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# United States Patent [19]

Reischel et al.

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## [54] FULL FACE RESPIRATOR

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

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

[21] Appl. No.: **45,750**

[22] Filed: **Oct. 27, 1995**

[52] U.S. Cl. .... **D24/110.2; D24/110.1**

[58] Field of Search ..... **D24/110.2, 110.3, 110.4, 110.5; 128/206.12, 206.15, 206.17, 206.23, 206.21, 201.24, 206.19; D29/124**

## [56] References Cited

### U.S. PATENT DOCUMENTS

D. 249,368	9/1978	Watkins, Jr. ....	D29/9
D. 336,546	6/1993	Lybrand .....	D24/110.2
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
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

(List continued on next page.)

### FOREIGN PATENT DOCUMENTS

0511593A1	11/1992	European Pat. Off. .
2268076	1/1994	United Kingdom .
WO91/01159	2/1991	WIPO .
WO92/19322	11/1992	WIPO .
WO93/14819	8/1993	WIPO .

## OTHER PUBLICATIONS

The Lab Safety Supply Catalog "Respirators" pp. 130, 112, 110 @1994 Ex Room.

ISI Facemask product literature (Prior Art).

(List continued on next page.)

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## [57] CLAIM

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

## DESCRIPTION

FIG. 1 is a perspective view of a full face respirator showing a first embodiment of the new design;

FIG. 2 is a front elevational view of the full face respirator of FIG. 1;

FIG. 3 is a left side elevational view of the full face respirator of FIG. 1. The right side is a mirror image of the left side;

FIG. 4 is a rear elevational view of the full face respirator of FIG. 1;

FIG. 5 is a bottom elevational view of the full face respirator of FIG. 1;

FIG. 6 is a top elevational view of the full face respirator of FIG. 1;

FIG. 7 is a perspective view of a full face respirator showing a second embodiment of the new design;

FIG. 8 is a front elevational view of the full face respirator of FIG. 7;

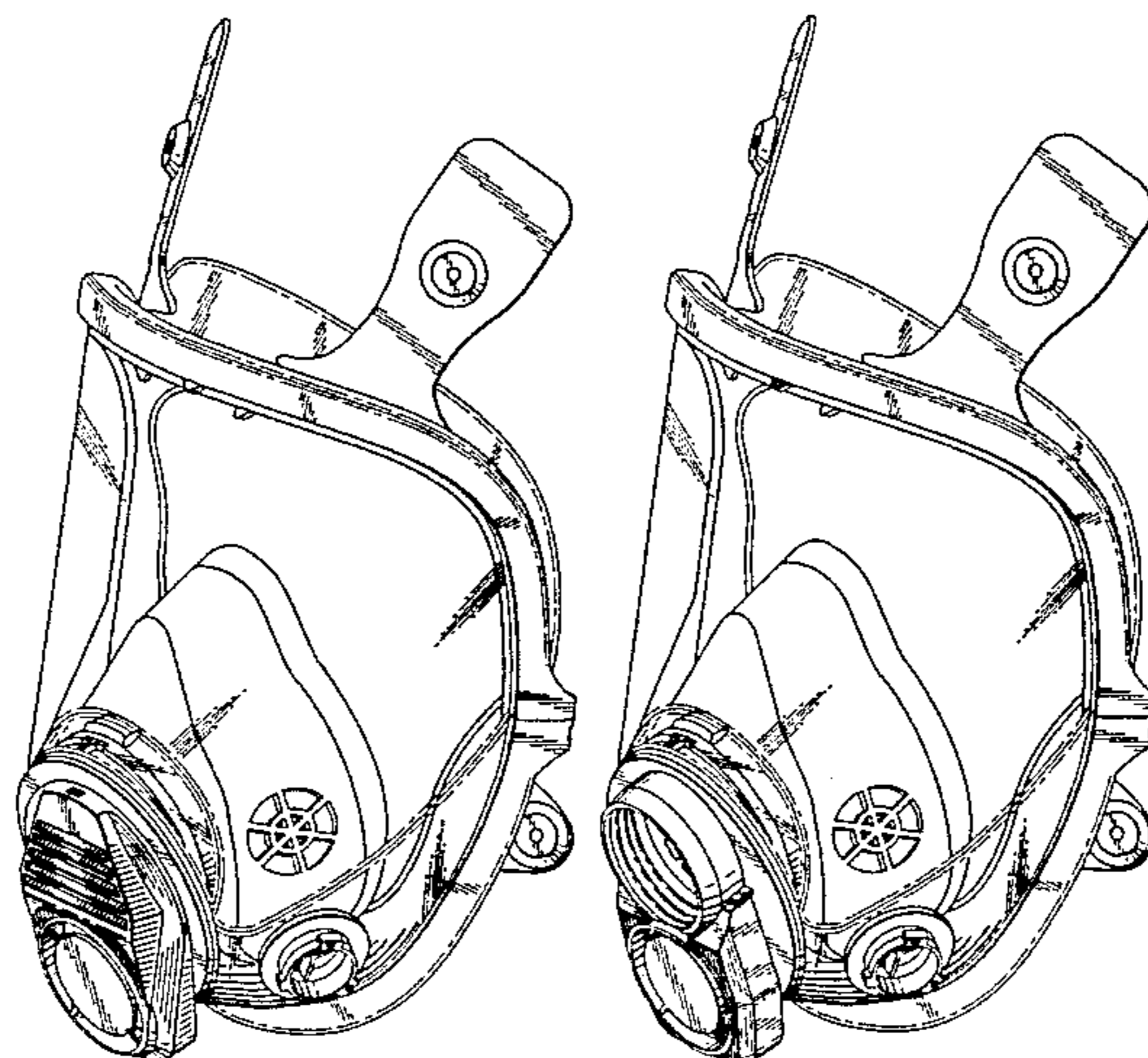
FIG. 9 is a left side elevational view of the full face respirator of FIG. 7. The right side is a mirror image of the left side;

FIG. 10 is a rear elevational view of the full face respirator of FIG. 7;

FIG. 11 is a bottom elevational view of the full face respirator of FIG. 7; and,

FIG. 12 is a top elevational view of the full face respirator of FIG. 7.

