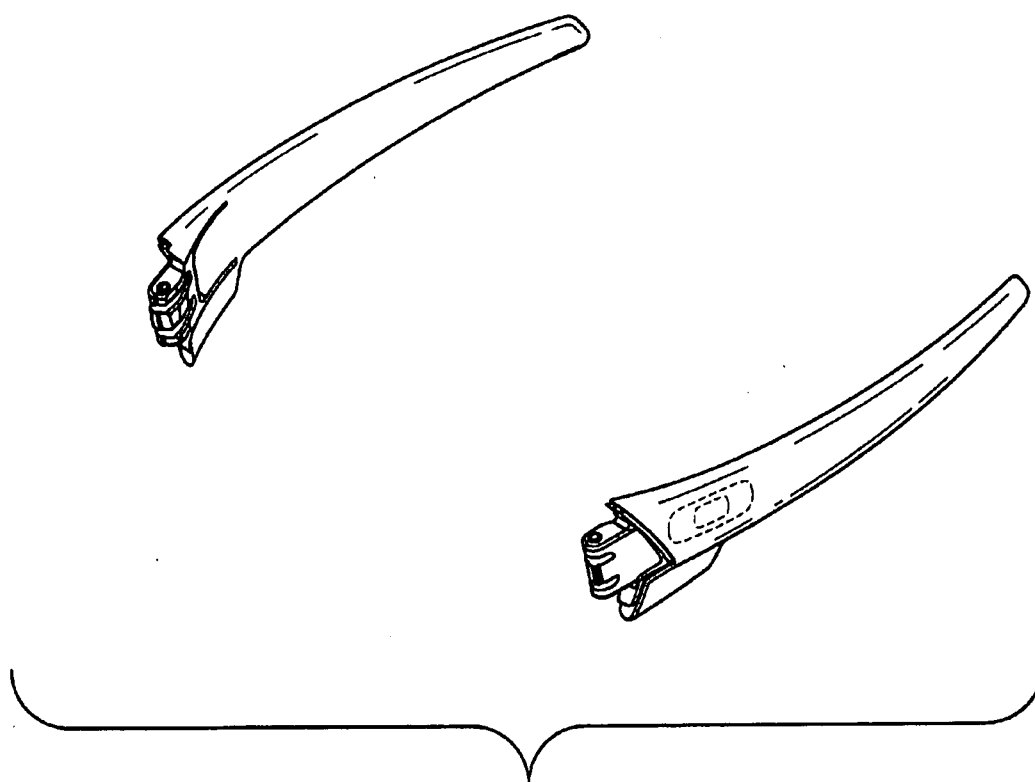


FIG. 2



FIG. 3



FIG. 4



FIG. 5

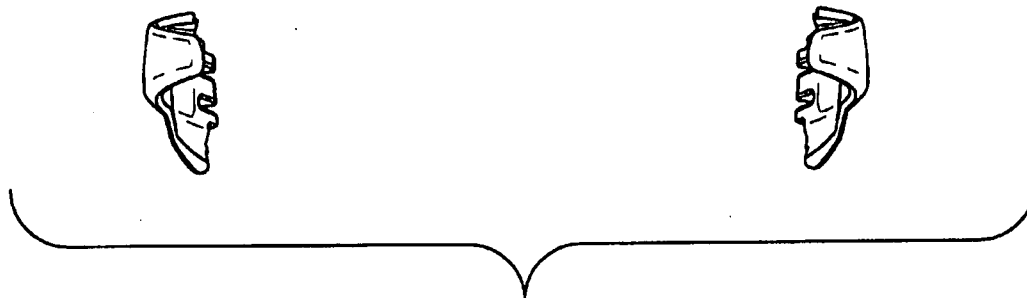


FIG. 6

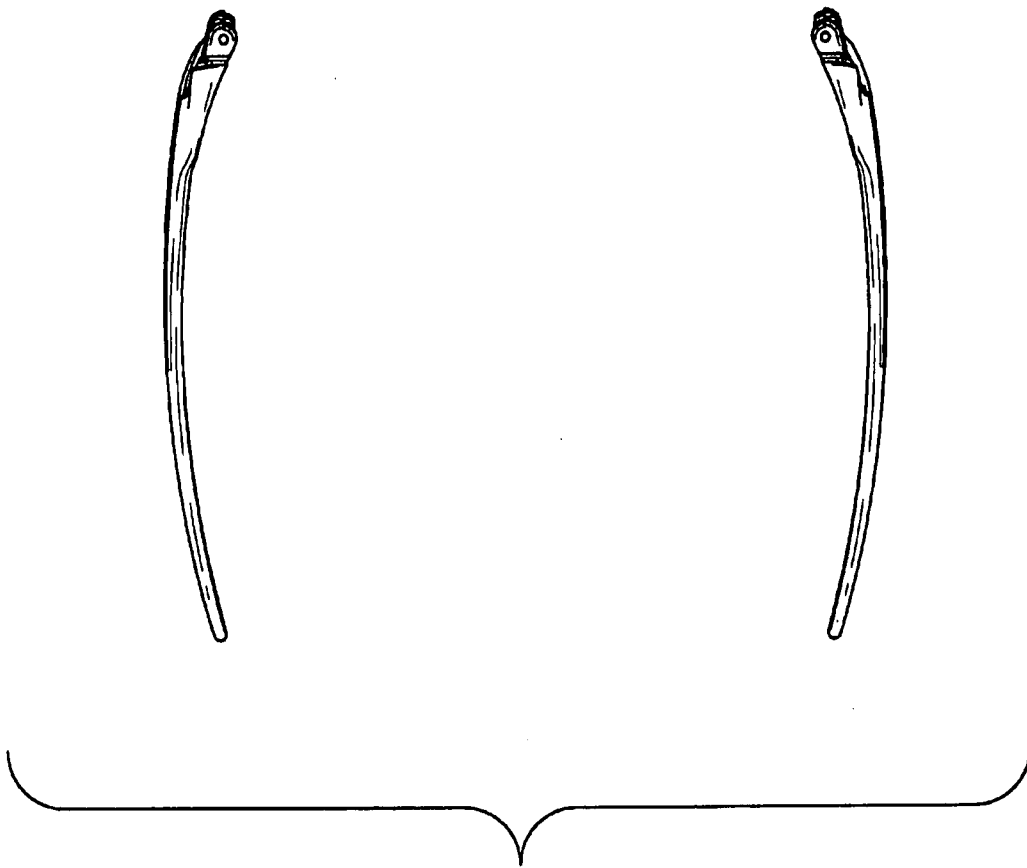


FIG. 7

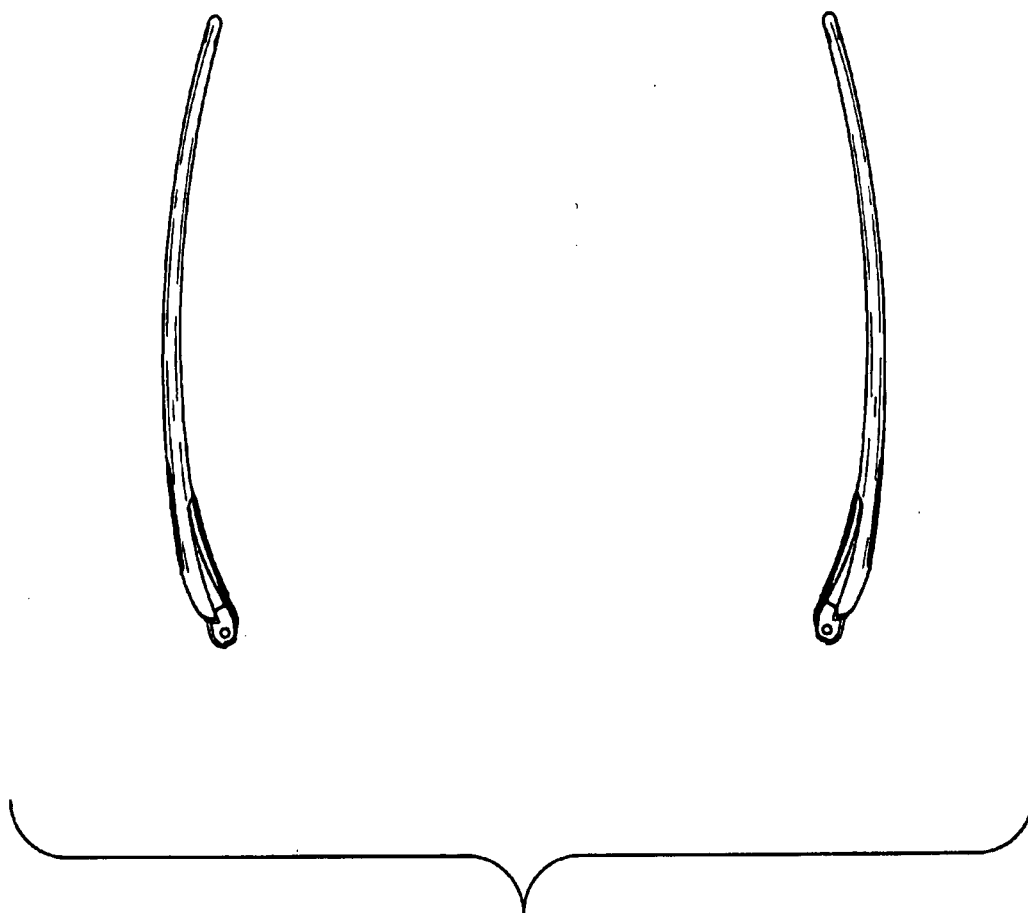


FIG. 8



US00D463478S

(12) United States Design Patent
Moritz**(10) Patent No.: US D463,478 S**
(45) Date of Patent: ** Sep. 24, 2002**(54) EYEGLASS AND EYEGLASS COMPONENTS****(75) Inventor: Hans Karsten Moritz, Foothill Ranch, CA (US)****(73) Assignee: Oakley, Inc., Foothill Ranch, CA (US)****(**) Term: 14 Years****(21) Appl. No.: 29/142,084****(22) Filed: May 16, 2001****(51) LOC (7) Cl. 16-06****(52) U.S. Cl. D16/326****(58) Field of Search D16/101, 300-330;
D29/109, 110; 350/41, 44, 51, 52, 158;
2/447, 448****(56) References Cited****U.S. PATENT DOCUMENTS**

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*Primary Examiner—Raphael Barkai**(74) Attorney, Agent, or Firm—Gregory K. Nelson***(57) CLAIM**

The ornamental design for an eyeglass and eyeglass components, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the eyeglass and the eyeglass components of the present invention;

FIG. 2 is a front elevational view thereof;

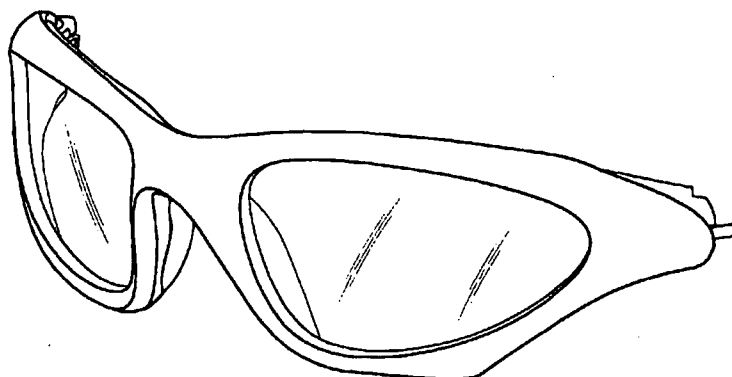
FIG. 3 is a rear elevational view thereof;

FIG. 4 is a top plan view thereof;

FIG. 5 is a bottom plan view thereof; and,

FIG. 6 is a left-side elevational view thereof, the right-side elevational view being a mirror image thereof.

Phantom lining, where utilized, is for illustrative purposes only and is not intended to limit the claimed design to the features shown in phantom.

1 Claim, 3 Drawing Sheets

US D463,478 S

Page 2

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D399,238 S	10/1998	Simioni	D422,299 S	4/2000	Jannard et al.
D399,239 S	10/1998	Jannard et al.	D423,034 S	4/2000	Arnette
D400,908 S	11/1998	Arnette	D423,035 S	4/2000	Yee et al.
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D403,692 S	1/1999	Arnette	D426,568 S	6/2000	Conway
			D432,157 S	10/2000	Simioni

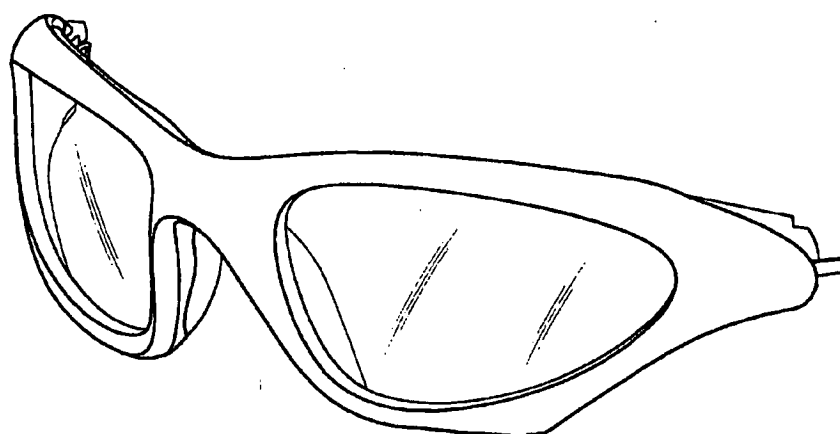


FIG. 1

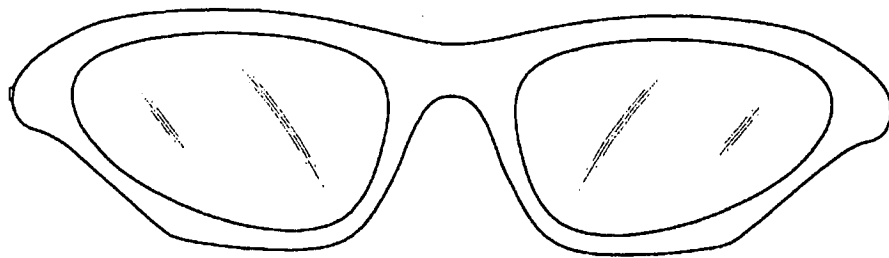


FIG. 2

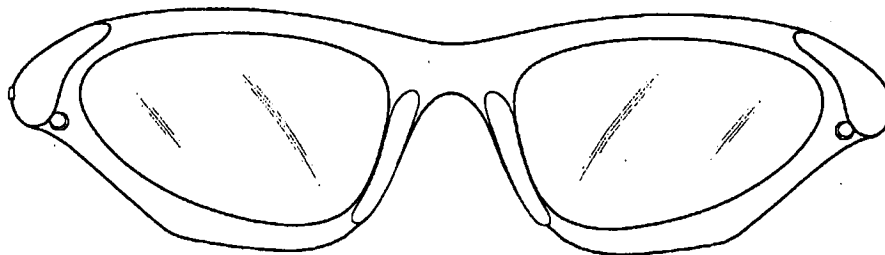


FIG. 3

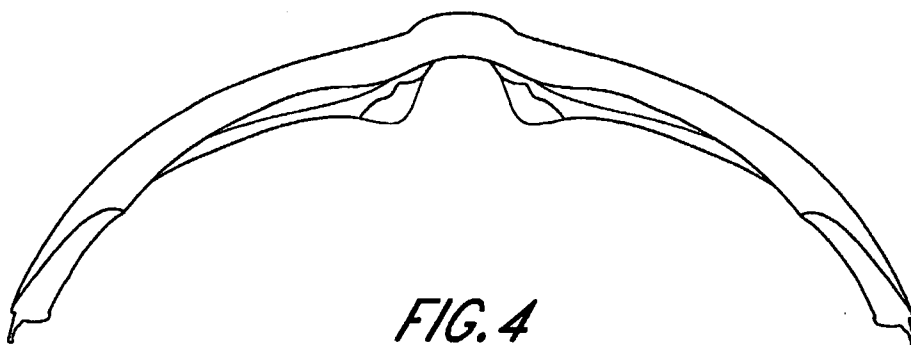


FIG. 4

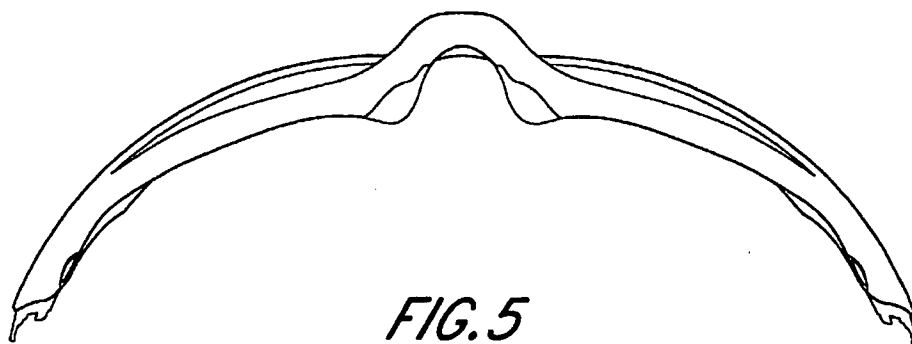


FIG. 5

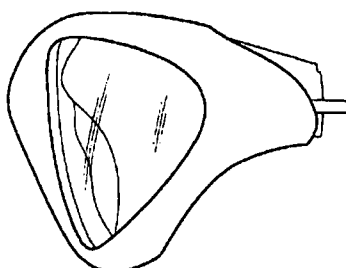


FIG. 6

United States Patent [19]
Jannard et al.

