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**United States Patent** [19]  
**Grannis et al.**

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[54] **FULL FACE RESPIRATOR LENS**

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[73] Assignee: **Minnesota Mining and Manufacturing Company**, St. Paul, Minn.

[\*\*] Term: **14 Years**

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**Related U.S. Application Data**

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[51] **LOC (6) Cl.** ..... **29-02**

[52] **U.S. Cl.** ..... **D24/110.4; D24/110.1**

[58] **Field of Search** ..... **D24/110, 110.1-110.6; 128/201.28, 202.13, 203.29, 205.24, 205.25, 206.12, 206.24, 200.24, 206.15, 206.13, 206.21, 206.28, 207.11, 207.12, 207.16, 207.18, 203.12, 204.18**

[56] **References Cited**

**U.S. PATENT DOCUMENTS**

- D. 213,077 12/1968 Holloway ..... D24/110.2
- D. 240,086 5/1976 Riblett et al. .... D24/110.4
- D. 249,368 9/1978 Watkins, Jr. .... D24/110.2
- D. 285,496 9/1986 Berman ..... D24/110.4
- D. 331,988 12/1992 Markert ..... D24/110.2
- D. 336,546 6/1993 Lybrand ..... D29/7
- D. 351,226 10/1994 Parvatharaj ..... D24/110
- D. 378,610 3/1997 Reischel et al. .... D24/110.2
- D. 388,872 1/1998 Grannis et al. .... D24/110.4
- 3,545,436 12/1970 Holloway ..... 128/141
- 3,602,219 8/1971 Warncke ..... 128/146.5
- 3,680,555 8/1972 Warncke ..... 128/141 R

(List continued on next page.)

**FOREIGN PATENT DOCUMENTS**

- 0 511 593 A1 11/1992 European Pat. Off. .... A62B 18/02
- 2 268 076 1/1994 United Kingdom ..... A62B 18/08
- WO 91/01159 2/1991 WIPO ..... A62B 18/10
- WO 92/19322 11/1992 WIPO ..... A62B 18/02
- WO 93/14819 8/1993 WIPO ..... A62B 18/02

**OTHER PUBLICATIONS**

- MSA Advantage 1000 Low-Maintenance Respirator product literature (1993).
- Scott Weld-O-Vista™ product literature (1994).
- MSA Constant Flow or Pressure Demand Duo-Flo™ Respirator product literature (1988).
- MSA Optimair™ 6A Papr with Optifilter™ Cartridges product literature (1992).
- ProTech Respirators, Inc. product literature (1993).
- Scott Health & Safety Full-Line Catalog product literature (May 1989).
- MSA Ultra Elite™ Facepiece product literature dated (1994).
- Dräger Luft holen . . . Der Atemschutz-Katalog (1993-1994).
- Scott respirator product literature (1992).

(List continued on next page.)