**1 Claim, 10 Drawing Sheets**



## U.S. PATENT DOCUMENTS

4,595,003	6/1986	Shoemaker et al. ....	128/206.17 X
4,739,755	4/1988	White et al. ....	128/206.12
4,756,308	7/1988	Ryback .....	D24/110.2 X
4,850,346	7/1989	Michel et al. ....	128/206.15 X
4,881,538	11/1989	Angell .....	128/201.15
4,960,121	10/1990	Nelson et al. ....	D24/10.4 X
4,961,420	10/1990	Cappa et al. ....	128/207.12
5,069,205	12/1991	Urso .....	128/201.24
5,080,092	1/1992	Tenna .....	128/201.19

## OTHER PUBLICATIONS

Neoterik advertisement for the Technirama respirator (Prior Art).

MSA Advantage 1000 Low-Maintenance Respirator product literature (1993).

Scott Weld-O-Vista™ product literature (1994).

MSA Constant Flow or Pressure Demand Duo-Flo™ and Duo-Twin™ Respirator product literature (1988).

MSA Optimair™ 6A Papr with Optifilter™ Cartridges product literature (1992).

ProTech Respirators, Inc. product literature (1993).

Dräger Atemkomfort mit DrägerSchutz Panorama BelAir M product literature (Prior Art).

Scott Health & Safety Full-Line Catalog product literature (May 1989).

MSA Ultra Elite™ Facepiece product literature dated (1994).

Fernez Cosmo The Innovative Mask product literature (Prior Art).

Cairns & Brother Cairns IRIS™ product literature (Prior Art).

Sekur Spa Sfera™ product literature (Prior Art).

SGE 600 product literature.

Dräger Atemkomfort mit DrägerSchutz: Panorama BelAir product literature (6 pages) 91.

Dräger Luft holen . . . Der Atemschutz-Katalog (1993/94).

Scott respirator product literature (1992).

Cabot Safety Respirator Products—The Life Line product literature (1993).

North RP-107 Air-Purifying Respiratory Protection Catalog (1991).

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

Bilsom Group Eye, Face, Respiratory and Hearing Protection product literature (Prior Art).

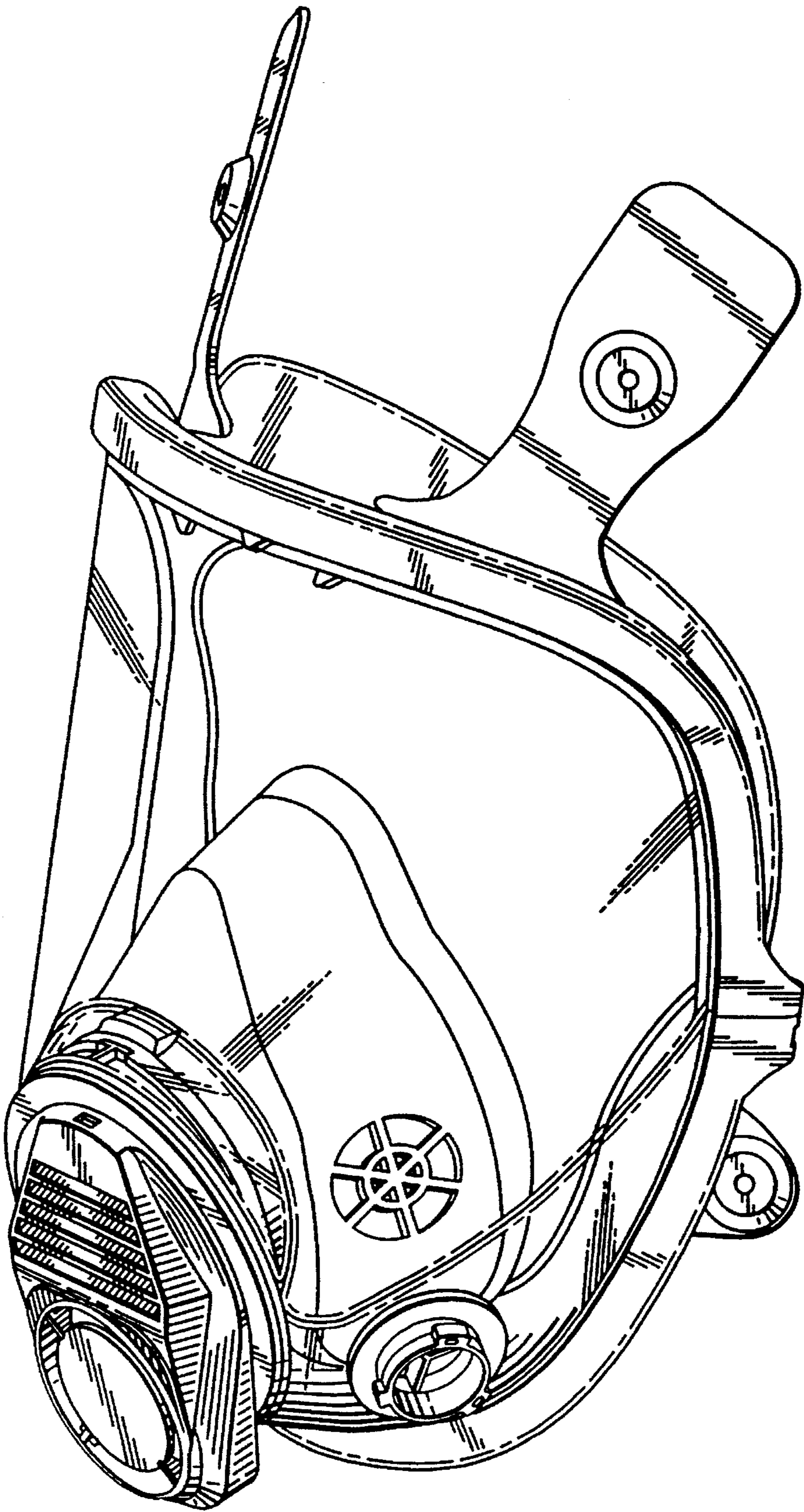
MSA Comfo CLassic Respirators product literature (1995).

MSA ComfoElite™ product literature (1990).