[11] **Patent Number:** **5,054,903**
[45] **Date of Patent:** **Oct. 8, 1991**

[54] **EYEWEAR TRACTION DEVICE**

[75] **Inventors:** **James H. Jannard**, San Juan Capistrano; **Gregory F. Arnette**, South Laguna Beach, both of Calif.

[73] **Assignee:** **Oakley, Inc.**, Irvine, Calif.

[21] **Appl. No.:** **436,474**

[22] **Filed:** **Nov. 20, 1989**

[51] **Int. Cl.⁵** **G02C 5/14**

[52] **U.S. Cl.** **351/123; 351/111; 351/122**

[58] **Field of Search** **351/122, 123, 111, 119, 351/121**

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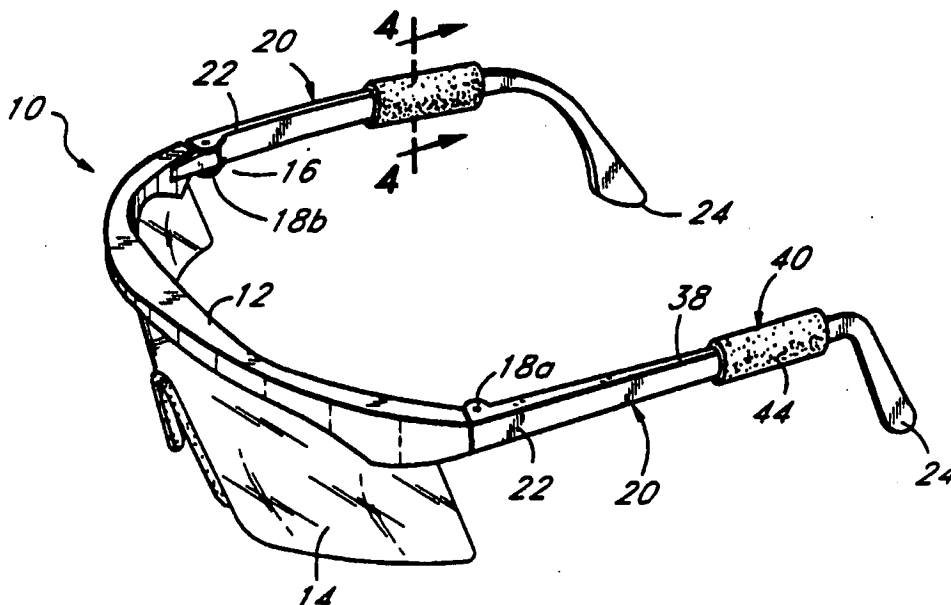
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Primary Examiner—Paul M. Dzierzynski
Attorney, Agent, or Firm—Knobbe, Martens, Olson & Bear

[57] **ABSTRACT**

In eyewear employing temples, a substantially cylindrical elastomeric traction member is disposed in a recessed seat which extends along a length of each temple to provide a contact area between the temple and the head. The traction member and seat may be sized so that the traction member is substantially flush with the adjacent temple or alternatively, the traction member may extend beyond the periphery of the temple. In either configuration, the traction device extends substantially parallel to the length of the temple.

9 Claims, 1 Drawing Sheet



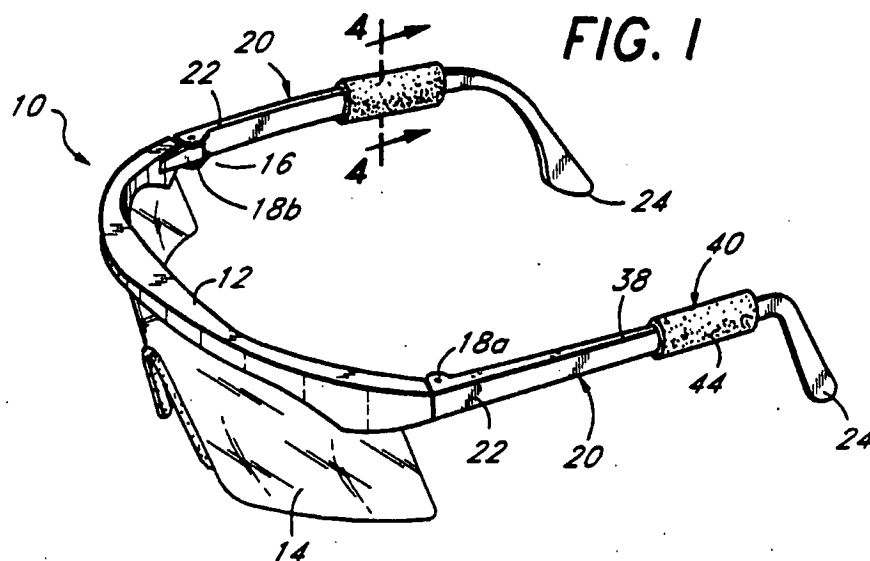


FIG. 1

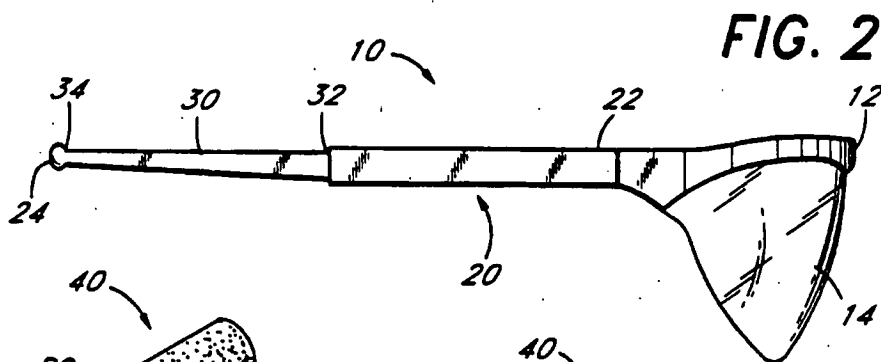


FIG. 2

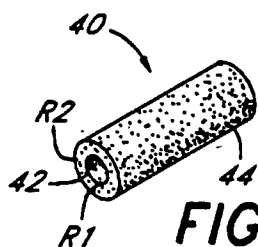


FIG. 3

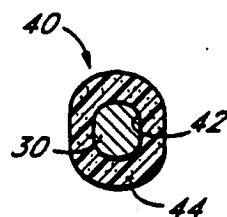


FIG. 4

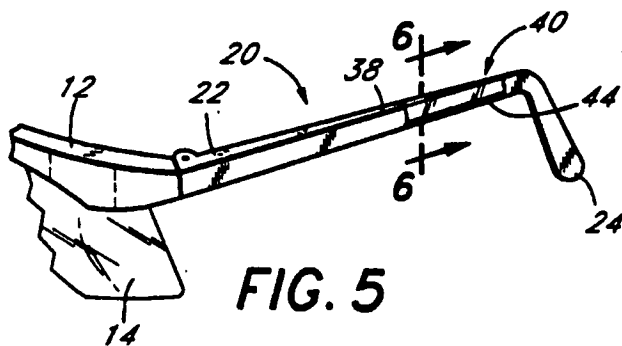


FIG. 5

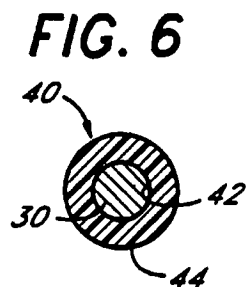


FIG. 6

EYEWEAR TRACTION DEVICE

BACKGROUND OF THE INVENTION

The present invention relates to eyewear and, more particularly, to a selectively attachable traction device for improving the retention of the eyewear about the head and a method for using the same.

While corrective lenses are specifically crafted to accommodate the unique vision defects of an individual, the frames used to retain the lenses are typically a standard size and not crafted to conform to the particular contours of an individual's head. Lenses which are employed in filtering eyewear such as sunglasses are also typically retained in stock frames. However, it is virtually impossible to mass produce stock frames which fit every individual's head; therefore, stock frames are constructed to conform to an idealized "standard" adult head.

As a result, such frames often result in a fit which is either too tight or too loose about the head of an individual. A tight fitting frame may cause localized pain and headaches, while a loose fitting frame may allow the eyewear to fall from the head and damage the frame or the lens. This is particularly disadvantageous for protective eyewear such as sunglasses which are to be used in active sports, such as bicycle racing or skiing. Additionally, in the event that corrective lenses vary in weight between the lenses, the uneven weight distribution may cause frames to locally abrade the skin.

A variety of means have been employed to improve the securing of eyewear to the head. These devices have included the use of loose strings which connect the temples of the eyewear around the back of the wearer's head, thereby preventing the glasses from becoming completely displaced from the body. Alternatively, an elastic strap connecting the temples has been employed to engage the wearer's head and secure the eyewear in the desired position.

Perhaps most frequently used, temples have been with a hook at the posterior end for engaging the wearer behind the ears. However, due to the significant variation among individuals in the distance from the appropriate position of an eyeglass lens and the back of the ear, the traditional ear hook is frequently either too far back or too far forward of the appropriate position on the wearer's ear. This causes either a painful or irritating friction if the hook is too far forward, or a loose fit if too far back.

The prior attempts to improve the retention of eyewear about the wearer's head have also included the use of rubber or rubber-like plastic boots applied to the free ends of the temples for increasing the friction between the eyeglasses and the head, such as shown in U.S. Pat. No. 3,684,356 to Bates. The Bates device, however, appears somewhat clumsy and awkward and, therefore, detracts from the appearance of the eyewear. In addition, the Bates device is limited in that it may not be adjusted relative to the eyewear; that is, the closed end of the boot prevents forward adjustment to a more anterior point of contact between the temples and the head, while an unsupported length of boot extending beyond the earpiece is undesirable.

Another prior attempt to improve eyewear retention is disclosed in the Nelson patent (U.S. Pat. No. 2,561,402), which discloses use of relatively complicated fluid chambers at the interface of the free end of the temples and the head. Nelson uses the fluid cham-

bers in an effort to evenly distribute pressure between the temple and the head. As the fluid chambers of Nelson are permanently affixed to the temple in a predetermined orientation, modification for specific individuals is unavailable. In addition, the fluid retained within the chambers adds an undesired weight to the eyewear. Further, even if the fluid chambers were removable, such removal would substantially alter the fit of the eyewear, rendering the eyewear substantially unwearable.

Notwithstanding the foregoing, there remains a need for providing a means of improving the compatibility of eyewear and the wearer so as to improve retention of the eyewear. Preferably, the eyewear retention means will enable one size to comfortably and securely fit a much larger population than can one size eyewear having the traditional ear hook.

A need also exists for a device which improves retention of eyewear without permanently altering the configuration of the eyewear. A further need exists for a retaining device which may be easily disengaged or recombined with the eyewear without drastically changing the functioning or the appearance of the eyewear. In addition to the functional requirements of the traction device, an aesthetic requirement exists so that the device may be employed as a portion of eye wear in either an unobtrusive or distinctive, but attractive, mode.

SUMMARY OF THE INVENTION

There is provided in accordance with one aspect of the present invention an improved eyewear temple of the type for retaining a pair of eyeglasses on the head of the wearer, by extending from the eyeglass frame in a posterior, i.e., distal, direction over the top of the ears of the wearer. The improved eyeglass temple of the present invention permits the elimination of the traditional hook on the posterior end of traditional temples, and allows a single size set of eyewear temples to comfortably and securely fit on a broader cross section of anatomical variations.

The eyeglass temple comprises an elongate eyeglass temple body, having a first proximal end for attaching the temple to the frame of the eyeglasses, and a second end, distal from the first end, for engaging the head of the wearer. Optionally, the first end of the temple is adapted for securing directly to the lens, such as in a single lens eyeglass system. Preferably, the first end on the temple is provided with a means for releasably pivotably engaging the eyeglass lens or eyeglass frame.

A recessed seat is disposed on the elongate temple body, in between the first and second ends, the recessed seat having a smaller cross-sectional area than the cross-sectional area of the temple body adjacent to the seat. Preferably, the recessed seat comprises an annular recess having first and second shoulders at the first and second axial ends thereof. Preferably, the axial length of the annular recess is less than about one-half of the axial length of the temple, and most preferably, less than about one-third the axial length of the temple.

The eyeglass temple is preferably additionally provided with at least one tubular traction member disposed within the recessed seat. The traction member preferably comprises an elastomeric material which enables radial expansion to fit over the distal end of the temple body, and relaxation back to provide a snug fit within the recess on the temple. The traction member is

preferably made from an elastomeric material which exhibits improved retention properties when the material is wet, and, most preferably, the exterior surface of the traction member is provided with friction enhancing structures, such as annular ridges or other patterned textures.

There is provided in accordance with another aspect of the present invention, an improved eyeglass having at least one lens, and a frame for supporting the lens in front of the eyes of the wearer. The eyeglass is further provided with a first and a second temple produced in accordance with the present invention. Preferably, the distal end of the temple is substantially straight, so that the temple does not wrap around behind the ear of the wearer.

Further features and advantages of the present invention will become apparent from the detailed description of preferred embodiments which follow, when taken together with the appended figures and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of eyewear in accordance with one embodiment of the present invention.

FIG. 2 is a side elevational view of a second embodiment of eyewear in accordance with the present invention, with the traction member removed.

FIG. 3 is a perspective view of a traction member in accordance with the present invention.

FIG. 4 is a cross-sectional view taken along line 4—4 of FIG. 1.

FIG. 5 is a perspective view showing an alternative embodiment of the traction member.

FIG. 6 is a cross-sectional view taken along line 6—6 of FIG. 5.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

As used in the present application, "eyewear" is a general term intended to embrace optical devices containing corrective lenses for defects in vision or lenses for such special purposes as filters for absorbing or blocking portions of the electromagnetic spectrum, providing physical shields for the eyes or making available other physical or optical functions for protective or visual assisting purposes.

As shown in FIG. 1, eyewear 10 adapted to position a lens in a predetermined orientation relative to the eyes includes a frame 12, lens 14 and temples 20. Preferably, the lens 14 is joined to the frame 12 so as to position the lens 14 before the eyes. As shown in FIGS. 1, 2 and 6, the temples 20 may be pivotally affixed or joined to the frame 12. Although the temples 20 are shown in FIG. 1 as pivotally affixed to the frame 12, the temples 20 may be permanently attached in a predetermined orientation or selectively engageable with the frame 12 without circumventing the scope of the present invention. Alternatively, the frame 12 may be eliminated entirely by securing the temples 20 with or without temple hinges directly to the lens 14 by thermoplastic bonding, adhesives screws or other known fastening means which are suitable for the material of the lens and temples.

As is well known in the art, the frame 12 and temples 20 may be conveniently made of molded plastic or a variety of other materials. The lens 14 may take any of a number of configurations and may be formed of sheet plastic, molded plastic or glass as determined by the application of the lens.