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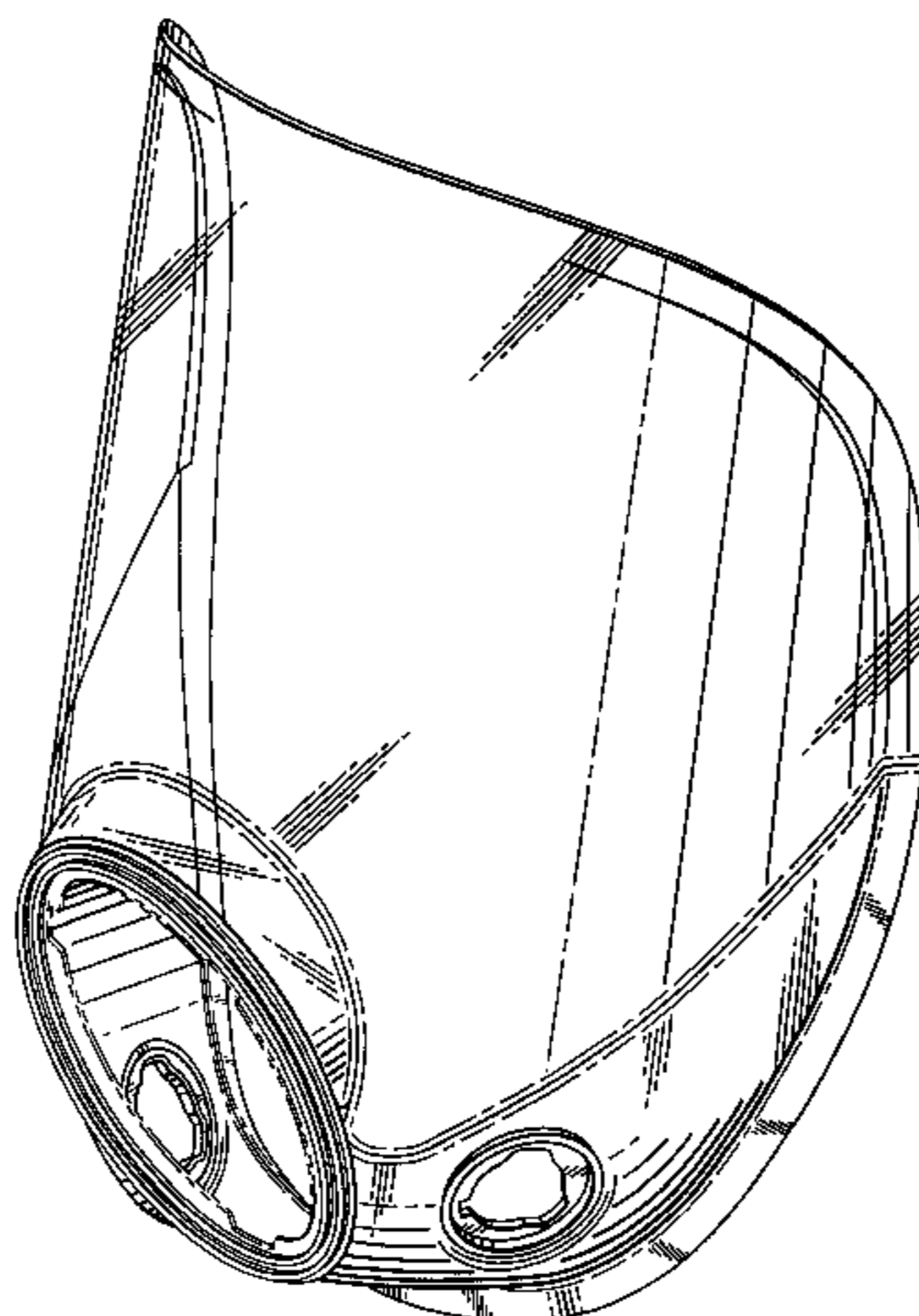
[57] **CLAIM**

The ornamental design for a full face respirator lens, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of a full face respirator lens showing the new design.  
FIG. 2 is a front elevational view thereof.  
FIG. 3 is a left-side elevational view thereof.  
FIG. 4 is a right-side elevational view thereof.  
FIG. 5 is a rear elevational view thereof.  
FIG. 6 is a bottom elevational view thereof; and,  
FIG. 7 is a top elevational view thereof.  
The broken lines in FIGS. 1, 2, and 5-7 are for illustrative purposes only and form no part of the claimed design.

**1 Claim, 6 Drawing Sheets**



## U.S. PATENT DOCUMENTS

4,057,057	11/1977	Backlund .....	128/142.4
4,069,516	1/1978	Watkins, Jr. ....	2/428
4,167,185	9/1979	Lewis .....	128/146.7
4,373,520	2/1983	Arbique .....	128/201.19
4,402,316	9/1983	Gadberry .....	128/201.15
4,414,973	11/1983	Matheson et al. ....	128/206.15
4,574,799	3/1986	Warncke .....	128/206.24
4,595,003	6/1986	Shoemaker et al. ....	128/201.19
4,739,755	4/1988	White et al. ....	128/206.12
4,756,308	7/1988	Ryback .....	128/201.19
4,850,346	7/1989	Michel et al. ....	128/206.15
4,881,538	11/1989	Angell .....	128/201.15
4,960,121	10/1990	Nelson et al. ....	128/206.24
4,961,420	10/1990	Cappa et al. ....	128/207.12
5,069,205	12/1991	Urso .....	128/206.12
5,080,092	1/1992	Tenna .....	128/201.19

## OTHER PUBLICATIONS

Cabot Safety Respirator Products—The Life Line product literature (1993).  
North RP-107 Air-Purifying Respiratory Protection Catalog (1991).

MSA Comfo® II and Comfo Elite® Respirators product literature (1993).

MSA Comfo Classic Respirators product literature (1995).

MSA ComfoElite™ product literature (1990).

Gerson Signature Series 9000 product literature (1995).

Gerson Signature Series 8000 product literature (1995).

Willson product literature (1991).

The Lab Safety Supply Catalog “Respirators” pp. 130, 112, 110, 1994, Ex Room.

ISI Facemask product literature—admitted prior art.

Neoterik advertisement for the Technirama respirator—admitted prior art.