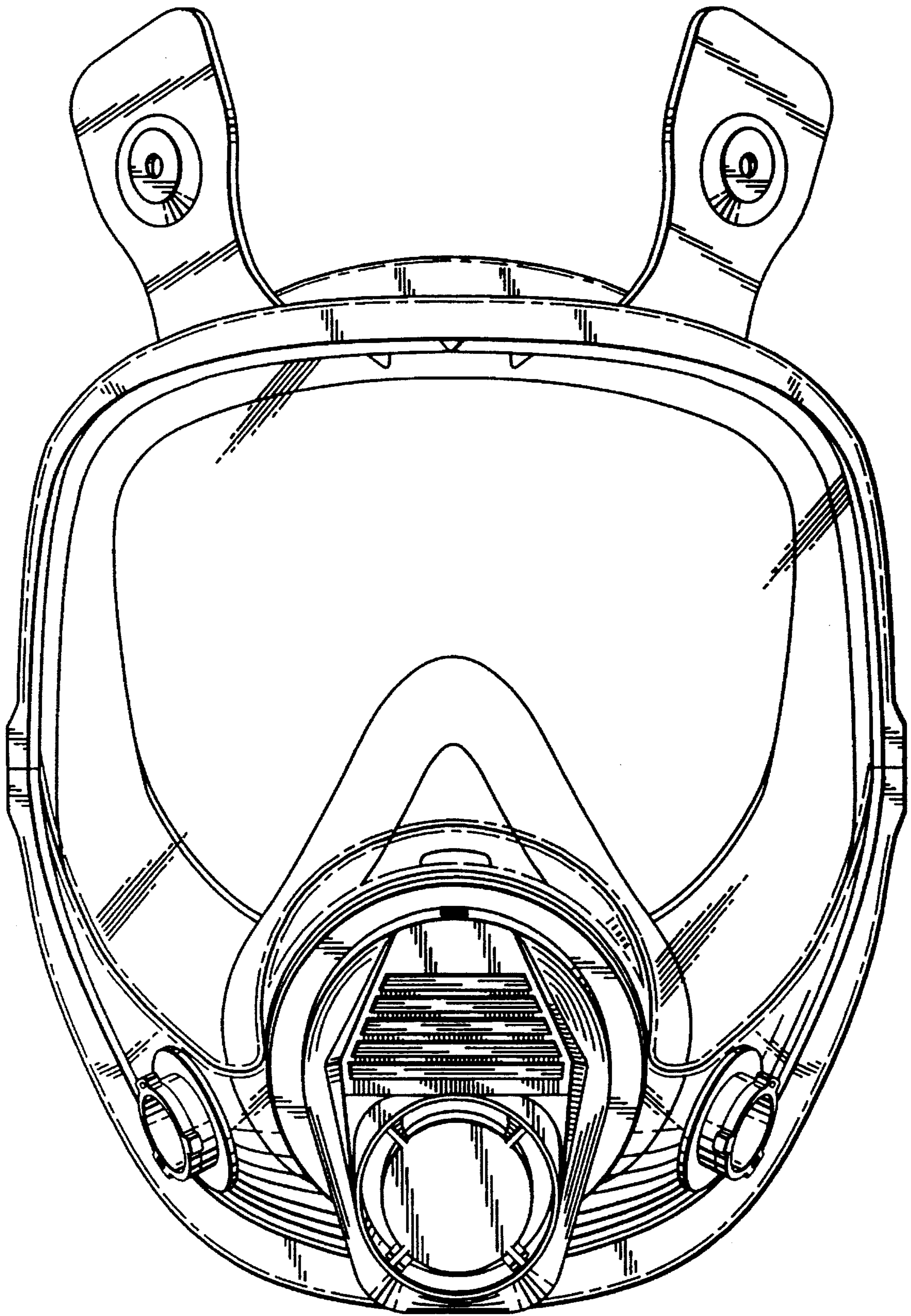
Gerson Signature Series 9000 product literature (1995).

Gerson Signature Series 8000 product literature (1995).

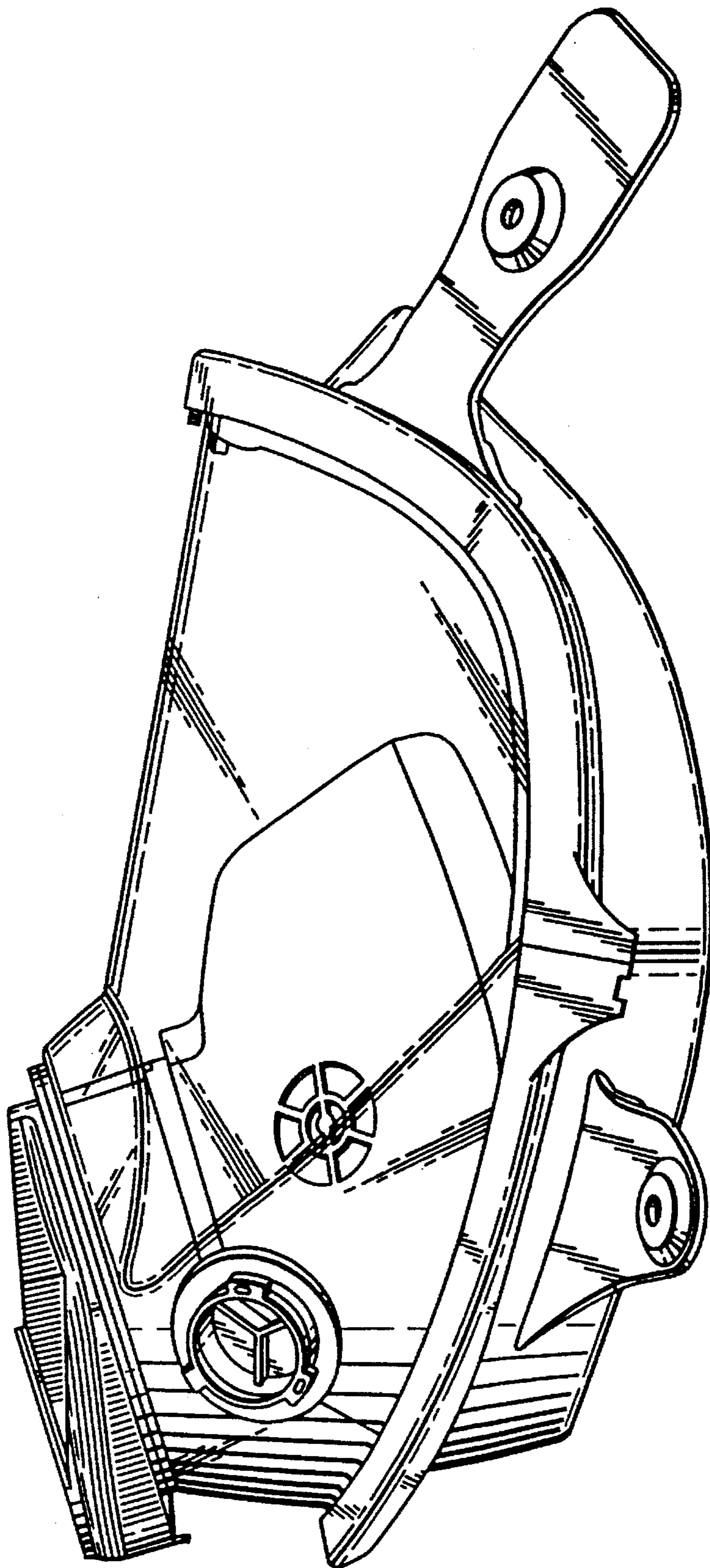
Willson product literature (1991).