Each temple 20 is defined by a proximal end 22 and a distal end 24 wherein the proximal end 22 is affixed either permanently or detachably to the frame 12. The permanent attachment of the temples to the frame 12 may be accomplished through molding or thermoplastic bonding. The detachable engagement of the temples 20 and the frame 12 is provided by the use of a snap fit or fasteners including screws or pins, as are known in the art.

Although the earstems shown in FIG. 1 are affixed to the frame 12, the earstem 20 may be attached directly to the lens 14. Preferably, the earstems 20 are hingeably attached to the frame 12 or lens 14 and most preferably, hingeably and removably attached, as well known in the art.

As shown in FIG. 1, in a typical hingeable connection, the frame 12 or lens 14 includes a hinge aperture (not illustrated) extending through a protruding flange 16. The earstem 20 includes a pair of parallel apertured flanges 18a, 18b spaced so as to receive the flange 16 of the frame 12 or lens 14 therebetween. The apertures in the earstem 20 are aligned with the apertures of the frame 12 or lens 14 and a pin is inserted so as to permit rotation of the frame 12 or lens 14 relative to the earstem 20, thereby providing a hingeable connection. In a typically readily detachable hinge, the aperture in the flange 16 of the frame 12 or lens 14 is replaced by an integral pin (not illustrated) which extends away from the flange 16 in opposite directions along the same axis as the aperture. The pinned flange 16 is inserted by deformation between the opposing flanges 18a, 18b and the integral pin snaps into the aperture on the flanges 18a, 18b, thereby providing a readily detachable hinge.

As shown in FIGS. 1 and 5, the distal end 24 may be curved so as to provide loops which are disposed behind the ears when the eyewear is worn. However, as the looped temples shown in FIGS. 1 and 5 may impinge upon the head in undesired locations when employed on heads of different sizes, the looped temples are not well suited to accommodate a wide variety of head sizes. Thus, the preferred embodiment shown in FIG. 2 includes a straight temple which, when used in conjunction with the present invention, provides more universally fitting eyewear and eliminates the traditional ear hook which can cause discomfort or distraction for many wearers.

As shown in FIG. 2, a recessed seat 30 is disposed intermediate of the proximal and distal ends 22, 24. As shown in FIG. 2, the seat 30 is preferably located adjacent the distal end 24 of the temple 20, so that the posterior shoulder 34 is substantially coincident with the distal end 24. However, as will be apparent, if it is desired to extend the temples in a posterior direction well beyond the ears, the distance between posterior shoulder 34 and distal end 24 can be proportionately increased to maintain seat 30 near the ear.

The recessed seat 30 is defined by posterior shoulder 34 and preferably an anterior shoulder 32, such that the anterior shoulder 32 is disposed between the posterior shoulder 34 and the proximal end 22. Preferably, the cross-sectional dimension of the seat 30 between the anterior and posterior shoulders 32, 34 is smaller than the cross-sectional dimension of the adjacent temple 20.

Preferably, the posterior shoulder 34 is a sufficient distance from the anterior shoulder 32 so that at least one traction member 40 may be retained therebetween. However, the seat 30 may be configured so as to extend substantially the entire length of the temple or alterna-

tively, may extend only a portion of the overall length of the temple. Typically, the seat extends less than about one-half or one-third the length of the temple and is disposed on the posterior portion of the temple.

Although the seat is shown as defined by an anterior shoulder 32 and a posterior shoulder 34, the present invention may be practiced with a seat 30 defined only by a posterior shoulder 34 for preventing unintended axial displacement of the traction member in the posterior direction.

When the seat 30 is defined by only the posterior shoulder 34, the cross-sectional area of the seat may taper from being substantially coincident with an anterior cross-sectional area of the temple to the reduced cross-sectional area at the posterior shoulder 34. The posterior shoulder thereby prevents unintentional axial displacement of the traction member in the posterior direction. Axial displacement of the traction member in the anterior direction is inhibited by the expanding cross-sectional area of the seat in a tapered embodiment, as the seat extends in the anterior direction, or simply by a friction fit in the absence of a taper or an anterior shoulder.

Preferably, the seat 30 is located so that upon operable engagement of the traction member 40 within the seat 30, the traction member 40 provides an interface between the eyewear and the head. That is, the traction member 40 contacts the head.

Referring to FIG. 3, an elongate tubular traction member 40 is shown. In the preferred embodiment, the traction member 40 is formed substantially in the shape of a hollow cylinder having an inner surface 42 of radius R1 and outer surface 44 of radius R2, wherein radius R1 is less than radius R2. Preferably, radius R1 is expandable to permit passage of the distal end 24 of the temple 20 through the interior of the traction member 40 without exceeding the elastic limits of deformation of the traction member 40.

As shown in FIG. 4, the traction member 40 is preferably comprised of a material having sufficient elasticity that the inner surface 42 of the traction member 40 snugly contacts the surface of a seat 30 having an oblong or rectangular cross-section with a cross-sectional area greater than that of R1 in the unexpanded state. Referring to FIG. 6, the inner surface 42 will also preferably conform snugly to the surface of a seat 30 having a substantially circular cross-section.

Other embodiments of the traction member 40 may be employed, such as one having an open rectangular or triangular cross-sectional configuration having a bias so that the open legs of the triangle or rectangle are biased towards one another to tend to form a tubular element. Thus, traction devices can take the form of an elongate body which is split axially along one wall so that it does not form a complete tube. The bias should be sufficient so that the opposing inner surfaces 42 of the traction member 40 cooperatively engage the periphery of the recessed seat 30.

The traction member 40 may be formed by molding or extruding processes, as well known in the art. Preferably, the outer surface 42 is configured to enhance the coefficient of static friction between the eyewear and the head. The outer surface 44 may be formed to exhibit a variety of static friction coefficient enhancing configurations, such as a grid, waffle, or ribbed pattern (not shown). Typically, the outer surface 42 produced by extrusion will exhibit axially oriented patterns, while

molded outer surfaces may exhibit axially and/or radially oriented patterns.

As discussed infra, the traction member 40 is preferably formed of an elastomeric material exhibiting sufficient flexibility or elasticity to allow the traction member 40 to expand while being slipped over the temple distal end 24 and to contract back within seat 30 after passing over the distal end.

In a particularly preferred embodiment, the traction member 40 is formed of a relatively soft elastomeric material having a coefficient of sliding friction that increases when the material is wetted. Such a material, sometimes referred to as hydrophilic, tends to enhance retention of the traction member 40 in position on the wearer's head as the wearer perspires or encounters moisture, as during skiing. One suitable material which can be readily molded by conventional techniques is marketed under the name KROTON G™, a product of the Shell Oil Company.

The traction member 40 may comprise a resilient sponge-like elastomeric material, having a relatively high porosity, as shown in FIGS. 3 and 4. Alternatively, as shown in FIG. 6, the traction member 40 may comprise a substantially solid, i.e., fine or no porosity, yet flexible material. In addition, the traction member 40 may be made of materials having different densities, thereby providing traction members 40 having different weights, which may be employed to counterbalance lenses of differing weights, so as to distribute the weight of the eyewear 10 more evenly about the head.

The length of the traction member 40 is preferably no greater than and most preferably substantially equal to the distance between the anterior and posterior shoulders 32, 34. Although the traction member 40 is illustrated as extending roughly one-third or one-half the overall length of the temple, the traction members 40 within the present invention can extend anywhere from substantially the entire length of the temple 20 to only a relatively small portion thereof, as depending upon the configuration of the seat 30. Alternatively, a plurality of traction members 40 may be axially aligned within the seat 30. The traction members 40 may be selected so that a combined length of the members 40 substantially equals the distance between the anterior and the posterior shoulders 32, 34 or alternatively, the combined axial length of the members 40 may be such that an axial space separates adjacent traction members 40 within the seat.

In assembling the present invention, the traction member 40 is engaged with a temple 20 by passing the distal end 24 of the temple 20 through the tubular passageway within traction member 40. Alternatively, the temple 20 may be detached from the frame 12 or lens 14 and the proximal end 22 may be passed through the tubular passageway of the traction member 40. Therefore, the preferred construction of the traction member 40 which elastically passes over the distal end may be obviated. The traction member 40 is then moved along the temple 20 until the inner surface 42 engages the seat 30. In an embodiment in which the seat 30 has a length substantially equal to the length of the traction member 40, as the traction member 40 is received within the seat 30, further unintended motion along the temple 20 is prevented by engagement of the anterior and posterior shoulders 32, 34 with the traction member 40.

Alternatively, the seat 30 may have a sufficient axial length so as to retain a plurality of traction members 40 between the anterior and posterior shoulders 32, 34.

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The use of multiple traction members 40 allows for accommodating fashion considerations as well as high retaining forces for active uses, such as volleyball or basketball. Upon engagement of the traction member 40 within the seat 30, the outer surface 44 of the traction member 40 may be disposed outside of the periphery of the temple 20, as shown in FIG. 1 or, alternatively, may be substantially flush with the periphery 38 of the adjacent temple 20, as shown in FIG. 5. Traction members are preferably provided having a variety of wall thicknesses, i.e., the difference between R1 and R2. Thus, the wearer can select a flush fitting traction member as illustrated in FIG. 5 or a radially enlarged traction member as illustrated in FIG. 1, depending upon that wearer's perception of the need for enhanced traction or sleek appearance.

As the majority of the length of the temple 20 in the preferred embodiment is dominated by the periphery of the temple 20 rather than the seat 30, if the traction members 40 are removed from the temples 20, the fitting of the eyewear 10 will not be substantially denigrated. However, the length of the traction member 40, when engaged in the seat 30, provides a sufficient contact area to increase the resistance to movement of the eyewear 10 relative to the head.

This present invention has been described in detail in connection with the preferred embodiments, but these are examples only and the present invention is not restricted thereto. It will be easily understood by those skilled in the art that other variations and modifications can be easily made within the scope of this invention, which is defined by the following claims.

It is claimed:

1. An improved eyewear temple for retaining eyeglasses on the head of the wearer and reducing abrasion caused by movement of said eyewear, comprising:
an elongate eyewear temple body;

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a first end on the temple for attaching the temple to the frame of the eyeglasses;

a second end on the temple, distal said first end, for engaging the head of the wearer;

a recessed seat interposed between said first and second ends having a smaller cross-sectional area than that of said temple portion adjacent said seat, said seat being separated from the remainder of said temple by first and second shoulders; and

at least one tubular traction member disposed within the recessed seat.

2. An eyewear temple as in claim 1, wherein the traction member is removably disposed within the seat.

3. An eyewear temple as in claim 1, wherein the tubular traction member comprises a resilient elastomeric material.

4. An improved eyewear temple as in claim 3, wherein said elastomeric material exhibits a coefficient of sliding friction that increases when the material is wetted.

5. An eyewear temple as in claim 1, wherein the traction member extends radially outwardly beyond the surface of the adjacent portion of the temple.

6. An eyewear temple as in claim 1, wherein the axial length of the seat is less than about one-half of the axial length of the temple.

7. An eyewear temple as in claim 6, wherein the recessed seat extends no more than about one-third the length of the temple.

8. An eyewear temple as in claim 1, wherein a single tubular traction member disposed within the recessed seat extends substantially the entire distance between said first and second shoulders.

9. An eyewear temple as in claim 1, wherein the thickness of the traction member is such that the outer surface of the traction member is substantially flush with the periphery of the adjacent temple.

* * * * *



US005137342A

United States Patent [19]

Jannard et al.

[11] Patent Number: **5,137,342**[45] Date of Patent: * **Aug. 11, 1992**[54] **EYEWEAR TRACTION DEVICE**[75] Inventors: **James H. Jannard**, San Juan Capistrano; **Gregory F. Arnette**, South Laguna Beach, both of Calif.[73] Assignee: **Oakley, Inc.**, Irvine, Calif.

[*] Notice: The portion of the term of this patent subsequent to Oct. 8, 2008 has been disclaimed.

[21] Appl. No.: **695,683**[22] Filed: **May 3, 1991****Related U.S. Application Data**

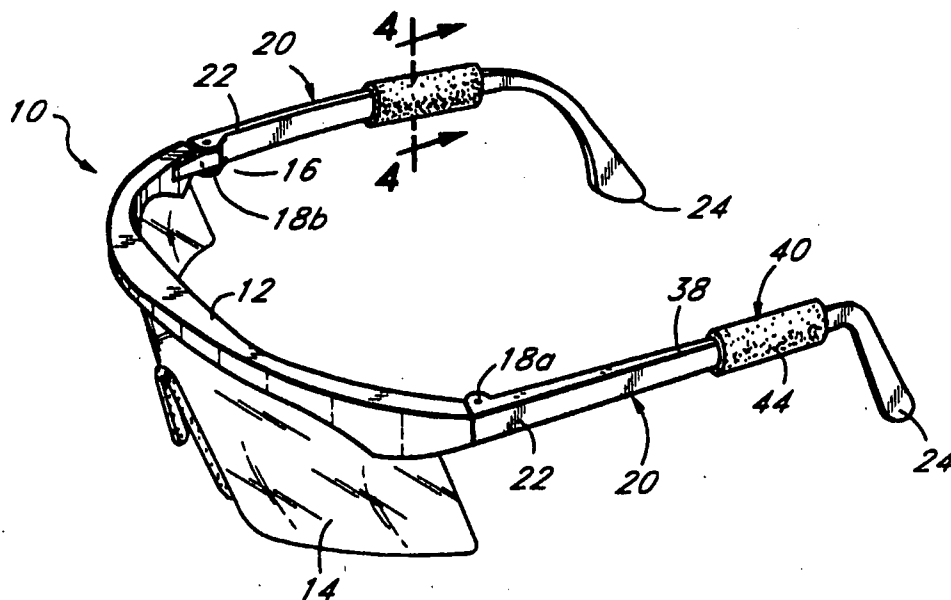
[63] Continuation of Ser. No. 436,474, Nov. 20, 1989, Pat. No. 5,054,903.