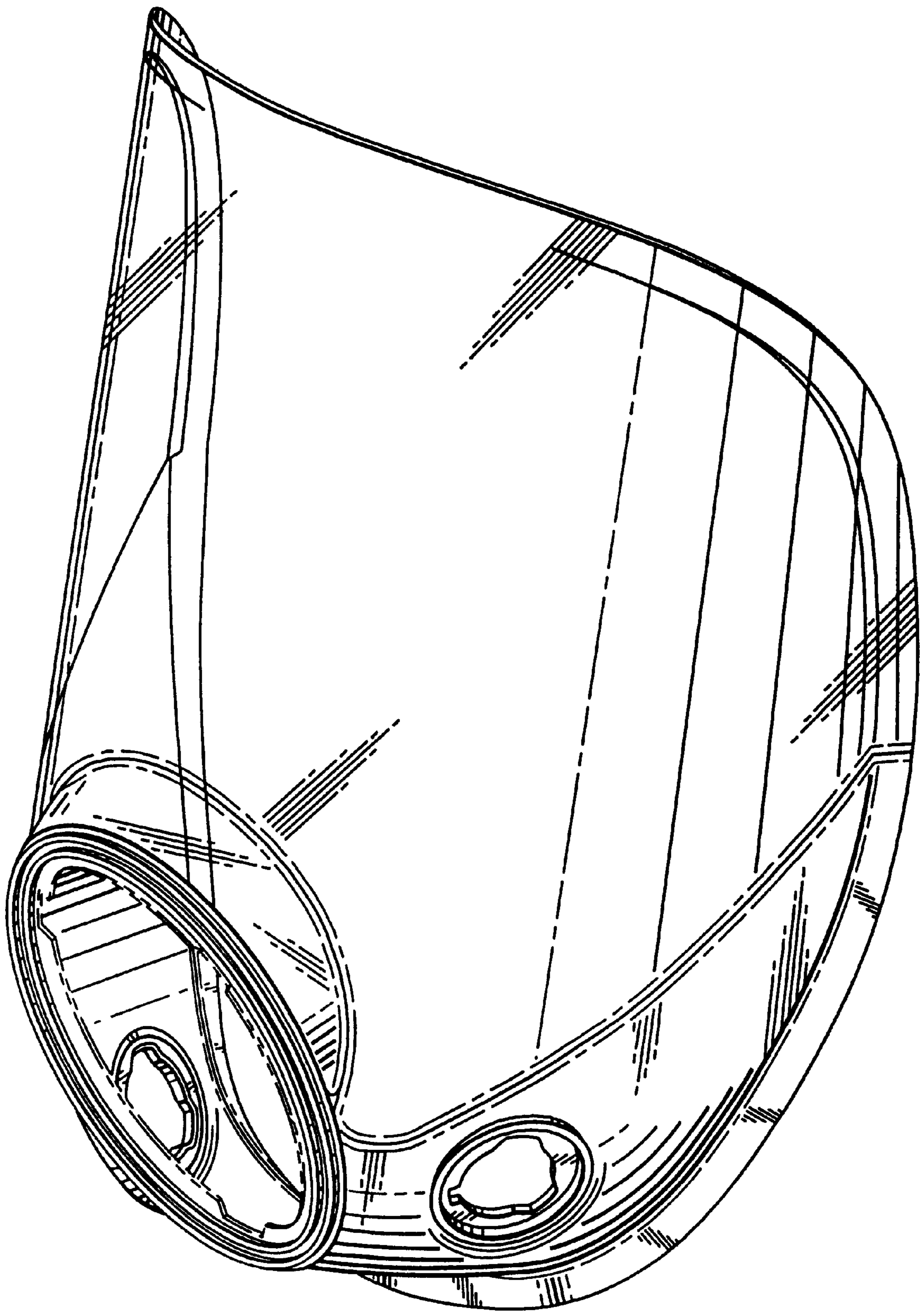
Dräger Atemkomfort mit DrägerSchutz Panorama BelAir M product literature—admitted prior art.

Dräger Luft holen . . . Der Atemschutz-Katalog (1993–1994).

Scott respirator product literature (1992).