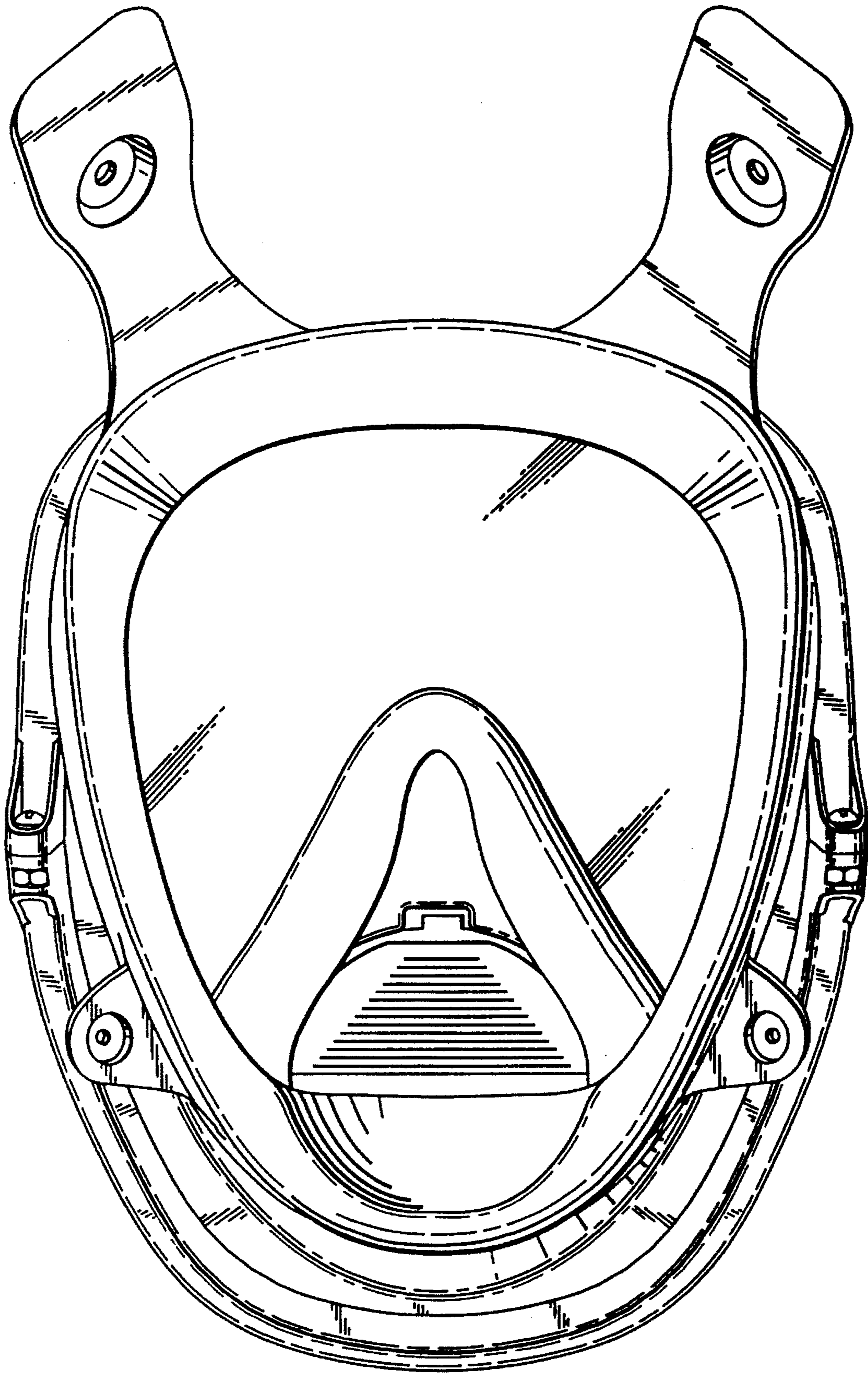
*Fig. 1*



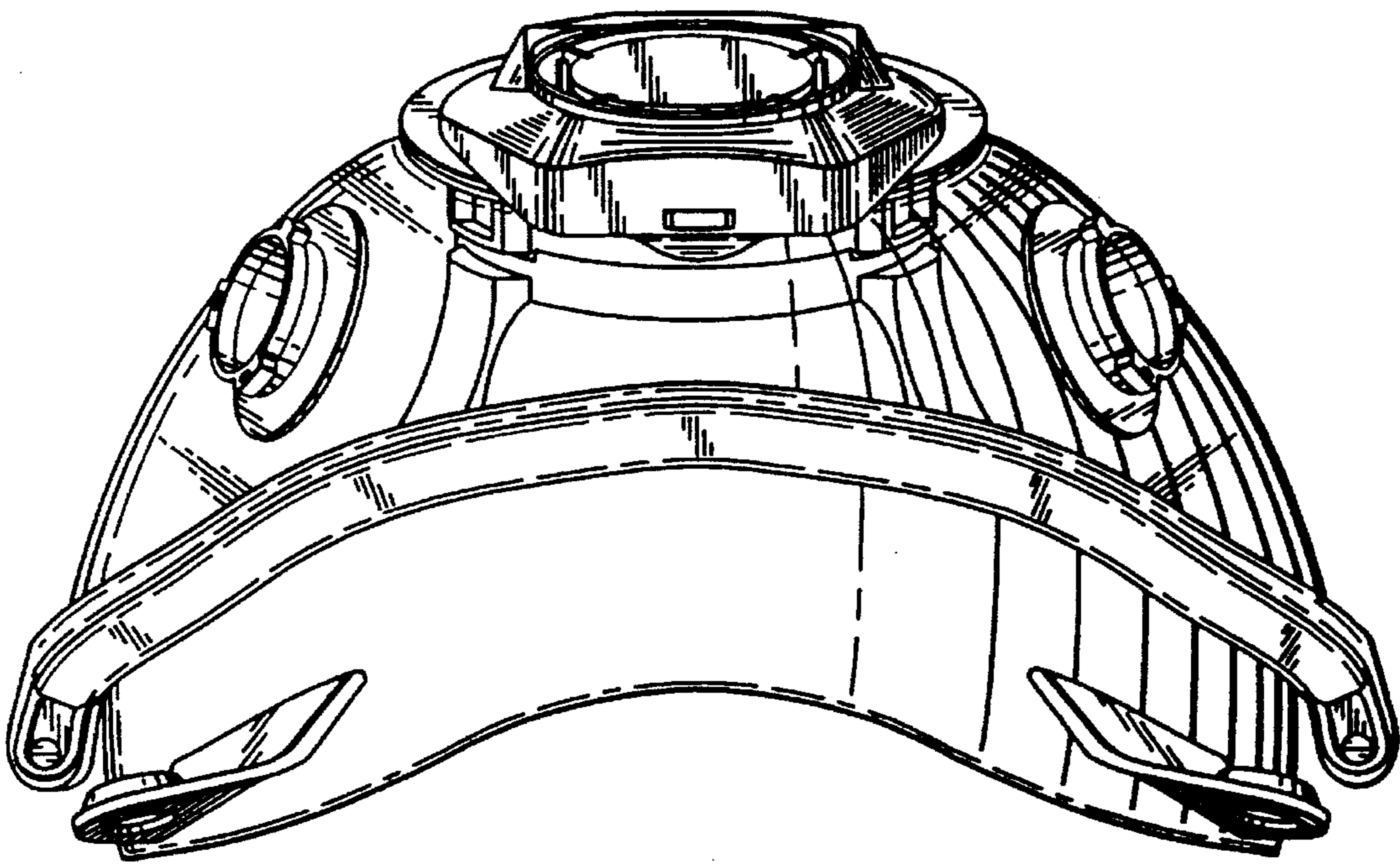