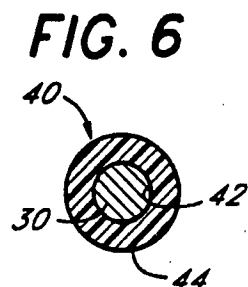
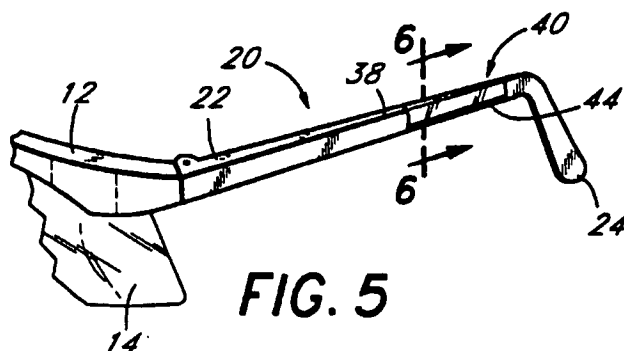
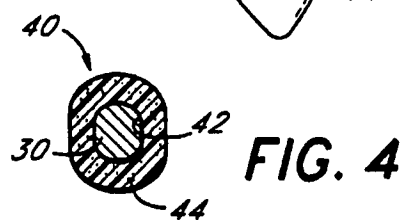
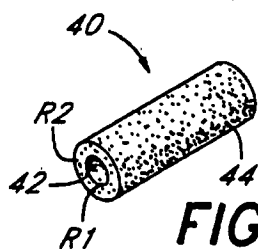
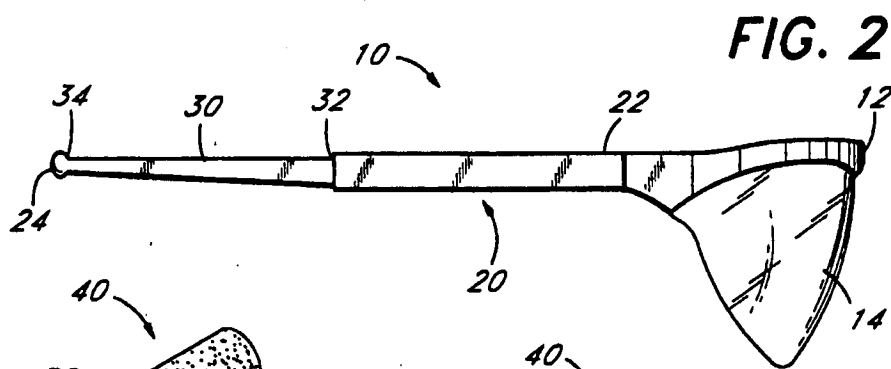
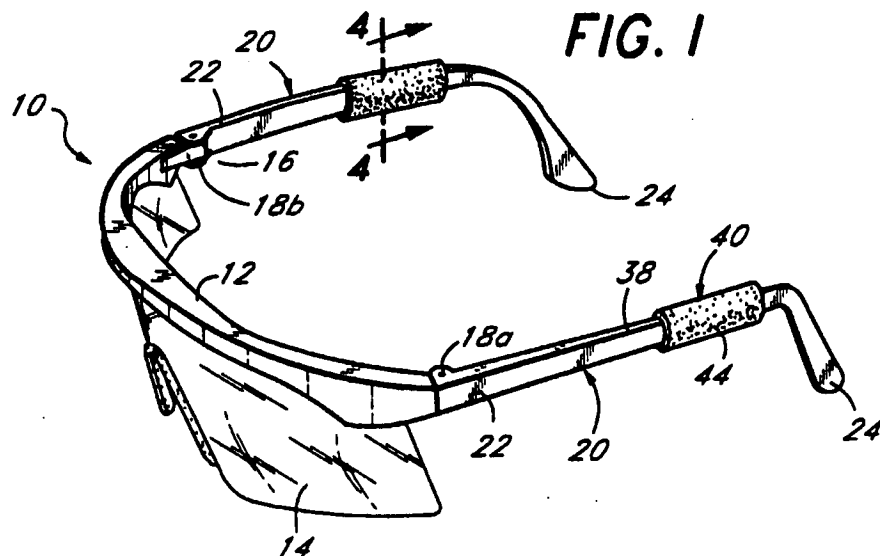
[51] Int. Cl.⁵ **G02S 5/14**[52] U.S. Cl. **351/123; 351/122; 351/111**[58] Field of Search **351/122, 123, 111, 119, 351/121**[56] **References Cited****U.S. PATENT DOCUMENTS**2,031,771 2/1935 Grier 351/123
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Primary Examiner—Paul M. Dzierzynski*Attorney, Agent, or Firm*—Knobbe, Martens, Olson & Bear[57] **ABSTRACT**

In eyewear employing temples, a substantially cylindrical elastomeric traction member is disposed in a recessed seat which extends along a length of each temple to provide a contact area between the temple and the head. The traction member and seat may be sized so that the traction member is substantially flush with the adjacent temple or alternatively, the traction member may extend beyond the periphery of the temple. In either configuration, the traction device extends substantially parallel to the length of the temple.

32 Claims, 1 Drawing Sheet



EYEWEAR TRACTION DEVICE

This application is a continuation of application Ser. No. 436,474 filed Nov. 20, 1989, now U.S. Pat. No. 5,054,90.

BACKGROUND OF THE INVENTION

The present invention relates to eyewear and, more particularly, to a selectively attachable traction device for improving the retention of the eyewear about the head and a method for using the same.

While corrective lenses are specifically crafted to accommodate the unique vision defects of an individual, the frames used to retain the lenses are typically a standard size and not crafted to conform to the particular contours of an individual's head. Lenses which are employed in filtering eyewear such as sunglasses are also typically retained in stock frames. However, it is virtually impossible to mass produce stock frames which fit every individual's head; therefore, stock frames are constructed to conform to an idealized "standard" adult head.

As a result, such frames often result in a fit which is either too tight or too loose about the head of an individual. A tight fitting frame may cause localized pain and headaches, while a loose fitting frame may allow the eyewear to fall from the head and damage the frame or the lens. This is particularly disadvantageous for protective eyewear such as sunglasses which are to be used in active sports, such as bicycle racing or skiing. Additionally, in the event that corrective lenses vary in weight between the lenses, the uneven weight distribution may cause frames to locally abrade the skin.

A variety of means have been employed to improve the securing of eyewear to the head. These devices have included the use of loose strings which connect the temples of the eyewear around the back of the wearer's head, thereby preventing the glasses from becoming completely displaced from the body. Alternatively, an elastic strap connecting the temples has been employed to engage the wearer's head and secure the eyewear in the desired position.

Perhaps most frequently used, temples have been provided with a hook at the posterior end for engaging the wearer behind the ears. However, due to the significant variation among individuals in the distance from the appropriate position of an eyeglass lens and the back of the ear, the traditional ear hook is frequently either too far back or too far forward of the appropriate position on the wearer's ear. This causes either a painful or irritating friction if the hook is too far forward, or a loose fit if too far back.

The prior attempts to improve the retention of eyewear about the wearer's head have also included the use of rubber or rubber-like plastic boots applied to the free ends of the temples for increasing the friction between the eyeglasses and the head, such as shown in Bates U.S. Pat. No. 3,684,356. The Bates device, however, appears somewhat clumsy and awkward and, therefore, detracts from the appearance of the eyewear. In addition, the Bates device is limited in that it may not be adjusted relative to the eyewear; that is, the closed end of the boot prevents forward adjustment to a more anterior point of contact between the temples and the head, while an unsupported length of boot extending beyond the earpiece is undesirable.

Another prior attempt to improve eyewear retention is disclosed in the Nelson patent (U.S. Pat. No. 2,561,402), which discloses use of relatively complicated fluid chambers at the interface of the free end of the temples and the head. Nelson uses the fluid chambers in an effort to evenly distribute pressure between the temple and the head. As the fluid chambers of Nelson are permanently affixed to the temple in a predetermined orientation, modification for specific individuals is unavailable. In addition, the fluid retained within the chambers adds an undesired weight to the eyewear. Further, even if the fluid chambers were removable, such removal would substantially alter the fit of the eyewear, rendering the eyewear substantially unwearable.

Notwithstanding the foregoing, there remains a need for providing a means of improving the compatibility of eyewear and the wearer so as to improve retention of the eyewear. Preferably, the eyewear retention means will enable one size to comfortably and securely fit a much larger population than can one size eyewear having the traditional ear hook.

A need also exists for a device which improves retention of eyewear without permanently altering the configuration of the eyewear. A further need exists for a retaining device which may be easily disengaged or recombined with the eyewear without drastically changing the functioning or the appearance of the eyewear. In addition to the functional requirements of the traction device, an aesthetic requirement exists so that the device may be employed as a portion of eye wear in either an unobtrusive or distinctive, but attractive, mode.

SUMMARY OF THE INVENTION

There is provided in accordance with one aspect of the present invention an improved eyewear temple of the type for retaining a pair of eyeglasses on the head of the wearer, by extending from the eyeglass frame in a posterior, i.e., distal, direction over the top of the ears of the wearer. The improved eyeglass temple of the present invention permits the elimination of the traditional hook on the posterior end of traditional temples, and allows a single size set of eyewear temples to comfortably and securely fit on a broader cross section of anatomical variations.

The eyeglass temple comprises an elongate eyeglass temple body, having a first proximal end for attaching the temple to the frame of the eyeglasses, and a second end, distal from the first end, for engaging the head of the wearer. Optionally, the first end of the temple is adapted for securing directly to the lens, such as in a single lens eyeglass system. Preferably, the first end on the temple is provided with a means for releasably pivotably engaging the eyeglass lens or eyeglass frame.

A recessed seat is disposed on the elongate temple body, in between the first and second ends, the recessed seat having a smaller cross-sectional area than the cross-sectional area of the temple body adjacent to the seat. Preferably, the recessed seat comprises an annular recess having first and second shoulders at the first and second axial ends thereof. Preferably, the axial length of the annular recess is less than about one-half of the axial length of the temple, and most preferably, less than about one-third the axial length of the temple.

The eyeglass temple is preferably additionally provided with at least one tubular traction member disposed within the recessed seat. The traction member

preferably comprises an elastomeric material which enables radial expansion to fit over the distal end of the temple body, and relaxation back to provide a snug fit within the recess on the temple. The traction member is preferably made from an elastomeric material which exhibits improved retention properties when the material is wet, and, most preferably, the exterior surface of the traction member is provided with friction enhancing structures, such as annular ridges or other patterned textures.

There is provided in accordance with another aspect of the present invention, an improved eyeglass having at least one lens, and a frame for supporting the lens in front of the eyes of the wearer. The eyeglass is further provided with a first and a second temple produced in accordance with the present invention. Preferably, the distal end of the temple is substantially straight, so that the temple does not wrap around behind the ear of the wearer.

Further features and advantages of the present invention will become apparent from the detailed description of preferred embodiments which follow, when taken together with the appended figures and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a perspective view of eyewear in accordance with one embodiment of the present invention.

FIG. 2 is a side elevational view of a second embodiment of eyewear in accordance with the present invention, with the traction member removed.

FIG. 3 is a perspective view of a traction member in accordance with the present invention.

FIG. 4 is a cross-sectional view taken along line 4—4 of FIG. 1.

FIG. 5 is a perspective view showing an alternative embodiment of the traction member.

FIG. 6 is a cross-sectional view taken along line 6—6 of FIG. 5.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

As used in the present application, "eyewear" is a general term intended to embrace optical devices containing corrective lenses for defects in vision or lenses for such special purposes as filters for absorbing or blocking portions of the electromagnetic spectrum, providing physical shields for the eyes or making available other physical or optical functions for protective or visual assisting purposes.

As shown in FIG. 1, eyewear 10 adapted to position a lens in a predetermined orientation relative to the eyes includes a frame 12, lens 14 and temples 20. Preferably, the lens 14 is joined to the frame 12 so as to position the lens 14 before the eyes. As shown in FIGS. 1, 2 and 6, the temples 20 may be pivotally affixed or joined to the frame 12. Although the temples 20 are shown in FIG. 1 as pivotally affixed to the frame 12, the temples 20 may be permanently attached in a predetermined orientation or selectively engageable with the frame 12 without circumventing the scope of the present invention. Alternatively, the frame 12 may be eliminated entirely by securing the temples 20 with or without temple hinges directly to the lens 14 by thermoplastic bonding, adhesives screws or other known fastening means which are suitable for the material of the lens and temples.

As is well known in the art, the frame 12 and temples 20 may be conveniently made of molded plastic or a variety of other materials. The lens 14 may take any of

a number of configurations and may be formed of sheet plastic, molded plastic or glass as determined by the application of the lens.

Each temple 20 is defined by a proximal end 22 and a distal end 24 wherein the proximal end 22 is affixed either permanently or detachably to the frame 12. The permanent attachment of the temples to the frame 12 may be accomplished through molding or thermoplastic bonding. The detachable engagement of the temples 20 and the frame 12 is provided by the use of a snap fit or fasteners including screws or pins, as are known in the art.

Although the earstems shown in FIG. 1 are affixed to the frame 12, the earstem 20 may be attached directly to the lens 14. Preferably, the earstems 20 are hingeably attached to the frame 12 or lens 14 and most preferably, hingeably and removably attached, as well known in the art.

As shown in FIG. 1, in a typical hingeable connection, the frame 12 or lens 14 includes a hinge aperture (not illustrated) extending through a protruding flange 16. The earstem 20 includes a pair of parallel apertured flanges 18a, 18b spaced so as to receive the flange 16 of the frame 12 or lens 14 therebetween. The apertures in the earstem 20 are aligned with the apertures of the frame 12 or lens 14 and a pin is inserted so as to permit rotation of the frame 12 or lens 14 relative to the earstem 20, thereby providing a hingeable connection. In a typically readily detachable hinge, the aperture in the flange 16 of the frame 12 or lens 14 is replaced by an integral pin (not illustrated) which extends away from the flange 16 in opposite directions along the same axis as the aperture. The pinned flange 16 is inserted by deformation between the opposing flanges 18a, 18b and the integral pin snaps into the aperture on the flanges 18a, 18b, thereby providing a readily detachable hinge.

As shown in FIGS. 1 and 5, the distal end 24 may be curved so as to provide loops which are disposed behind the ears when the eyewear is worn. However, as the looped temples shown in FIGS. 1 and 5 may impinge upon the head in undesired locations when employed on heads of different sizes, the looped temples are not well suited to accommodate a wide variety of head sizes. Thus, the preferred embodiment shown in FIG. 2 includes a straight temple which, when used in conjunction with the present invention, provides more universally fitting eyewear and eliminates the traditional ear hook which can cause discomfort or distraction for many wearers.

As shown in FIG. 2, a recessed seat 30 is disposed intermediate of the proximal and distal ends 22, 24. As shown in FIG. 2, the seat 30 is preferably located adjacent the distal end 24 of the temple 20, so that the posterior shoulder 34 is substantially coincident with the distal end 24. However, as will be apparent, if it is desired to extend the temples in a posterior direction well beyond the ears, the distance between posterior shoulder 34 and distal end 24 can be proportionately increased to maintain seat 30 near the ear.

The recessed seat 30 is defined by posterior shoulder 34 and preferably an anterior shoulder 32, such that the anterior shoulder 32 is disposed between the posterior shoulder 34 and the proximal end 22. Preferably the cross-sectional dimension of the seat 30 between the anterior and posterior shoulders 32, 34 is smaller than the cross-sectional dimension of the adjacent temple 20.

Preferably, the posterior shoulder 34 is a sufficient distance from the anterior shoulder 32 so that at least

one traction member 40 may be retained therebetween. However, the seat 30 may be configured so as to extend substantially the entire length of the temple or alternatively, may extend only a portion of the overall length of the temple. Typically, the seat extends less than about one-half or one-third the length of the temple and is disposed on the posterior portion of the temple.

Although the seat is shown as defined by an anterior shoulder 32 and a posterior shoulder 34, the present invention may be practiced with a seat 30 defined only by a posterior shoulder 34 for preventing unintended axial displacement of the traction member in the posterior direction.

When the seat 30 is defined by only the posterior shoulder 34, the cross-sectional area of the seat may taper from being substantially coincident with an anterior cross-sectional area of the temple to the reduced cross-sectional area at the posterior shoulder 34. The posterior shoulder thereby prevents unintentional axial displacement of the traction member in the posterior direction. Axial displacement of the traction member in the anterior direction is inhibited by the expanding cross-sectional area of the seat in a tapered embodiment, as the seat extends in the anterior direction, or simply by a friction fit in the absence of a taper or an anterior shoulder.

Preferably, the seat 30 is located so that upon operable engagement of the traction member 40 within the seat 30, the traction member 40 provides an interface between the eyewear and the head. That is, the traction member 40 contacts the head.

Referring to FIG. 3, an elongate tubular traction member 40 is shown. In the preferred embodiment, the traction member 40 is formed substantially in the shape of a hollow cylinder having an inner surface 42 of radius R1 and outer surface 44 of radius R2, wherein radius R1 is less than radius R2. Preferably, radius R1 is expandable to permit passage of the distal end 24 of the temple 20 through the interior of the traction member 40 without exceeding the elastic limits of deformation of the traction member 40.

As shown in FIG. 4, the traction member 40 is preferably comprised of a material having sufficient elasticity that the inner surface 42 of the traction member 40 snugly contacts the surface of a seat 30 having an oblong or rectangular cross-section with a cross-sectional area greater than that of R1 in the unexpanded state. Referring to FIG. 6, the inner surface 42 will also preferably conform snugly to the surface of a seat 30 having a substantially circular cross-section.

Other embodiments of the traction member 40 may be employed, such as one having an open rectangular or triangular cross-sectional configuration having a bias so that the open legs of the triangle or rectangle are biased towards one another to tend to form a tubular element. Thus, traction devices can take the form of an elongate body which is split axially along one wall so that it does not form a complete tube. The bias should be sufficient so that the opposing inner surfaces 42 of the traction member 40 cooperatively engage the periphery of the recessed seat 30.