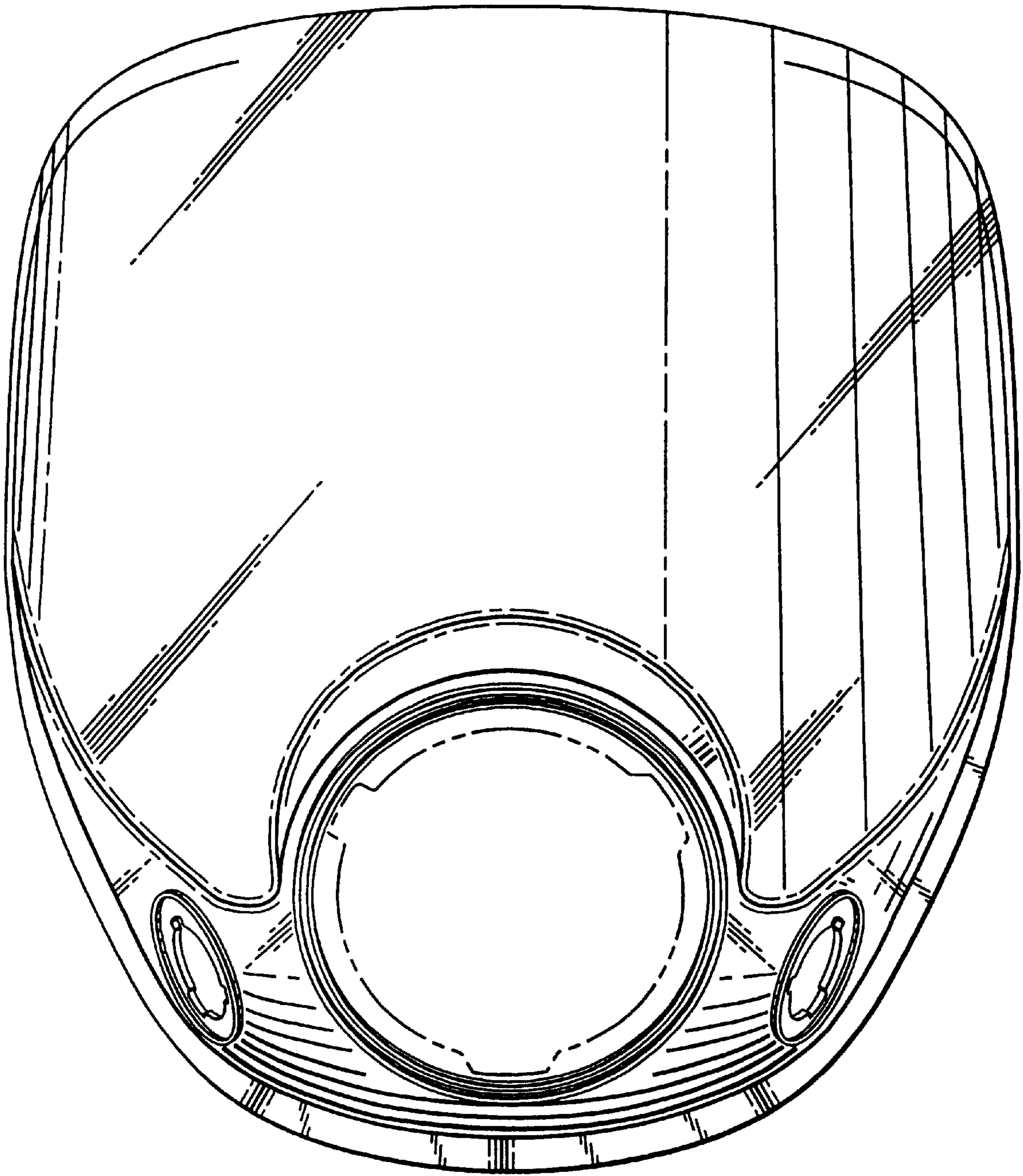
Bilsom Group Eye, Face, Respiratory and Hearing Protection product literature—admitted prior art.

North 7600 Series Full Facepiece Air-Purifying Respirators—admitted prior art.