*Fig. 2*



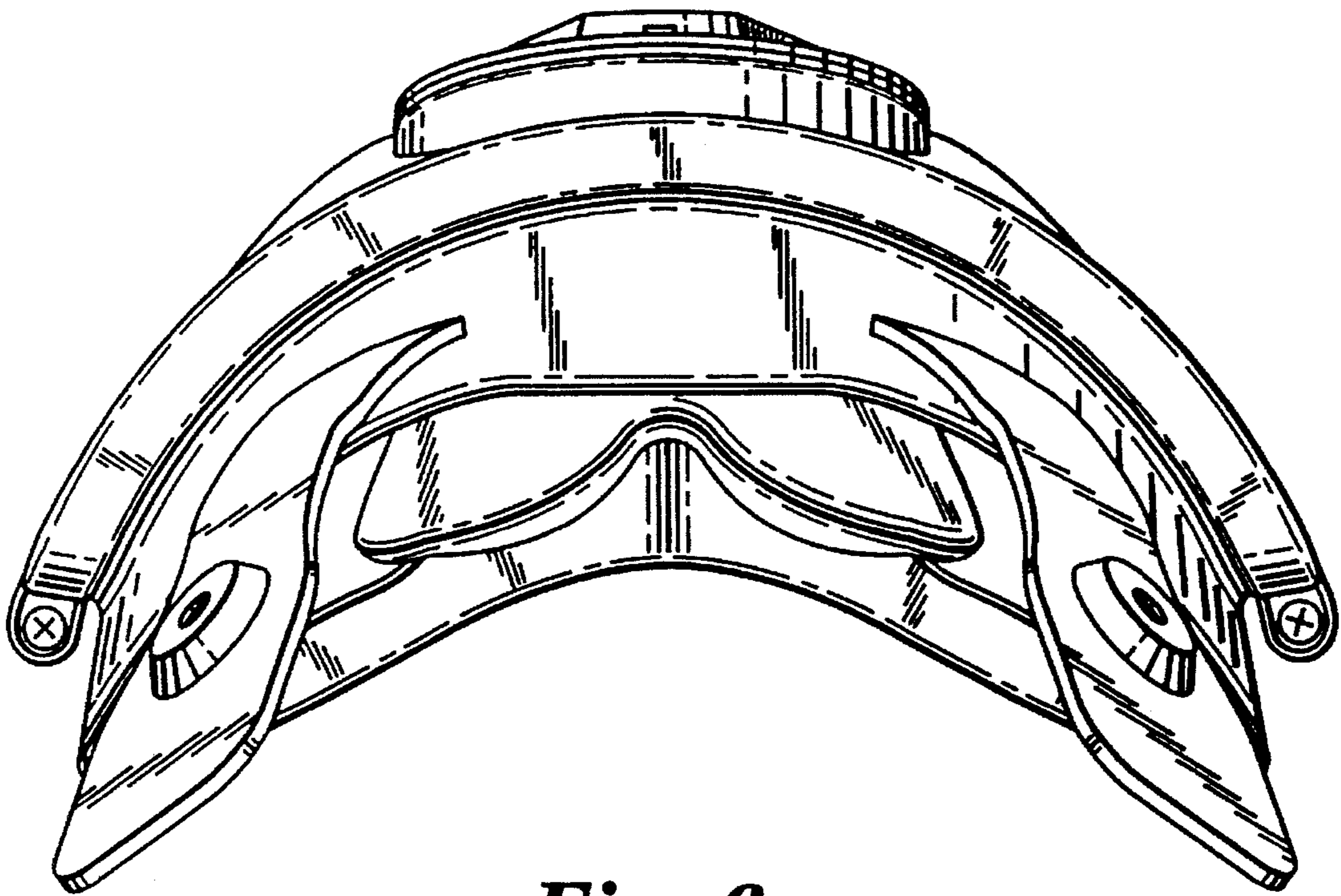
*Fig. 3*