The traction member 40 may be formed by molding or extruding processes, as well known in the art. Preferably, the outer surface 42 is configured to enhance the coefficient of static friction between the eyewear and the head. The outer surface 44 may be formed to exhibit a variety of static friction coefficient enhancing configurations, such as a grid, waffle, or ribbed pattern (not

shown). Typically, the outer surface 42 produced by extrusion will exhibit axially oriented patterns, while molded outer surfaces may exhibit axially and/or radially oriented patterns.

As discussed infra, the traction member 40 is preferably formed of an elastomeric material exhibiting sufficient flexibility or elasticity to allow the traction member 40 to expand while being slipped over the temple distal end 24 and to contract back within seat 30 after passing over the distal end.

In a particularly preferred embodiment, the traction member 40 is formed of a relatively soft elastomeric material having a coefficient of sliding friction that increases when the material is wetted. Such a material, sometimes referred to as hydrophilic, tends to enhance retention of the traction member 40 in position on the wearer's head as the wearer perspires or encounters moisture, as during skiing. One suitable material which can be readily molded by conventional techniques is marketed under the name KROTON G™, a product of the Shell Oil Company.

The traction member 40 may comprise a resilient sponge-like elastomeric material, having a relatively high porosity, as shown in FIGS. 3 and 4. Alternatively, as shown in FIG. 6, the traction member 40 may comprise a substantially solid, i.e., fine or no porosity, yet flexible material. In addition, the traction member 40 may be made of materials having different densities, thereby providing traction members 40 having different weights, which may be employed to counterbalance lenses of differing weights, so as to distribute the weight of the eyewear 10 more evenly about the head.

The length of the traction member 40 is preferably no greater than and most preferably substantially equal to the distance between the anterior and posterior shoulders 32, 34. Although the traction member 40 is illustrated as extending roughly one-third or one-half the overall length of the temple, the traction members 40 within the present invention can extend anywhere from substantially the entire length of the temple 20 to only a relatively small portion thereof, as depending upon the configuration of the seat 30. Alternatively, a plurality of traction members 40 may be axially aligned within the seat 30. The traction members 40 may be selected so that a combined length of the members 40 substantially equals the distance between the anterior and the posterior shoulders 32, 34 or alternatively, the combined axial length of the members 40 may be such that an axial space separates adjacent traction members 40 within the seat.

In assembling the present invention, the traction member 40 is engaged with a temple 20 by passing the distal end 24 of the temple 20 through the tubular passageway within traction member 40. Alternatively, the temple 20 may be detached from the frame 12 or lens 14 and the proximal end 22 may be passed through the tubular passageway of the traction member 40. Therefore, the preferred construction of the traction member 40 which elastically passes over the distal end may be obviated. The traction member 40 is then moved along the temple 20 until the inner surface 42 engages the seat 30. In an embodiment in which the seat 30 has a length substantially equal to the length of the traction member 40, as the traction member 40 is received within the seat 30, further unintended motion along the temple 20 is prevented by engagement of the anterior and posterior shoulders 32, 34 with the traction member 40.

Alternatively, the seat 30 may have a sufficient axial length so as to retain a plurality of traction members 40 between the anterior and posterior shoulders 32, 34. The use of multiple traction members 40 allows for accommodating fashion considerations as well as high retaining forces for active uses, such as volleyball or basketball. Upon engagement of the traction member 40 within the seat 30, the outer surface 44 of the traction member 40 may be disposed outside of the periphery of the temple 20, as shown in FIG. 1 or, alternatively, may be substantially flush with the periphery 38 of the adjacent temple 20, as shown in FIG. 5. Traction members are preferably provided having a variety of wall thicknesses, i.e., the difference between R1 and R2. Thus, the wearer can select a flush fitting traction member as illustrated in FIG. 5 or a radially enlarged traction member as illustrated in FIG. 1, depending upon that wearer's perception of the need for enhanced traction or sleek appearance.

As the majority of the length of the temple 20 in the preferred embodiment is dominated by the periphery of the temple 20 rather than the seat 30, if the traction members 40 are removed from the temples 20, the fitting of the eyewear 10 will not be substantially denigrated. However, the length of the traction member 40, when engaged in the seat 30, provides a sufficient contact area to increase the resistance to movement of the eyewear 10 relative to the head.

This present invention has been described in detail in connection with the preferred embodiments, but these are examples only and the present invention is not restricted thereto. It will be easily understood by those skilled in the art that other variations and modifications can be easily made within the scope of this invention, which is defined by the following claims.

It is claimed:

1. Improved eyewear, comprising:

at least one temple piece having a recessed seat along a length thereof such that the seat defines a periphery which is smaller than the periphery of the adjacent temple portion, said seat having an axial length of less than about one-half the axial length of the temple; and

at least one substantially tubular traction member disposed within the recessed seat having an inner surface, an outer surface, and a central passageway running axially therethrough, said inner surface removably engaging the periphery of the seat, and said outer surface adapted to provide a contact surface with the head of the wearer.

2. Improved eyewear, comprising:

a frame;

at least one temple having proximal and distal ends and being joined to the frame at the proximal end thereof, having a recessed seat interposed between said proximal and distal ends, said seat having a smaller cross-sectional area than the cross-sectional area of said temple portion adjacent said seat, and said seat having an axial length of less than about one-half of the axial length of the temple; and

a substantially tubular elastomeric traction member having an inner surface and an outer surface, such that the inner surface is adapted to circumferentially contact the temple, and the outer surface is adapted to engage the head of a wearer, wherein the traction member is disposed in the recessed seat region on the temple.

3. An improved eyewear temple for retaining eyeglasses on the head of the wearer and reducing abrasion caused by movement of said eyewear, comprising:

an elongate eyewear temple body;

a first end on the temple for attaching the temple to the frame of the eyeglasses;

a second end on the temple, distal said first end, for engaging the head of the wearer; and

a recessed seat interposed between said first and second ends having a smaller cross-sectional area than that of said temple portion adjacent said seat, said seat being separated from the remainder of said temple by first and second shoulders, such that the axial length of the recessed seat between the first and second shoulders is less than about one-half of the axial length of the temple, said recessed seat being situated toward the distal end of the temple such that at least one substantially tubular traction member removably disposed within the recessed seat can engage the head of the wearer.

4. An eyewear temple as in claim 3, wherein at least one substantially tubular traction member is disposed within the recessed seat between the first and second shoulders, said member having an inner surface, an outer surface, and a central passageway running axially therethrough, said inner surface removably engaging the periphery of the seat, and said outer surface adapted to provide a contact surface with the head of the wearer.

5. An eyewear temple as in claim 4, wherein the tubular traction member comprises a resilient elastomeric material.

6. An improved eyewear temple as in claim 5, wherein said elastomeric material exhibits a coefficient of sliding friction that increases when the material is wetted.

7. An eyewear temple as in claim 5, wherein the thickness of the traction member is such that the outer surface of the traction member is substantially flush with the periphery of the adjacent portion of the temple.

8. An eyewear temple as in claim 7, wherein the outer cross-sectional shape of the traction member approximates the outer cross-sectional shape of the adjacent portion of the temple.

9. An eyewear temple as in claim 5, wherein the traction member extends radially outward beyond the surface of the adjacent portion of the temple.

10. An eyewear temple as in claim 5, wherein at least one tubular traction member disposed within the recessed seat extends substantially the entire distance between said first and second shoulders of the temple.

11. An eyewear temple as in claim 5, wherein the traction member is removable and comprises a hollow, elastomeric member adapted to allow elastic radial expansion for sliding over the distal end of said temples and into engagement with said recessed seat.

12. An eyewear temple as in claim 3, wherein the shoulders extend substantially perpendicularly from the seat.

13. An eyewear temple as in claim 3, wherein the recessed seat consists of a tapering that extends axially and radially from the distal end of the recessed seat to the proximal end, wherein the cross-sectional area of the seat tapers from the smaller periphery at the distal end to being substantially coincident with the cross-sectional area of the temple at the proximal end of the recessed seat.

14. An eyewear temple as in claim 3, wherein the axial length of the recessed seat extends no more than about one-third the length of the temple.

15. An eyewear temple as in claim 3 further comprising an attachment means on the first end thereof for pivotably removably attaching the temple to an eyeglass frame.

16. An improved eyewear temple for retaining eyeglasses on the head of the wearer and reducing abrasion caused by movement of said eyewear, comprising:

an elongate eyewear temple body, wherein the body is substantially linear through the axial length of the temple;

a first end on the temple for attaching the temple to the frame of the eyeglasses;

a second end on the temple, distal said first end, for engaging the head of the wearer;

a recessed seat interposed between said first and second ends having a smaller cross-sectional area than that of said temple portion adjacent said seat, said seat being separated from the remainder of said temple by first and second shoulders; and

at least one tubular traction member disposed within the recessed seat.

17. An eyewear temple as in claim 16, wherein at least one substantially tubular traction member is disposed within the recessed seat between the first and second shoulders, said member having in inner surface, an outer surface, and a central passageway running axially therethrough, said inner surface removably engaging the periphery of the seat, and said outer surface adapted to provide a contact surface with the head of the wearer.

18. An eyewear temple as in claim 17, wherein the tubular traction member comprises a resilient elastomeric material.

19. An improved eyewear temple as in claim 18, wherein said elastomeric material exhibits a coefficient of sliding friction that increases when the material is wetted.

20. An eyewear temple as in claim 18, wherein the thickness of the traction member is such that the outer surface of the traction member is substantially flush with the periphery of the adjacent portion of the temple.

21. An eyewear temple as in claim 20, wherein the outer cross-sectional shape of the traction member approximates the outer cross-sectional shape of the adjacent portion of the temple.

22. An eyewear temple as in claim 18, wherein the traction member extends radially outward beyond the surface of the adjacent portion of the temple.

23. An eyewear temple as in claim 16, wherein the shoulders extend substantially perpendicularly from the seat.

24. An eyewear temple as in claim 16, wherein the recessed seat consists of a tapering that extends axially and radially from the distal end of the recessed seat to the proximal end, wherein the cross-sectional area of the seat tapers from the smaller periphery at the distal end to being substantially coincident with the cross-sectional area of the temple at the proximal end of the recessed seat.

25. An eyewear temple as in claim 16, wherein the axial length of the recessed seat extends no more than about one-third the length of the temple.

26. An eyewear temple as in claim 16, wherein the axial length of the recessed seat extends no more than about one-half the length of the temple.

27. An eyewear temple as in claim 16, wherein at least one tubular traction member disposed within the recessed seat extends substantially the entire distance between said first and second shoulders of the temple.

28. An eyewear temple as in claim 16, wherein the traction member is removable and comprises a hollow, elastomeric member adapted to allow elastic radial expansion for sliding over the distal end of said temples and into engagement with said recessed seat.

29. An eyewear temple as in claim 16, further comprising an attachment means on the first end thereof for pivotably removably attaching the temple to an eyeglass frame.

30. Improved eyewear, comprising:

at least one temple piece being substantially linear throughout the axial length of the temple and having a recessed seat along a length thereof such that the seat defines a periphery which is smaller than the periphery of the adjacent temple portion; and at least one substantially tubular traction member disposed within the recessed seat having an inner surface, an outer surface, and a central passageway running axially therethrough said inner surface removably engaging the periphery of the seat, and said outer surface adapted to provide a contact surface with the head of the wearer.

31. Improved eyewear, comprising:

a frame;

at least one temple having proximal and distal ends and being joined to the frame at the proximal end thereof, said temple being substantially linear throughout the axial length of the temple, said temple having a recessed seat interposed between said proximal and distal ends, said seat having a smaller cross-sectional area than that of said temple portion adjacent said seat; and

a substantially tubular elastomeric traction member having an inner surface and an outer surface, such that the inner surface is adapted to circumferentially contact the temple, and the outer surface is adapted to engage the head of a wearer, wherein the traction member is disposed in the recessed seat region on the temple.

32. Improved eyewear having a lens, a frame supporting said lens for positioning the lens before the eyes of a wearer, and first and second temples for securing said eyewear to the head of the wearer, said temples having a proximal end joined to said frame and a distal end spaced from said proximal end, the improvement comprising:

said first and second temples being substantially linear throughout the axial length of the temple member, said temples having disposed between said proximal and distal ends a radially recessed seat having a smaller cross-sectional area than that of said temple portion adjacent said seat; and

at least one traction member releasably secured on said first and second temples within the seat, whereby said traction member frictionally engages the wearer's head.



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United States Patent [19]**Jannard**[11] **Patent Number: Des. 333,145**[45] **Date of Patent: ** Feb. 9, 1993**[54] **UNITARY EYEGLASS LENS**[75] **Inventor: James H. Jannard, San Juan Capistrano, Calif.**[73] **Assignee: Oakley, Inc., Irvine, Calif.**[*] **Notice: The portion of the term of this patent subsequent to Aug. 4, 2006 has been disclaimed.**[**] **Term: 14 Years**[21] **Appl. No.: 545,962**[22] **Filed: Jun. 28, 1990**[52] **U.S. Cl. D16/101**[58] **Field of Search D16/102, 111, 112, 116, D16/117, 127, 101; 351/41, 44, 49, 111, 112, 114**[56] **References Cited****U.S. PATENT DOCUMENTS**

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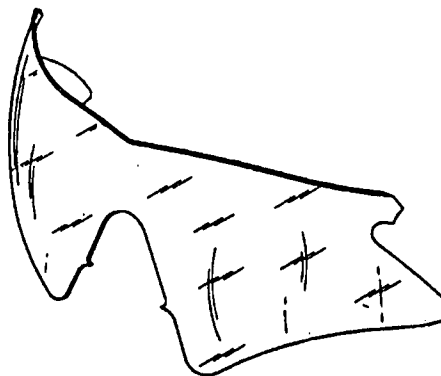
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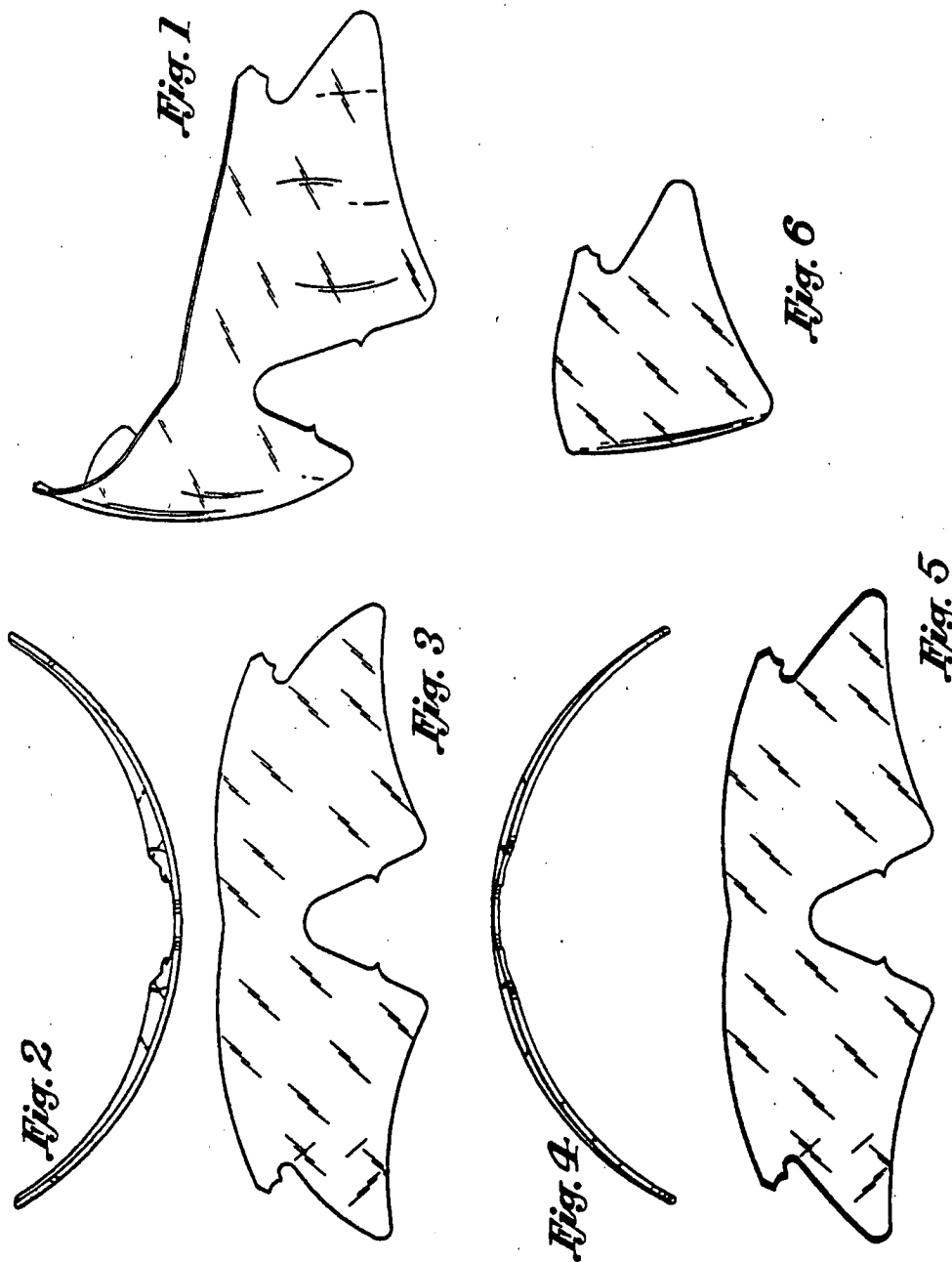
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CLAIM

DESCRIPTION

The ornamental design for a unitary eyeglass lens, as shown and described.