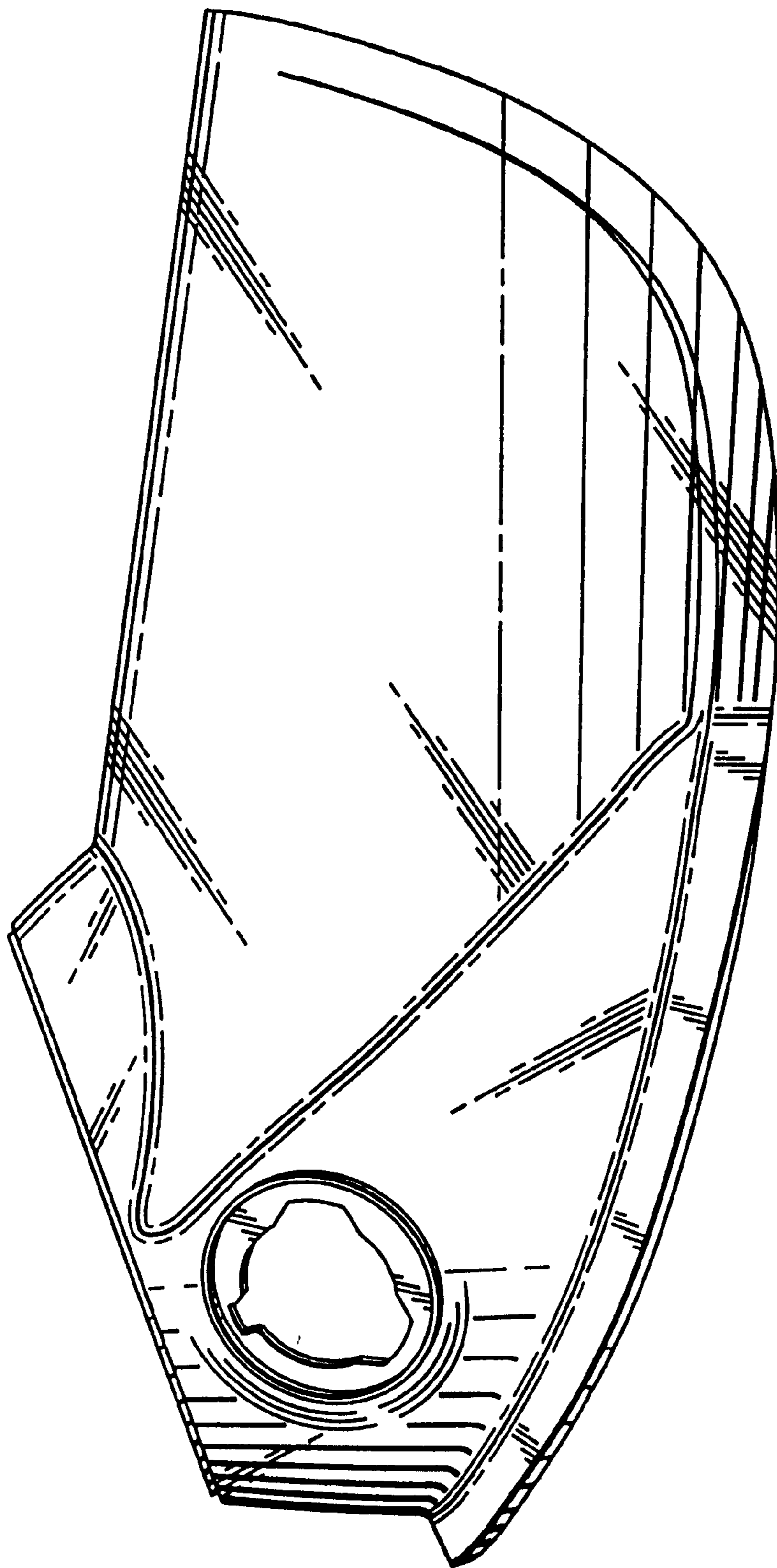


*Fig. 1*

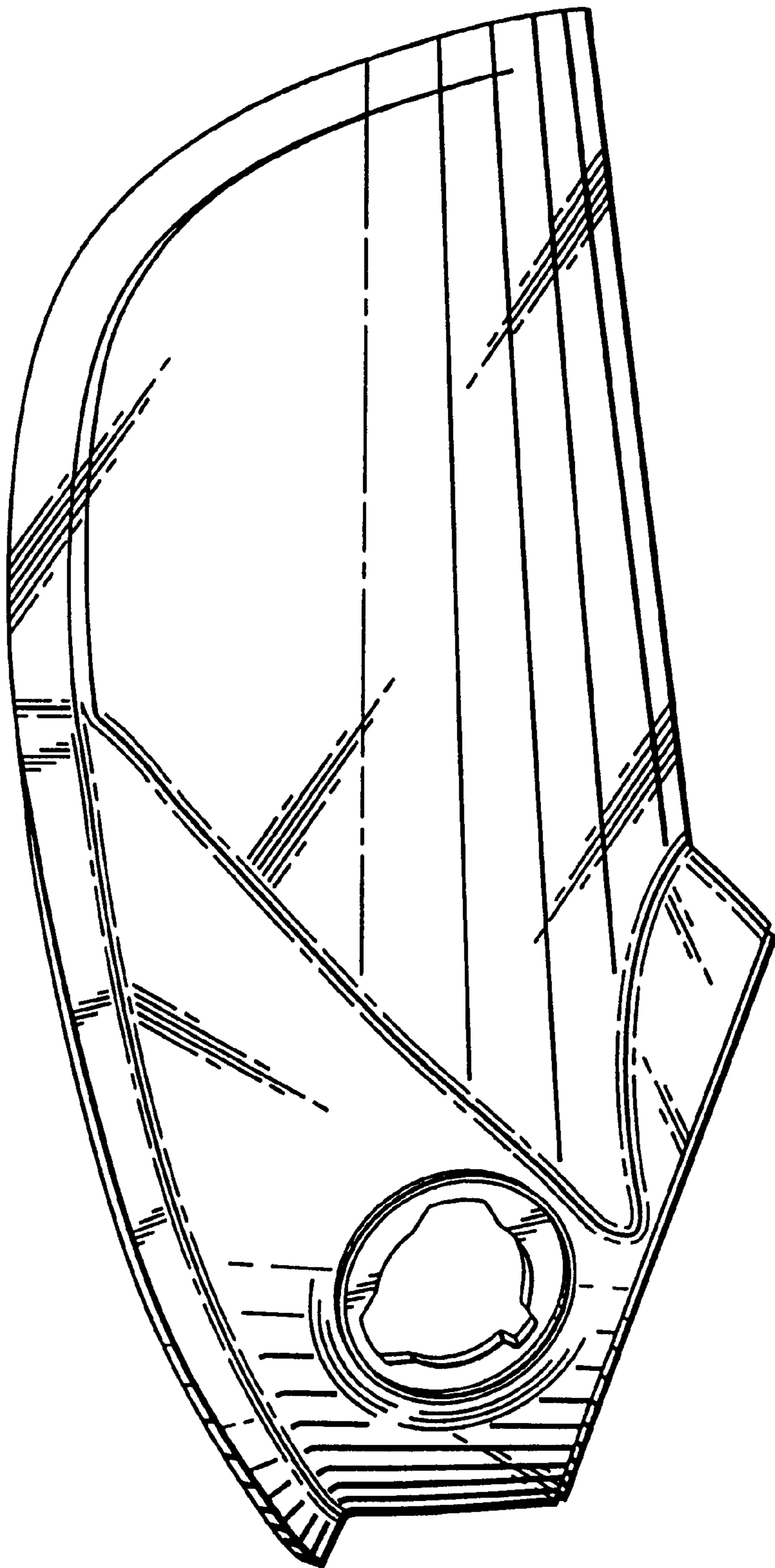