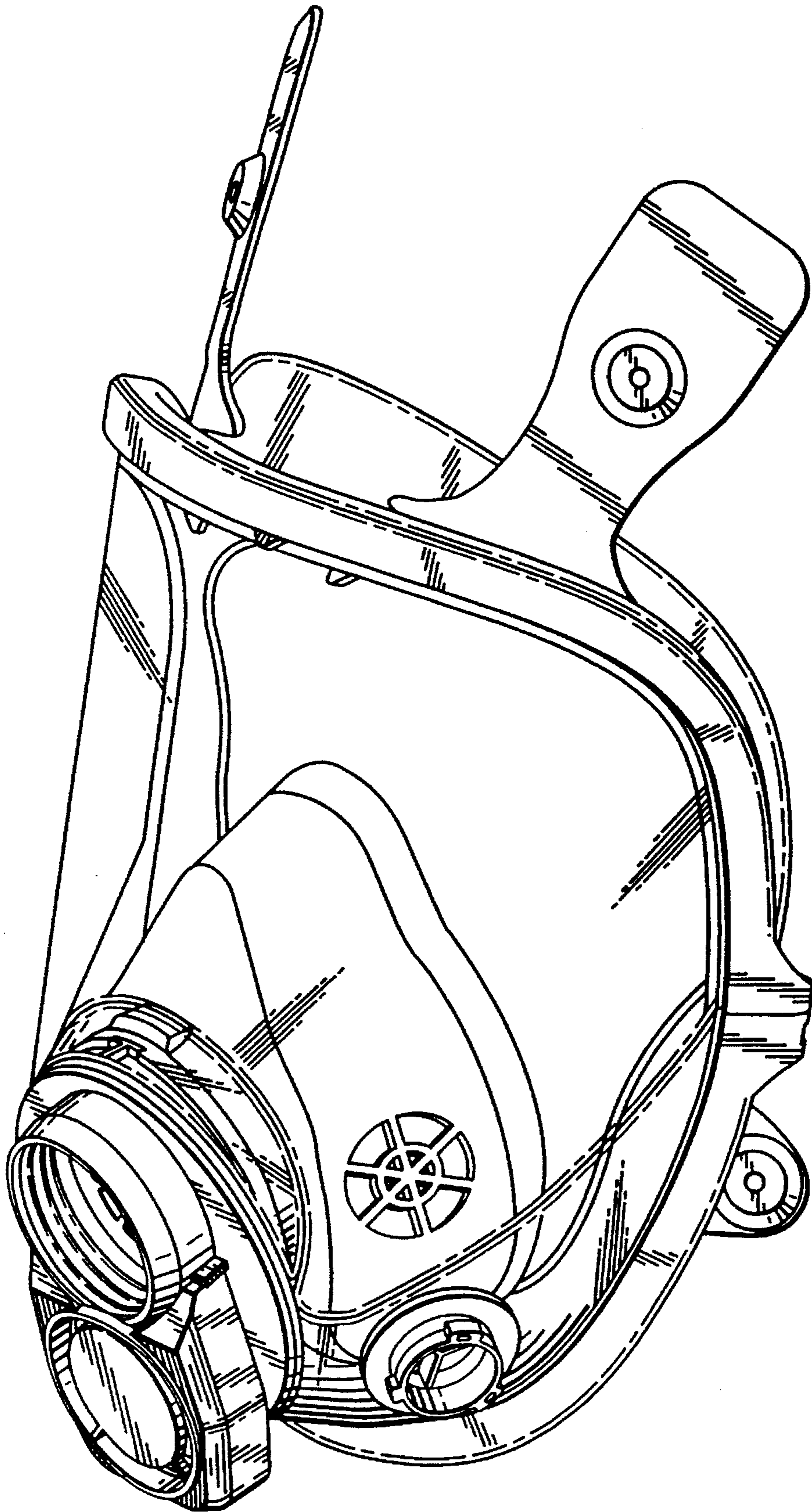
*Fig. 4*



*Fig. 5*

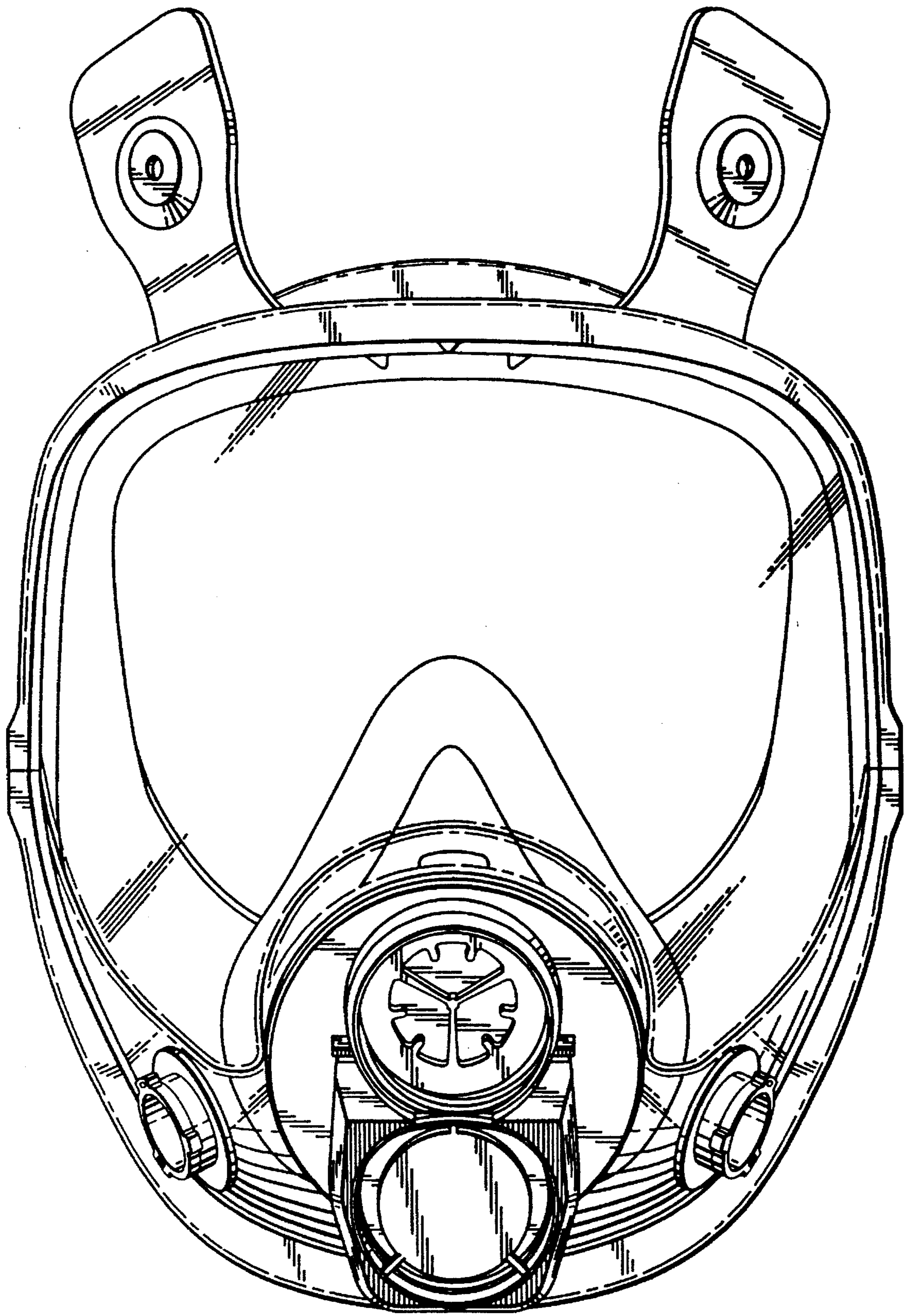