FIG. 1 is a frontal perspective view of a unitary eyeglass lens showing my new design;
FIG. 2 is a top plan view thereof;
FIG. 3 is a front elevational view thereof;
FIG. 4 is a bottom plan view thereof;
FIG. 5 is a rear elevational view thereof; and,
FIG. 6 is a right side elevational view thereof, the left side elevational view being a mirror image.





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United States Patent [19]

Yee

[11] Patent Number: Des. 384,364

[45] Date of Patent: **Sep. 30, 1997

[54] EYEGGLASS FRAME FRONT

[75] Inventor: Peter Yee, Irvine, Calif.

[73] Assignee: Oakley, Inc., Irvine, Calif.

[**] Term: 14 Years

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[51] LOC (6) Cl. 16-06

[52] U.S. Cl. D16/330; D16/314

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D16/306, 309, 311-317, 319, 325-330,
335; 351/41, 44, 51-52, 103, 105, 106,
109, 111, 118, 119, 124; 2/447, 448

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Advertisement for various sunglasses which appeared in *Surfing* magazine (Aug. 1993).

Primary Examiner—Raphael Barkai
Attorney, Agent, or Firm—Knobbe, Martens, Olson & Bear L.L.P.

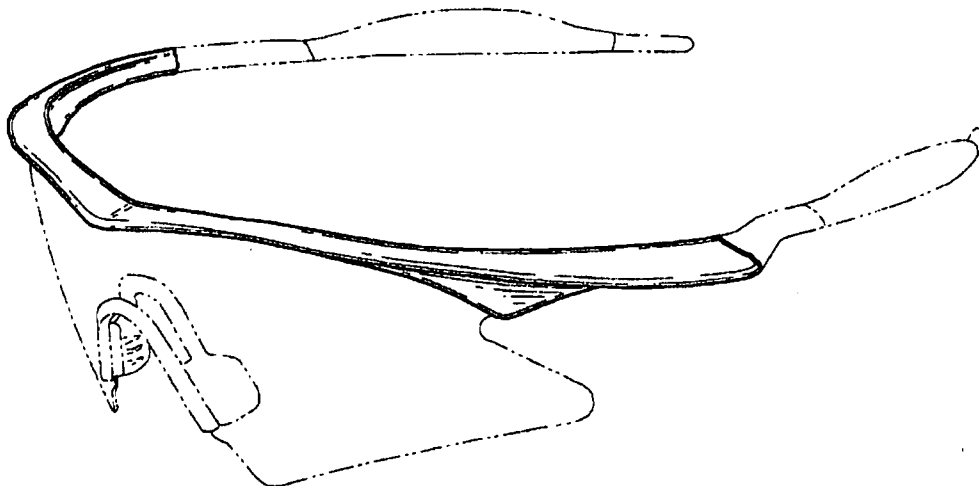
[57] CLAIM

The ornamental design for eyeglass frame front, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the eyeglass frame front of the present invention, the broken line showing of the earstems, nose piece and lens is for illustrative purposes only and forms no part of the claimed design;
FIG. 2 is a front elevational view thereof;
FIG. 3 is a rear elevational view thereof;
FIG. 4 is a right-side elevational view thereof, the left side elevational view being a mirror image thereof;
FIG. 5 is a top plan view thereof; and,
FIG. 6 is a bottom plan view thereof.

1 Claim, 3 Drawing Sheets



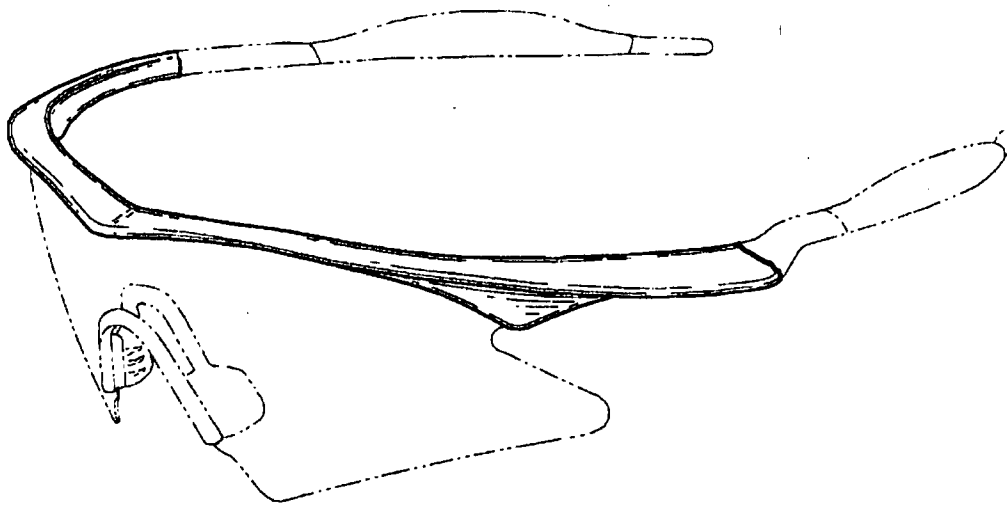


Fig. 1

Fig. 2



Fig. 3



Fig. 4



Fig. 5

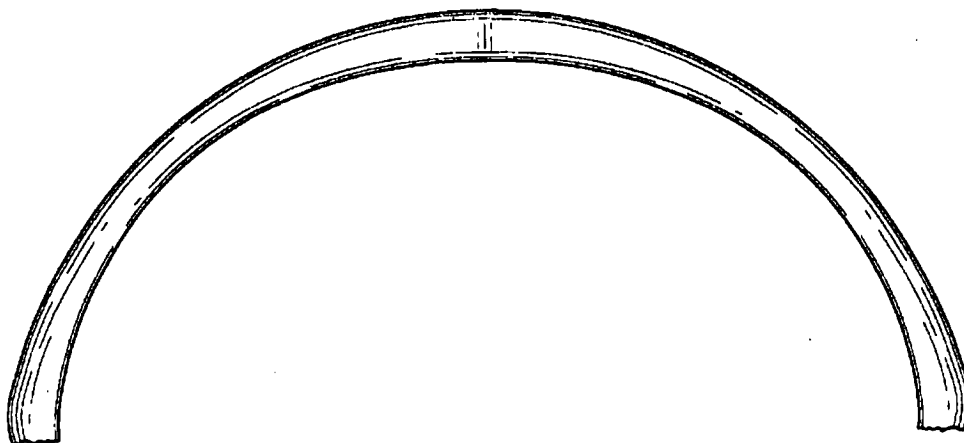
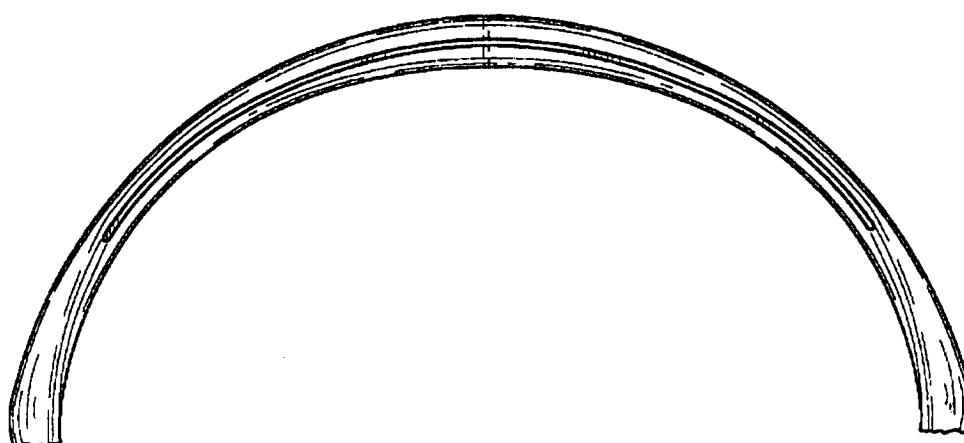


Fig. 6





US00D399866S

United States Patent [19]

Yee

[11] **Patent Number:** Des. 399,866[45] **Date of Patent:** **Oct. 20, 1998[54] **EYEGLASS COMPONENT**[75] **Inventor:** Peter Yee, Irvine, Calif.[73] **Assignee:** Oakley, Inc., Foothill Ranch, Calif.[**] **Term:** 14 Years[21] **Appl. No.:** 75,379[22] **Filed:** Aug. 12, 1997**Related U.S. Application Data**

[62] Division of Ser. No. 55,504, Jun. 6, 1996, Pat. No. Des. 384,364.

[51] **LOC (6) Cl.** 16-06[52] **U.S. Cl.** D16/330[58] **Field of Search** D16/100, 300,
D16/306, 304, 309, 311-317, 319, 325-330,
335; 351/41, 44, 51-52, 103, 105, 106,
109, 111, 118, 119, 124; 2/447, 448[56] **References Cited****U.S. PATENT DOCUMENTS**

D. 145,288	7/1946	Di Cicco .	
D. 202,130	8/1965	Mitchell	D16/326
D. 204,417	4/1966	Shindler	D16/326
D. 322,975	1/1992	Bolle .	
D. 323,333	1/1992	Jannard et al.	D16/314
D. 323,665	2/1992	Simioni	D16/314
D. 324,394	3/1992	Jannard .	
D. 324,528	3/1992	Jannard .	
D. 325,040	3/1992	Jannard .	
D. 328,468	8/1992	Jannard .	
D. 329,445	9/1992	Jannard .	
D. 330,035	10/1992	Jannard .	
D. 330,716	11/1992	Jannard .	
D. 330,903	11/1992	Jannard .	
D. 331,587	12/1992	Jannard et al. .	
D. 331,763	12/1992	Jannard .	
D. 333,145	2/1993	Jannard .	
D. 334,389	3/1993	Bolle	D16/314
D. 335,887	5/1993	Jannard .	
D. 344,742	3/1994	Jannard	D16/314
D. 354,501	1/1995	Jannard	D16/314
D. 369,375	4/1996	Jannard et al. .	

D. 371,383	7/1996	Goldman	D16/327
2,388,687	11/1945	Hammon .	
3,531,189	9/1970	Petito .	
3,689,136	9/1972	Atamian .	
4,730,915	3/1988	Jannard	351/44
5,208,614	5/1993	Jannard .	
5,249,001	9/1993	Jannard .	
5,412,438	5/1995	Bolle	351/44

OTHER PUBLICATIONS

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"For Your Eyes Only . . ." Advertisement, *Runner's World*, p. 46, Jul. 1990.

Oakley Frogskins, Blades and Mumbos Product Brochure, 1990.

Various Sunglasses, Advertisement, *Surfing Magazine*, Aug. 1993.

Primary Examiner—Raphael Barkai

Attorney, Agent, or Firm—Knobbe, Martens, Olson & Bear, LLP

[57] **CLAIM**

The ornamental design for eyeglass component, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the eyeglass component of the present invention;

FIG. 2 is a front elevational view of the eyeglass component of FIG. 1;

FIG. 3 is a rear elevational view of the eyeglass component of FIG. 1;

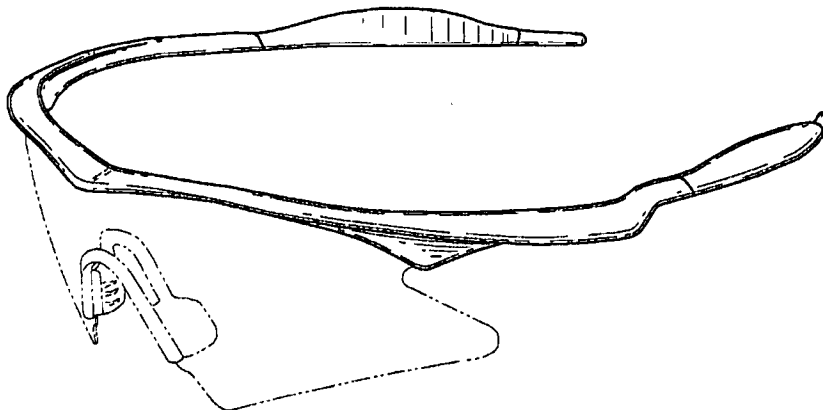
FIG. 4 is a right-side elevational view of the eyeglass component of FIG. 1, the left-side elevational view being a mirror image thereof;

FIG. 5 is a top plan view of the eyeglass component of FIG. 1; and,

FIG. 6 is a bottom plan view of the eyeglass component of FIG. 1.

The broken lines shown in FIG. 1 are for illustrative purposes only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets