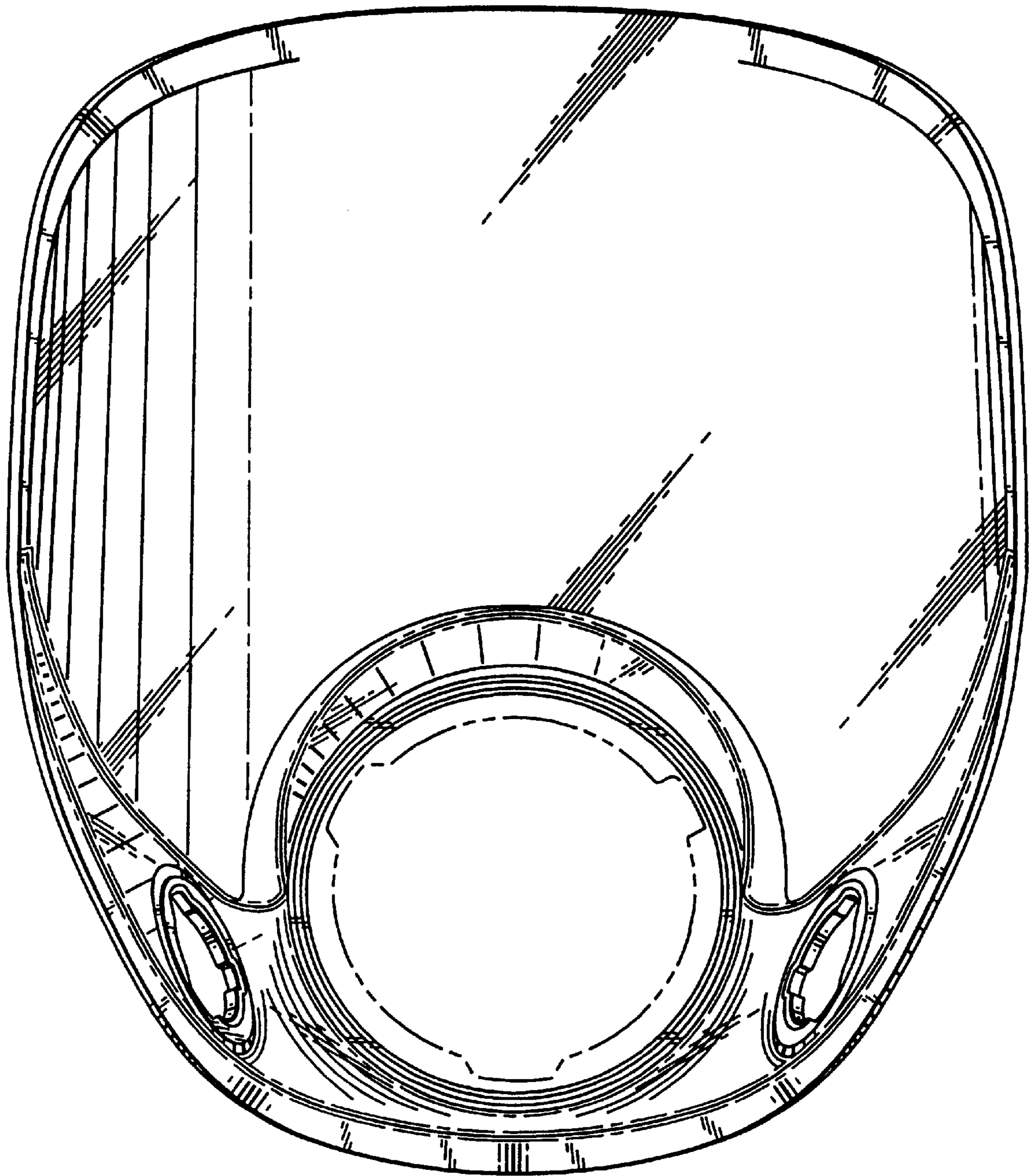
*Fig. 2*