*Fig. 6*

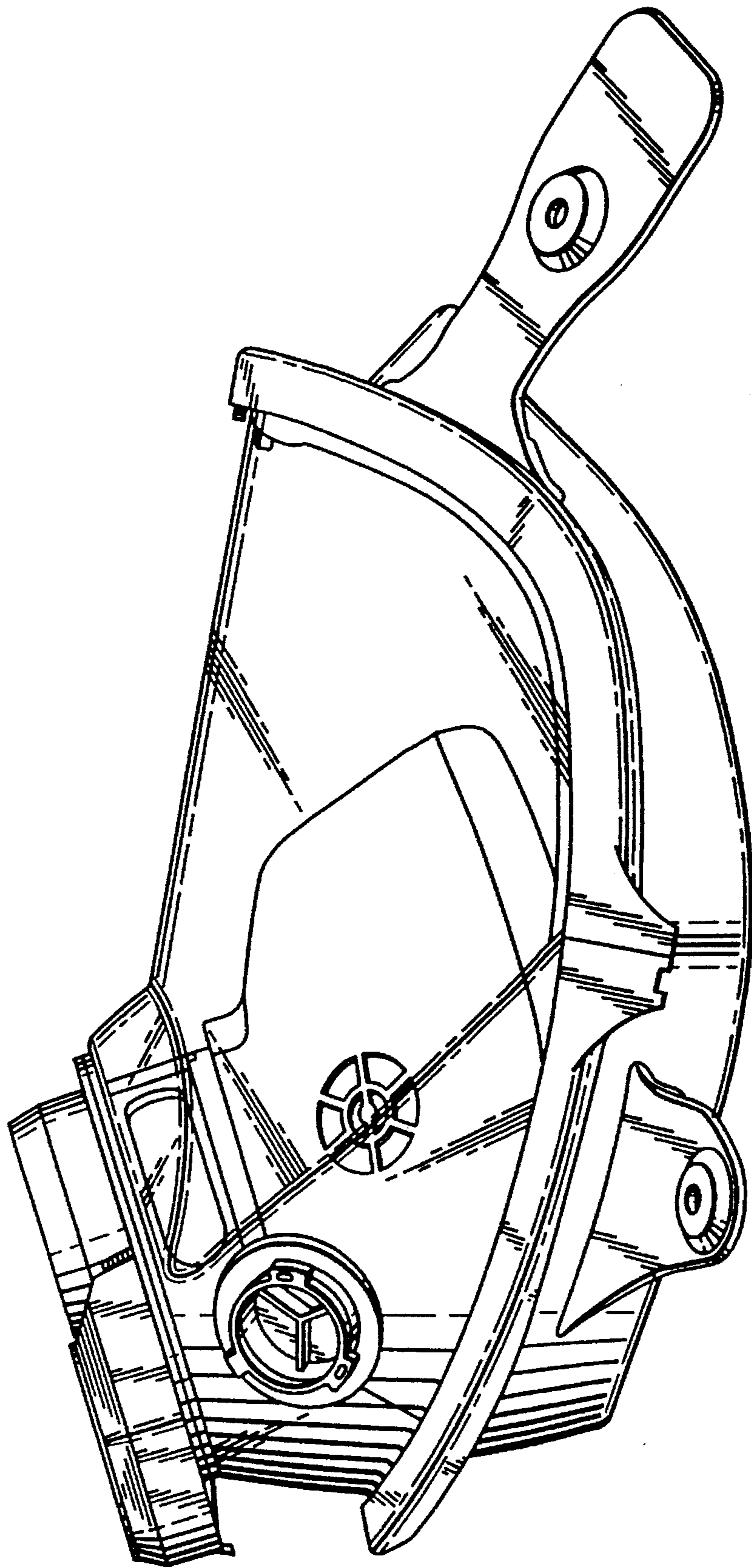


*Fig. 7*