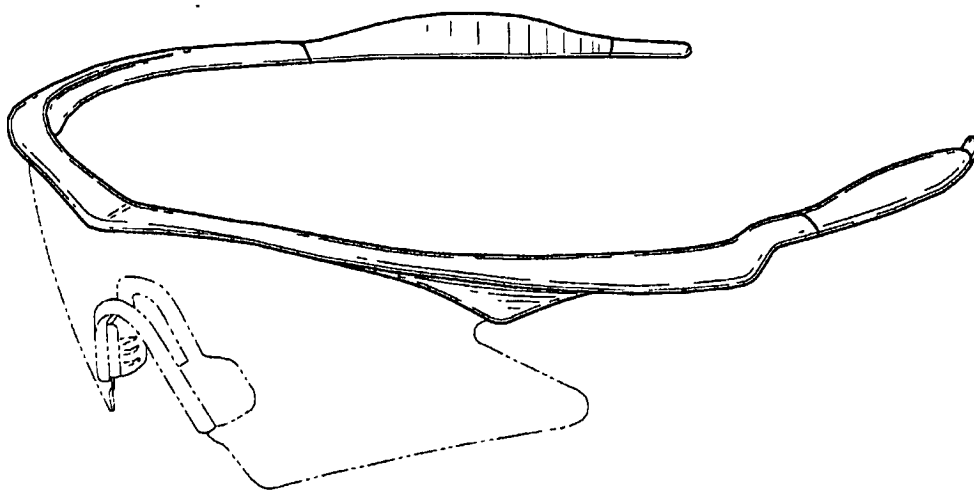


FIG. 1

FIG. 2



FIG. 3



FIG. 4



FIG. 5

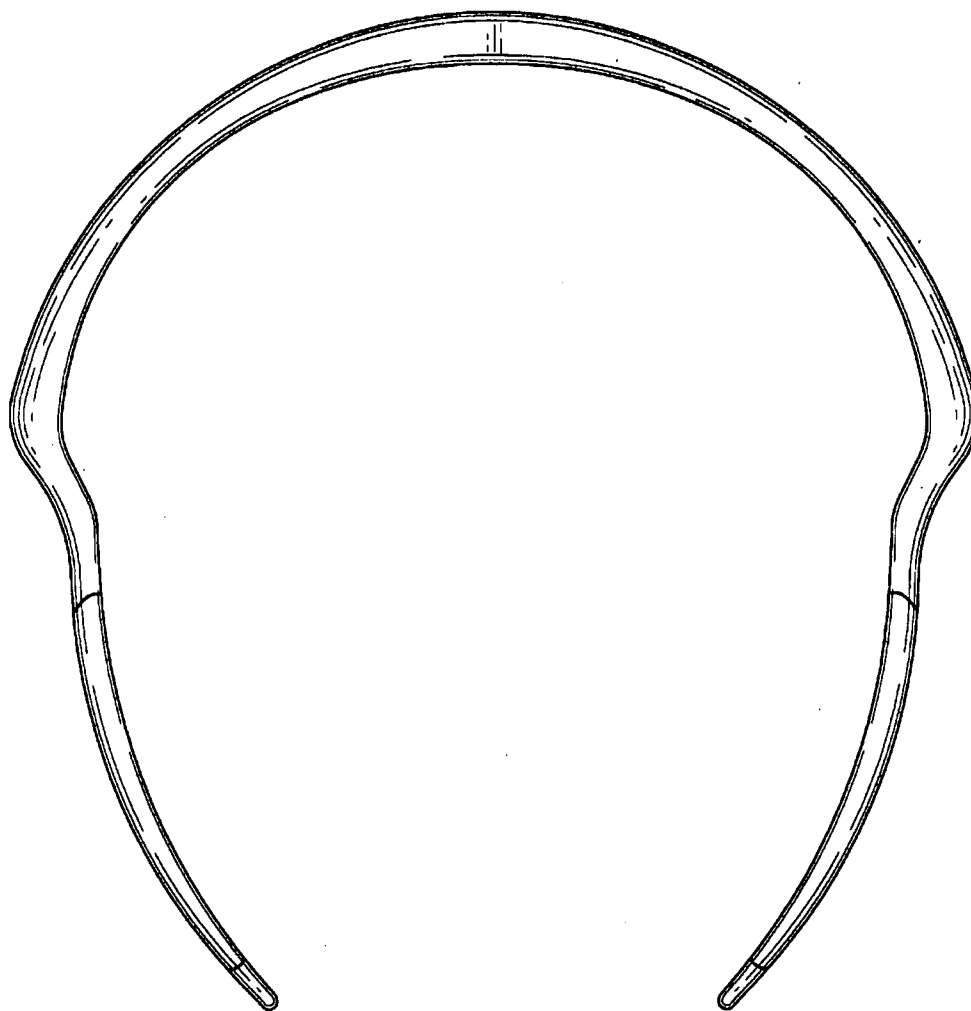
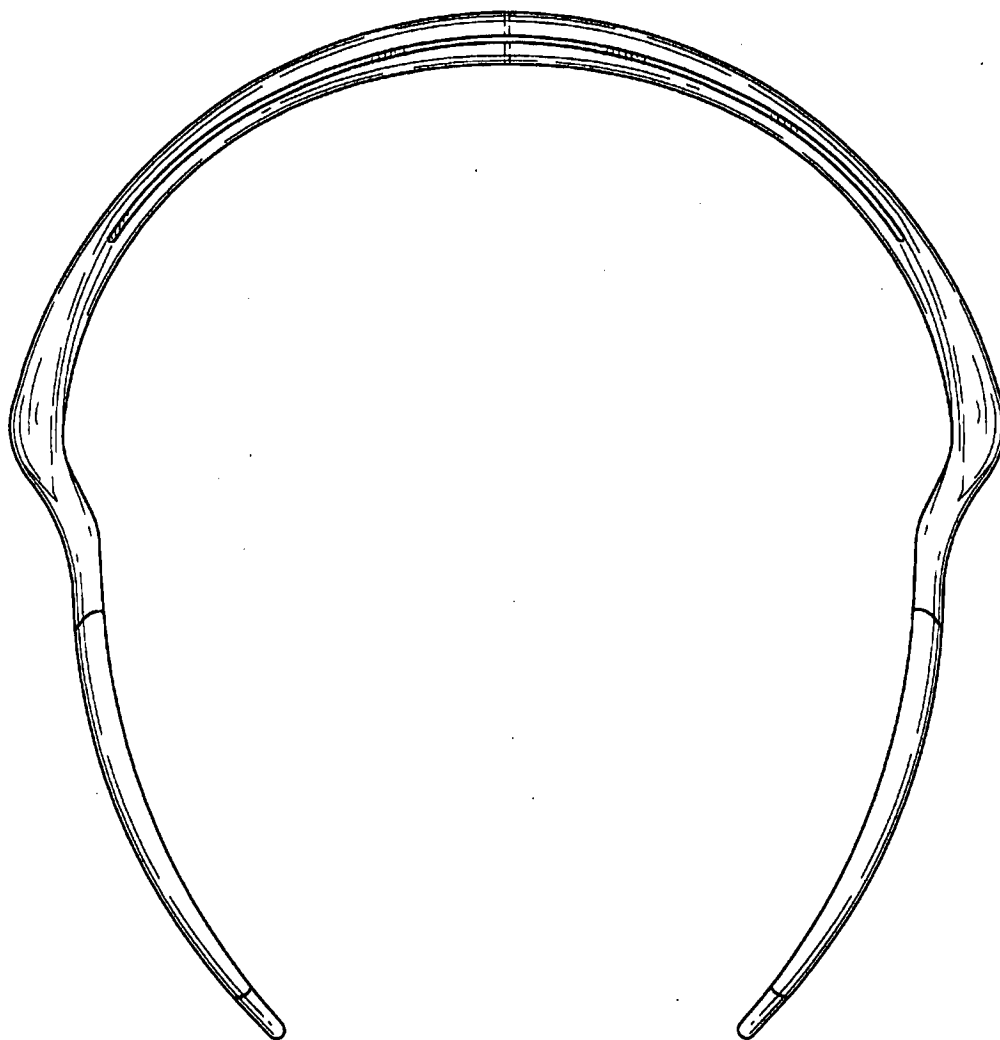


FIG. 6





US00D399519S

United States Patent [19]

Yee

[11] **Patent Number:** **Des. 399,519**[45] **Date of Patent:** ****Oct. 13, 1998**[54] **EYEGLASSES**[75] **Inventor:** **Peter Yee, Irvine, Calif.**[73] **Assignee:** **Oakley, Inc., Foothill Ranch, Calif.**[**] **Term:** **14 Years**[21] **Appl. No.:** **75,055**[22] **Filed:** **Aug. 12, 1997****Related U.S. Application Data**

[62] Division of Ser. No. 55,504, Jun. 6, 1996, Pat. No. Des. 384,364.

[51] **LOC (6) Cl.** **16-06**[52] **U.S. Cl.** **D16/314**[58] **Field of Search** **D16/300, 304, D16/306, 309, 311-317, 319, 325-330, 335; 351/41, 44, 51-52, 103, 105-106, 109, 111, 118-119, 124, 158; 2/447, 448**[56] **References Cited****U.S. PATENT DOCUMENTS**

D. 145,288 7/1946 Di Cicco .
 D. 202,130 8/1965 Mitchell .
 D. 204,417 4/1966 Shindler .
 D. 322,975 1/1992 Bolle .
 D. 323,333 1/1992 Jannard et al. .
 D. 323,665 2/1992 Simioni .
 D. 324,394 3/1992 Jannard .
 D. 324,528 3/1992 Jannard .
 D. 325,040 3/1992 Jannard .
 D. 328,468 8/1992 Jannard .
 D. 329,445 9/1992 Jannard .
 D. 330,035 10/1992 Jannard .
 D. 330,715 11/1992 Jannard .
 D. 330,903 11/1992 Jannard .
 D. 331,587 12/1992 Jannard et al. .
 D. 331,763 12/1992 Jannard .
 D. 333,145 2/1993 Jannard .
 D. 334,389 3/1993 Bolle .

D. 335,887 5/1993 Jannard .
 D. 344,742 3/1994 Jannard .
 D. 354,501 1/1995 Jannard .
 D. 369,375 4/1996 Jannard et al. .
 D. 371,383 7/1996 Goldman .
 2,388,687 11/1945 Hammon .
 3,531,189 9/1970 Petito .
 3,689,136 9/1972 Atamian .
 4,730,915 3/1988 Jannard .
 5,208,614 5/1993 Jannard .
 5,249,001 9/1993 Jannard .
 5,412,438 5/1995 Bolle .

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Various Sunglasses, Advertisement, *Surfing Magazine*, Aug. 1993.

Primary Examiner—Raphael Barkai

Attorney, Agent, or Firm—Knobbe, Martens, Olson & Bear, LLP

[57] **CLAIM**

The ornamental design for eyeglasses, as shown and described.

DESCRIPTION

FIG. 1 is a front perspective view of the eyeglasses of the present invention;

FIG. 2 is a front elevational view thereof;

FIG. 3 is a rear elevational view thereof;

FIG. 4 is a right-side elevational view thereof, the left side elevational view being a mirror image thereof;

FIG. 5 is a top plan view thereof; and,

FIG. 6 is a bottom plan view thereof.