***Fig. 3***

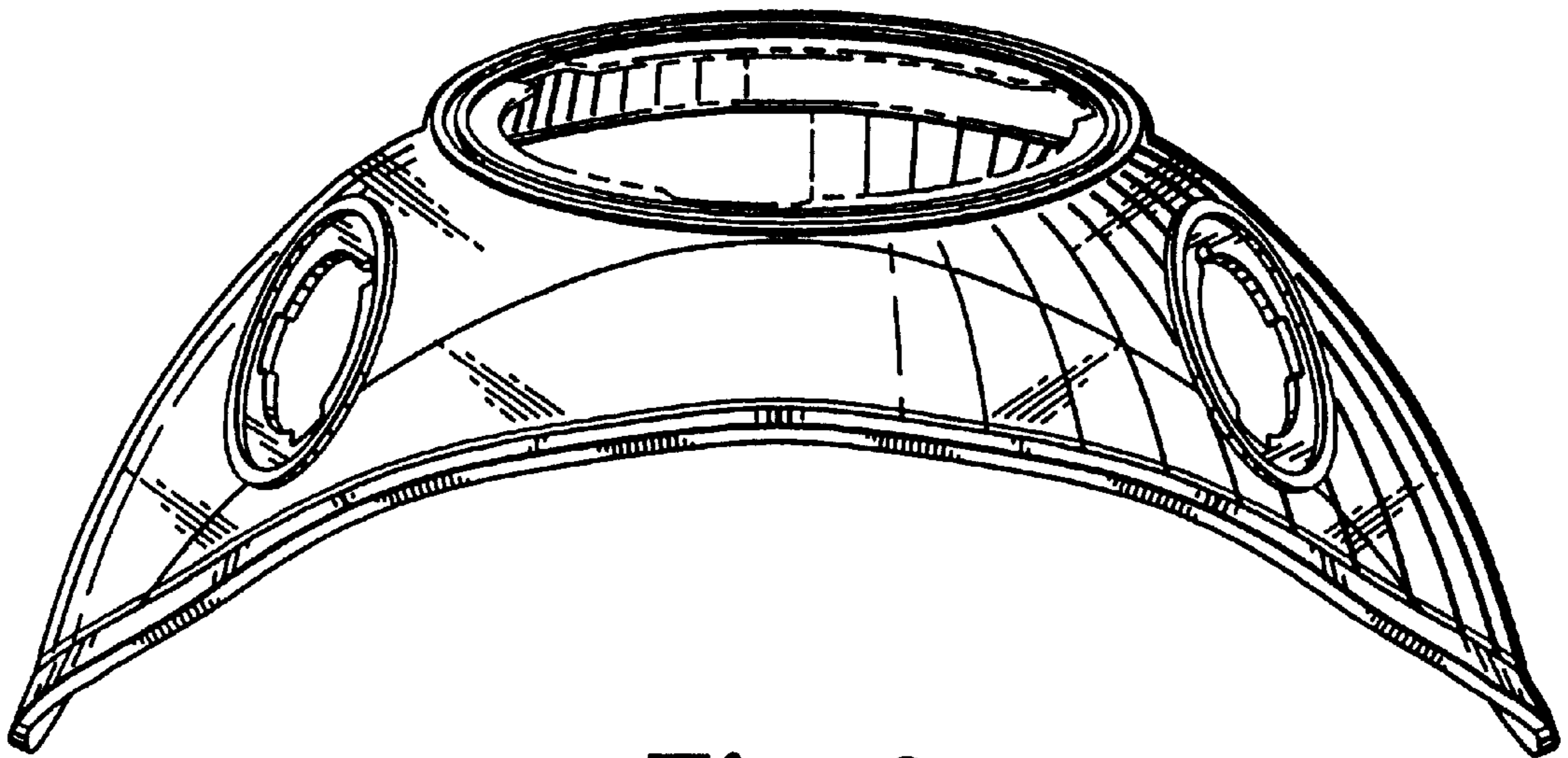


***Fig. 4***