1 Claim, 4 Drawing Sheets

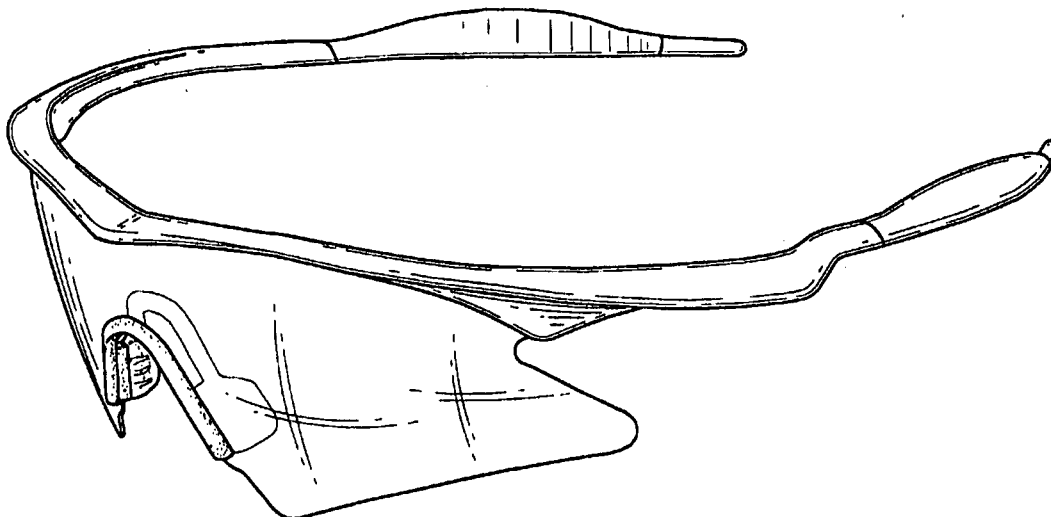


EXHIBIT 12 PAGE 1 OF 5

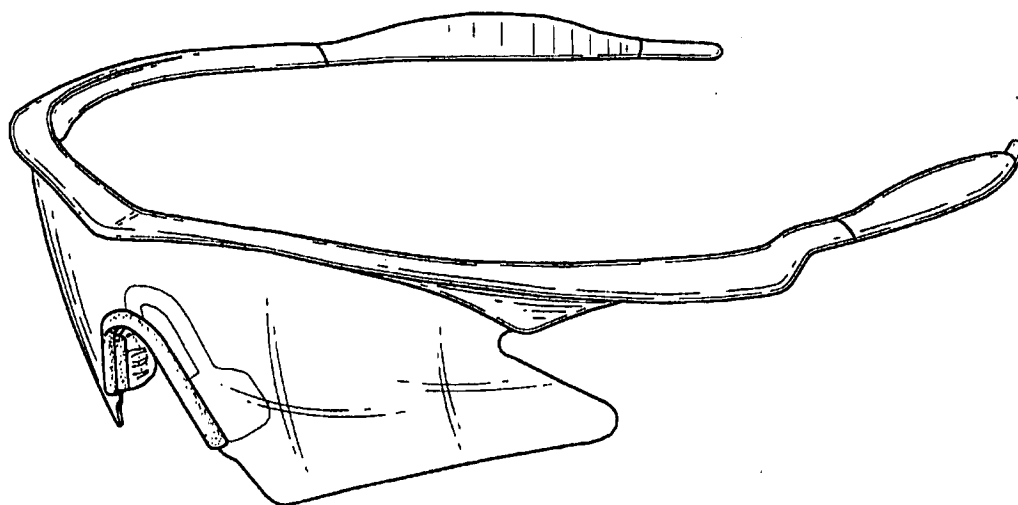


Fig. 1

Fig. 2

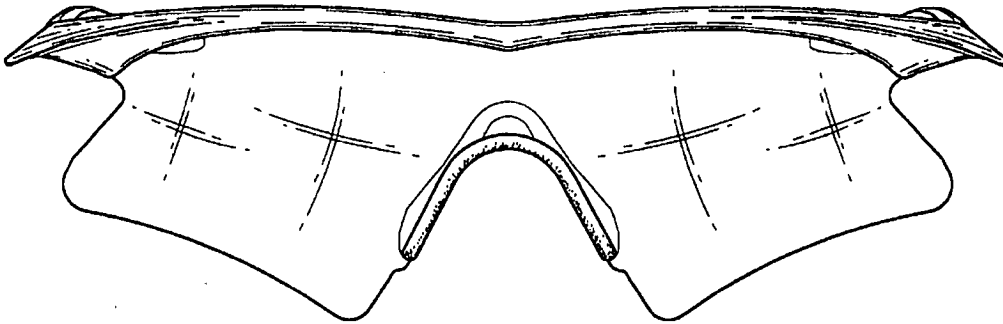


Fig. 3

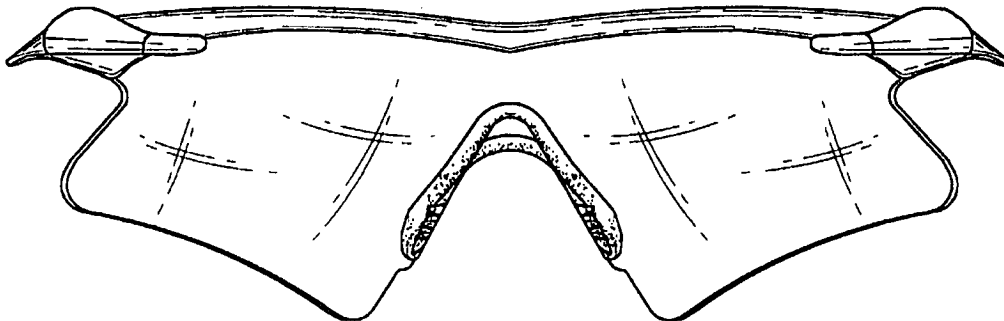


Fig. 4

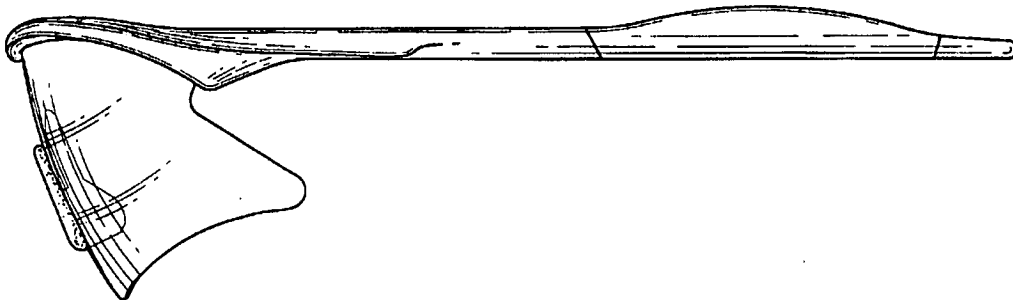


Fig. 5

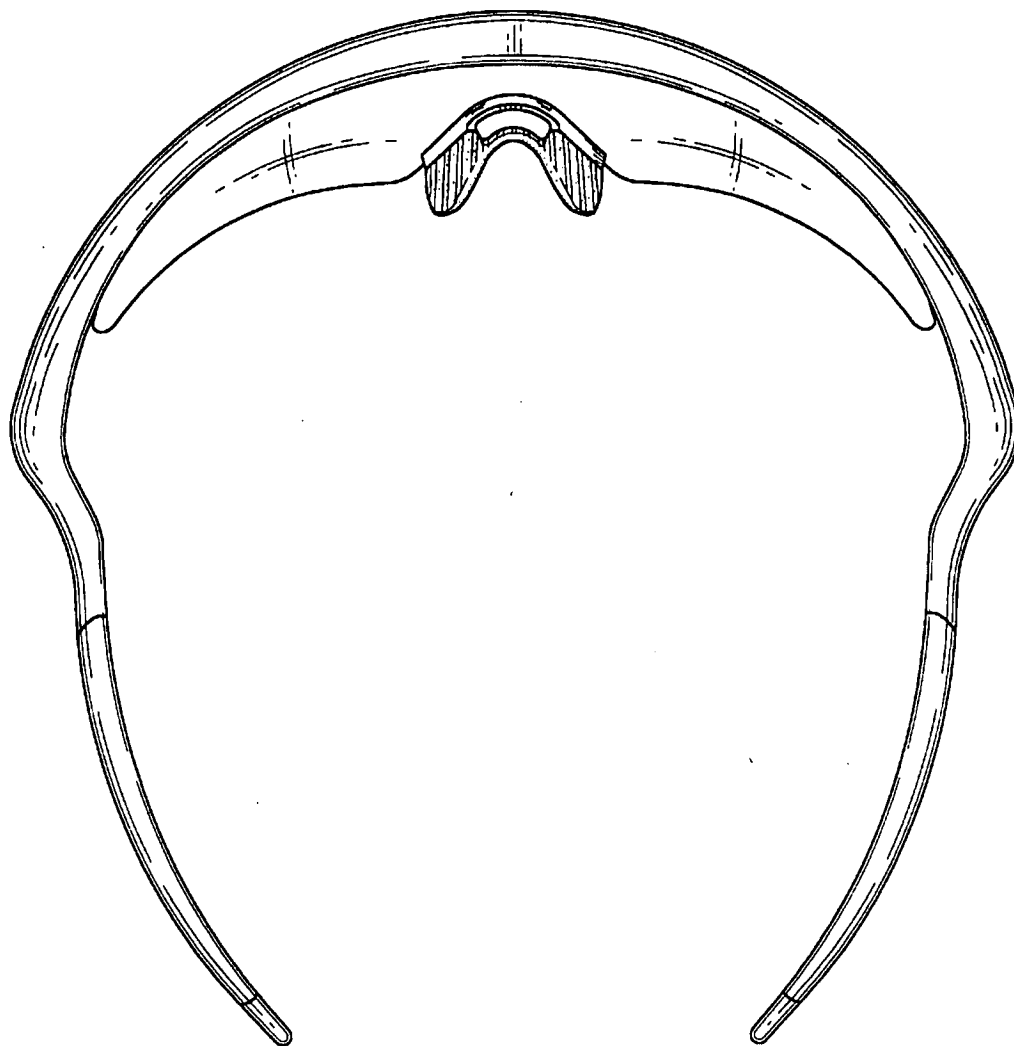
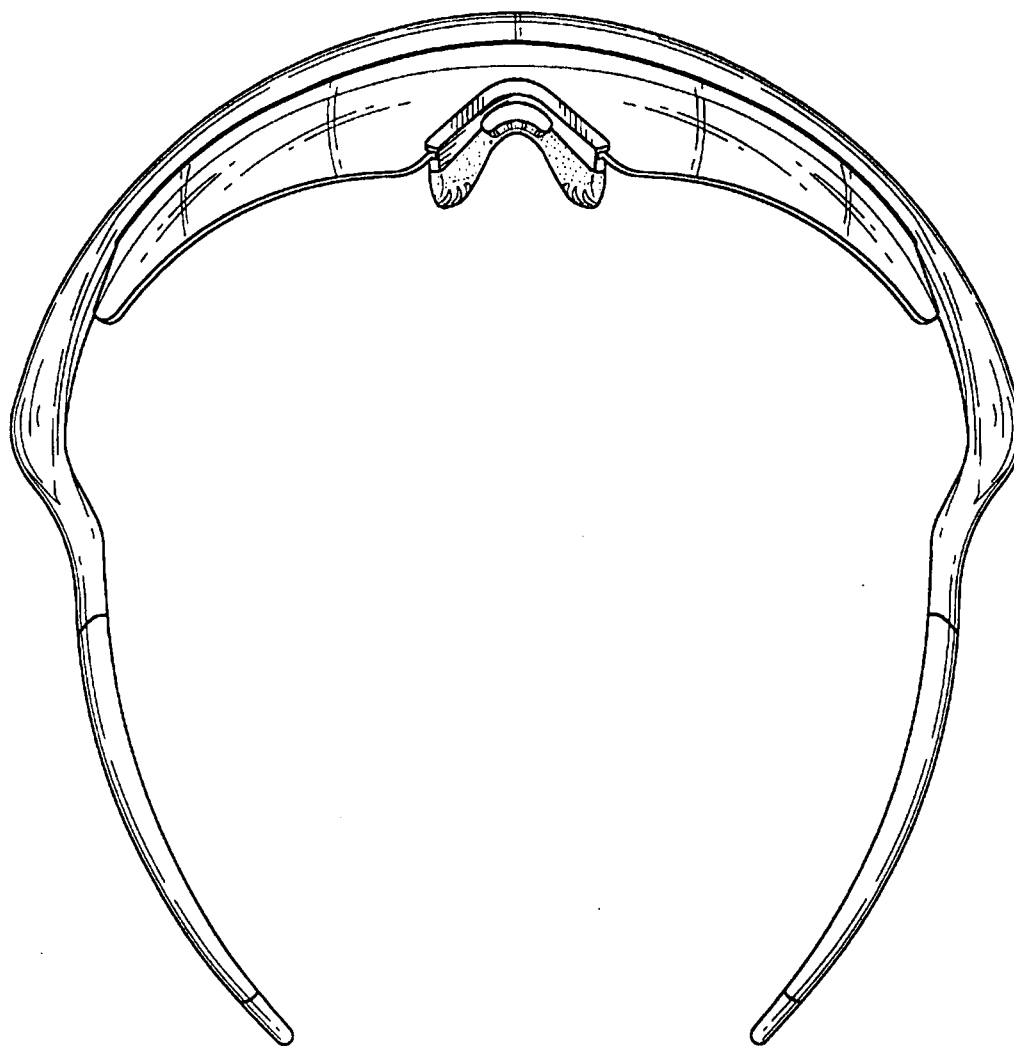


Fig. 6



CIVIL COVER SHEET

The JS 44 civil cover sheet and the information contained herein neither replace nor supplement the filing and service of pleadings or other papers as required by law, except as provided by local rules of court. This form, approved by the Judicial Conference of the United States in September 1974, is required for the use of the Clerk of Court for the purpose of initiating the civil docket sheet. (SEE INSTRUCTIONS ON THE REVERSE OF THE FORM.)

I. (a) PLAINTIFFS

OAKLEY, INC., a Washington corporation

(b) County of Residence of First Listed Plaintiff Orange County
(EXCEPT IN U.S. PLAINTIFF CASES)

(c) Attorney's (Firm Name, Address, and Telephone Number)

Weeks, Kaufman, Nelson & Johnson
462 Stevens Avenue, Ste. 310, Solana Beach, CA 92075

DEFENDANTS

PEPPER'S PERFORMANCE EYEWEAR, INC. dba CHILI'S EYEWEAR, a Pennsylvania corporation

County of Residence of First Listed Defendant Allegheny, PA
(IN U.S. PLAINTIFF CASES ONLY)

NOTE: IN LAND CONDEMNATION CASES, USE THE LOCATION OF THE LAND INVOLVED.

Attorneys (If Known)

09 CV 2615 W

CAB

II. BASIS OF JURISDICTION (Place an "X" in One Box Only)

- ☐ 1 U.S. Government Plaintiff
☐ 2 U.S. Government Defendant
☒ 3 Federal Question (U.S. Government Not a Party)
☐ 4 Diversity (Indicate Citizenship of Parties in Item III)

III. CITIZENSHIP OF PRINCIPAL PARTIES (Place an "X" in One Box for Plaintiff and One Box for Defendant)

- (For Diversity Cases Only)
- | | | | | | |
|---|----------------------------|----------------------------|---|----------------------------|----------------------------|
| Citizen of This State | <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | Incorporated or Principal Place of Business In This State | <input type="checkbox"/> 4 | <input type="checkbox"/> 4 |
| Citizen of Another State | <input type="checkbox"/> 2 | <input type="checkbox"/> 2 | Incorporated and Principal Place of Business In Another State | <input type="checkbox"/> 5 | <input type="checkbox"/> 5 |
| Citizen or Subject of a Foreign Country | <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | Foreign Nation | <input type="checkbox"/> 6 | <input type="checkbox"/> 6 |

IV. NATURE OF SUIT (Place an "X" in One Box Only)

CONTRACT	TORTS	FORFEITURE/PENALTY	BANKRUPTCY	OTHER STATUTES
<input type="checkbox"/> 110 Insurance <input type="checkbox"/> 120 Marine <input type="checkbox"/> 130 Miller Act <input type="checkbox"/> 140 Negotiable Instrument <input type="checkbox"/> 150 Recovery of Overpayment & Enforcement of Judgment <input type="checkbox"/> 151 Medicare Act <input type="checkbox"/> 152 Recovery of Defaulted Student Loans (Excl. Veterans) <input type="checkbox"/> 153 Recovery of Overpayment of Veteran's Benefits <input type="checkbox"/> 160 Stockholders' Suits <input type="checkbox"/> 190 Other Contract <input type="checkbox"/> 195 Contract Product Liability <input type="checkbox"/> 196 Franchise	PERSONAL INJURY <input type="checkbox"/> 310 Airplane <input type="checkbox"/> 315 Airplane Product Liability <input type="checkbox"/> 320 Assault, Libel & Slander <input type="checkbox"/> 330 Federal Employers' Liability <input type="checkbox"/> 340 Marine <input type="checkbox"/> 345 Marine Product Liability <input type="checkbox"/> 350 Motor Vehicle <input type="checkbox"/> 355 Motor Vehicle Product Liability <input type="checkbox"/> 360 Other Personal Injury PERSONAL INJURY <input type="checkbox"/> 362 Personal Injury - Med. Malpractice <input type="checkbox"/> 365 Personal Injury - Product Liability <input type="checkbox"/> 368 Asbestos Personal Injury Product Liability PERSONAL PROPERTY <input type="checkbox"/> 370 Other Fraud <input type="checkbox"/> 371 Truth in Lending <input type="checkbox"/> 380 Other Personal Property Damage <input type="checkbox"/> 385 Property Damage Product Liability	<input type="checkbox"/> 610 Agriculture <input type="checkbox"/> 620 Other Food & Drug <input type="checkbox"/> 625 Drug Related Seizure of Property 21 USC 881 <input type="checkbox"/> 630 Liquor Laws <input type="checkbox"/> 640 R.R. & Truck <input type="checkbox"/> 650 Airline Regs. <input type="checkbox"/> 660 Occupational Safety/Health <input type="checkbox"/> 690 Other LABOR <input type="checkbox"/> 710 Fair Labor Standards Act <input type="checkbox"/> 720 Labor/Mgmt. Relations <input type="checkbox"/> 730 Labor/Mgmt. Reporting & Disclosure Act <input type="checkbox"/> 740 Railway Labor Act <input type="checkbox"/> 790 Other Labor Litigation <input type="checkbox"/> 791 Empl. Ret. Inc. Security Act IMMIGRATION <input type="checkbox"/> 462 Naturalization Application <input type="checkbox"/> 463 Habeas Corpus - Alien Detainee <input type="checkbox"/> 465 Other Immigration Actions	<input type="checkbox"/> 422 Appeal 28 USC 158 <input type="checkbox"/> 423 Withdrawal 28 USC 157 PROPERTY RIGHTS <input type="checkbox"/> 820 Copyrights <input checked="" type="checkbox"/> 830 Patent <input type="checkbox"/> 840 Trademark SOCIAL SECURITY <input type="checkbox"/> 861 HIA (1395f) <input type="checkbox"/> 862 Black Lung (923) <input type="checkbox"/> 863 DIWC/DIWW (405(g)) <input type="checkbox"/> 864 SSID Title XVI <input type="checkbox"/> 865 RSI (405(g)) FEDERAL TAX SUITS <input type="checkbox"/> 870 Taxes (U.S. Plaintiff or Defendant) <input type="checkbox"/> 871 IRS—Third Party 26 USC 7609	<input type="checkbox"/> 400 State Reapportionment <input type="checkbox"/> 410 Antitrust <input type="checkbox"/> 430 Banks and Banking <input type="checkbox"/> 450 Commerce <input type="checkbox"/> 460 Deportation <input type="checkbox"/> 470 Racketeer Influenced and Corrupt Organizations <input type="checkbox"/> 480 Consumer Credit <input type="checkbox"/> 490 Cable/Sat TV <input type="checkbox"/> 810 Selective Service <input type="checkbox"/> 850 Securities/Commodities/Exchange <input type="checkbox"/> 875 Customer Challenge 12 USC 3410 <input type="checkbox"/> 890 Other Statutory Actions <input type="checkbox"/> 891 Agricultural Acts <input type="checkbox"/> 892 Economic Stabilization Act <input type="checkbox"/> 893 Environmental Matters <input type="checkbox"/> 894 Energy Allocation Act <input type="checkbox"/> 895 Freedom of Information Act <input type="checkbox"/> 900 Appeal of Fee Determination Under Equal Access to Justice <input type="checkbox"/> 950 Constitutionality of State Statutes
REAL PROPERTY <input type="checkbox"/> 210 Land Condemnation <input type="checkbox"/> 220 Foreclosure <input type="checkbox"/> 230 Rent Lease & Ejectment <input type="checkbox"/> 240 Torts to Land <input type="checkbox"/> 245 Tort Product Liability <input type="checkbox"/> 290 All Other Real Property	CIVIL RIGHTS <input type="checkbox"/> 441 Voting <input type="checkbox"/> 442 Employment <input type="checkbox"/> 443 Housing/Accommodations <input type="checkbox"/> 444 Welfare <input type="checkbox"/> 445 Amer. w/Disabilities - Employment <input type="checkbox"/> 446 Amer. w/Disabilities - Other <input type="checkbox"/> 440 Other Civil Rights	PRISONER PETITIONS <input type="checkbox"/> 510 Motions to Vacate Sentence Habeas Corpus: <input type="checkbox"/> 530 General <input type="checkbox"/> 535 Death Penalty <input type="checkbox"/> 540 Mandamus & Other <input type="checkbox"/> 550 Civil Rights <input type="checkbox"/> 555 Prison Condition		

V. ORIGIN

(Place an "X" in One Box Only)

- ☒ 1 Original Proceeding
☐ 2 Removed from State Court
☐ 3 Remanded from Appellate Court
☐ 4 Reinstated or Reopened
☐ 5 Transferred from another district (specify)
☐ 6 Multidistrict Litigation
☐ 7 Appeal to District Judge from Magistrate Judgment

VI. CAUSE OF ACTION

Cite the U.S. Civil Statute under which you are filing (Do not cite jurisdictional statutes unless diversity):
35 U.S.C. section 271 and 281

Brief description of cause:
This is a case of patent infringement

VII. REQUESTED IN COMPLAINT:

☐ CHECK IF THIS IS A CLASS ACTION UNDER F.R.C.P. 23

DEMAND \$

CHECK YES only if demanded in complaint:

JURY DEMAND: ☒ Yes ☐ No

VIII. RELATED CASE(S) IF ANY

(See instructions): See attached Notice of Related Cases

JUDGE

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SIGNATURE OF ATTORNEY OF RECORD

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AMOUNT

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APPLYING IFP

JUDGE

MAG. JUDGE

11/19/09

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Transaction Date: 11/19/2009
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For: OAKLEY V. PEPPERS PERFORMANCE
Case/Party: D-CAS-3-09-CV-002615-001
Amount: \$350.00

CHECK
Check/Money Order Num: 2365
Amt Tendered: \$350.00

Total Due: \$350.00
Total Tendered: \$350.00
Change Amt: \$0.00

There will be a fee of \$45.00
charged for any returned check.