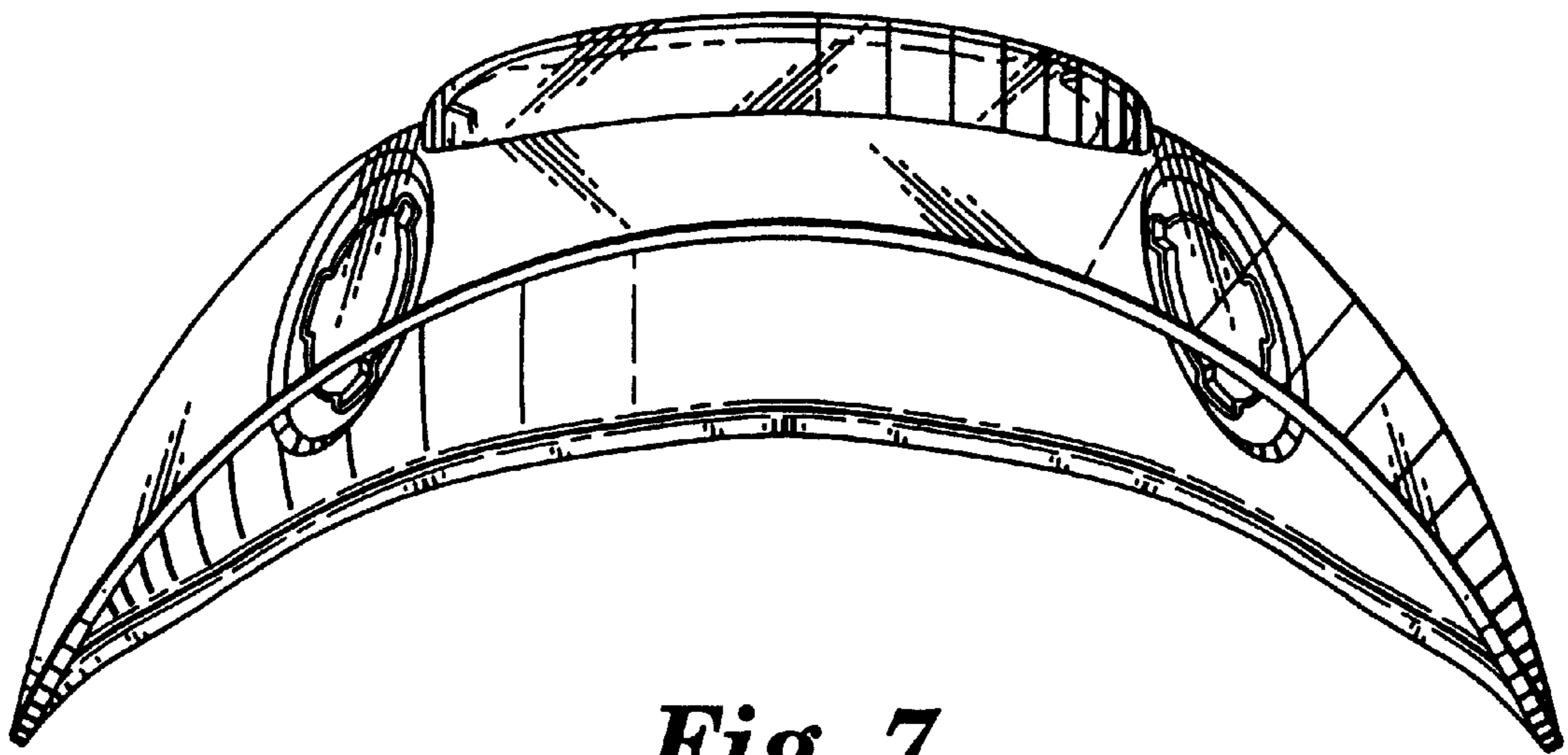


*Fig. 5*





*Fig. 6*



*Fig. 7*