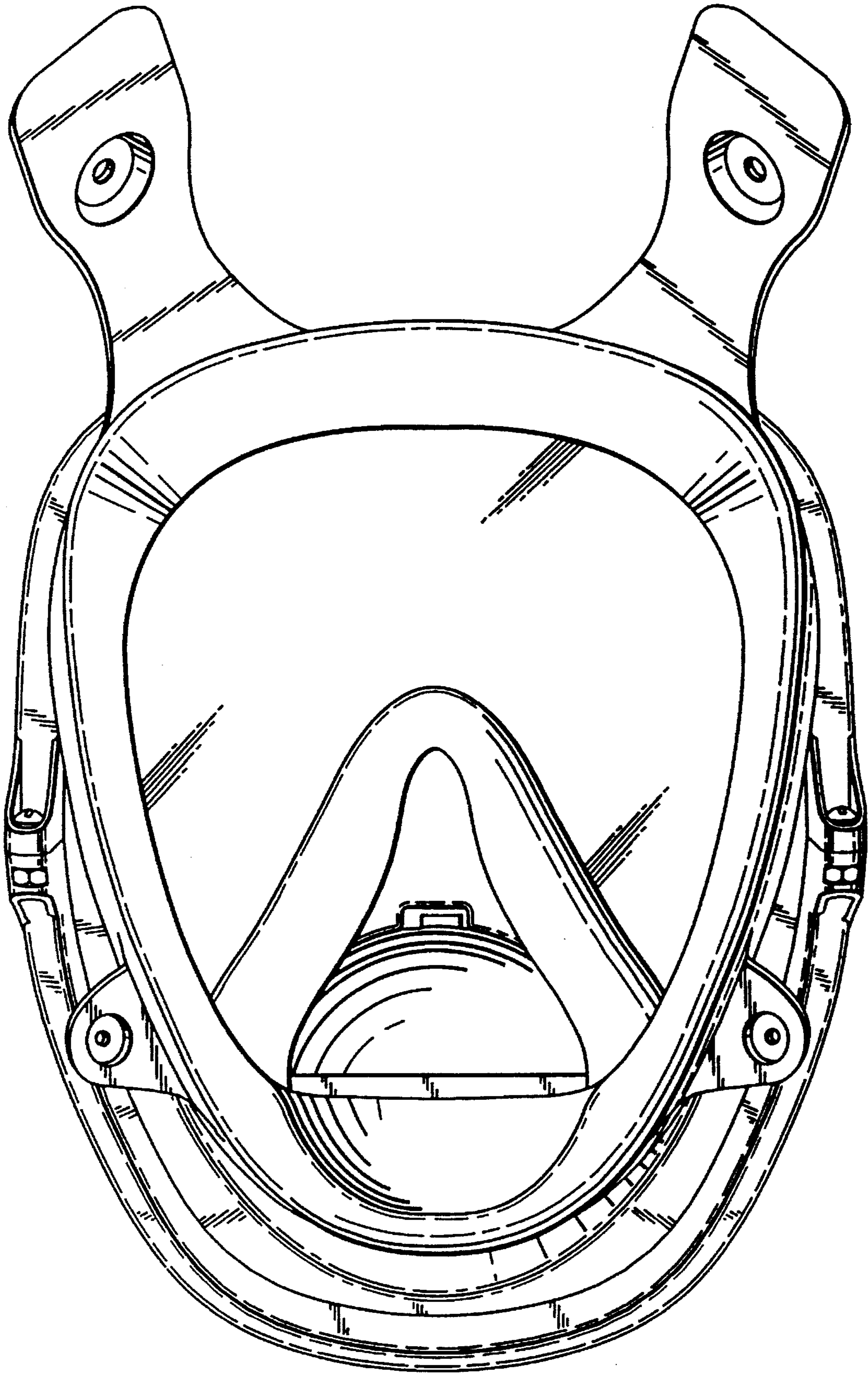




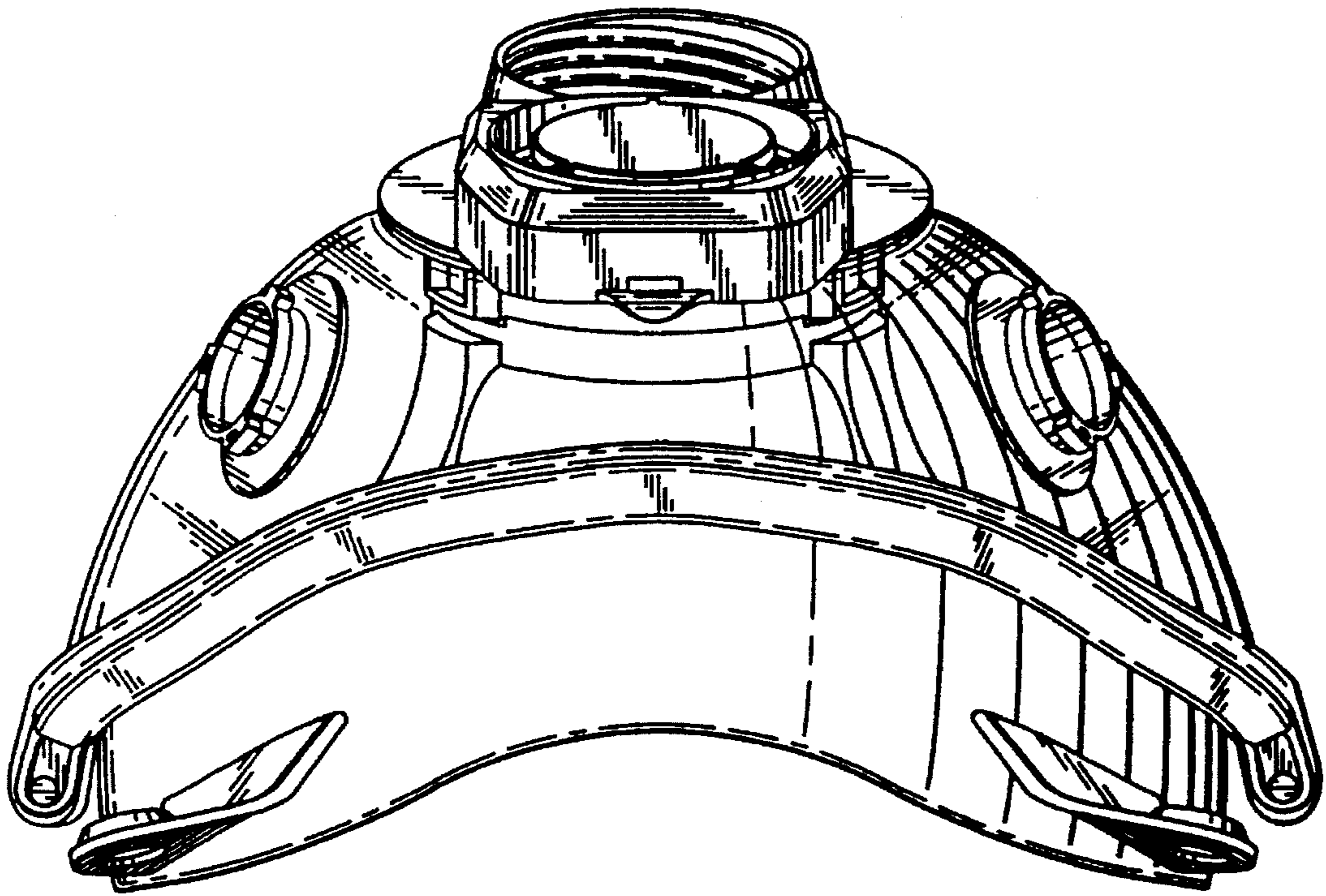
*Fig. 8*



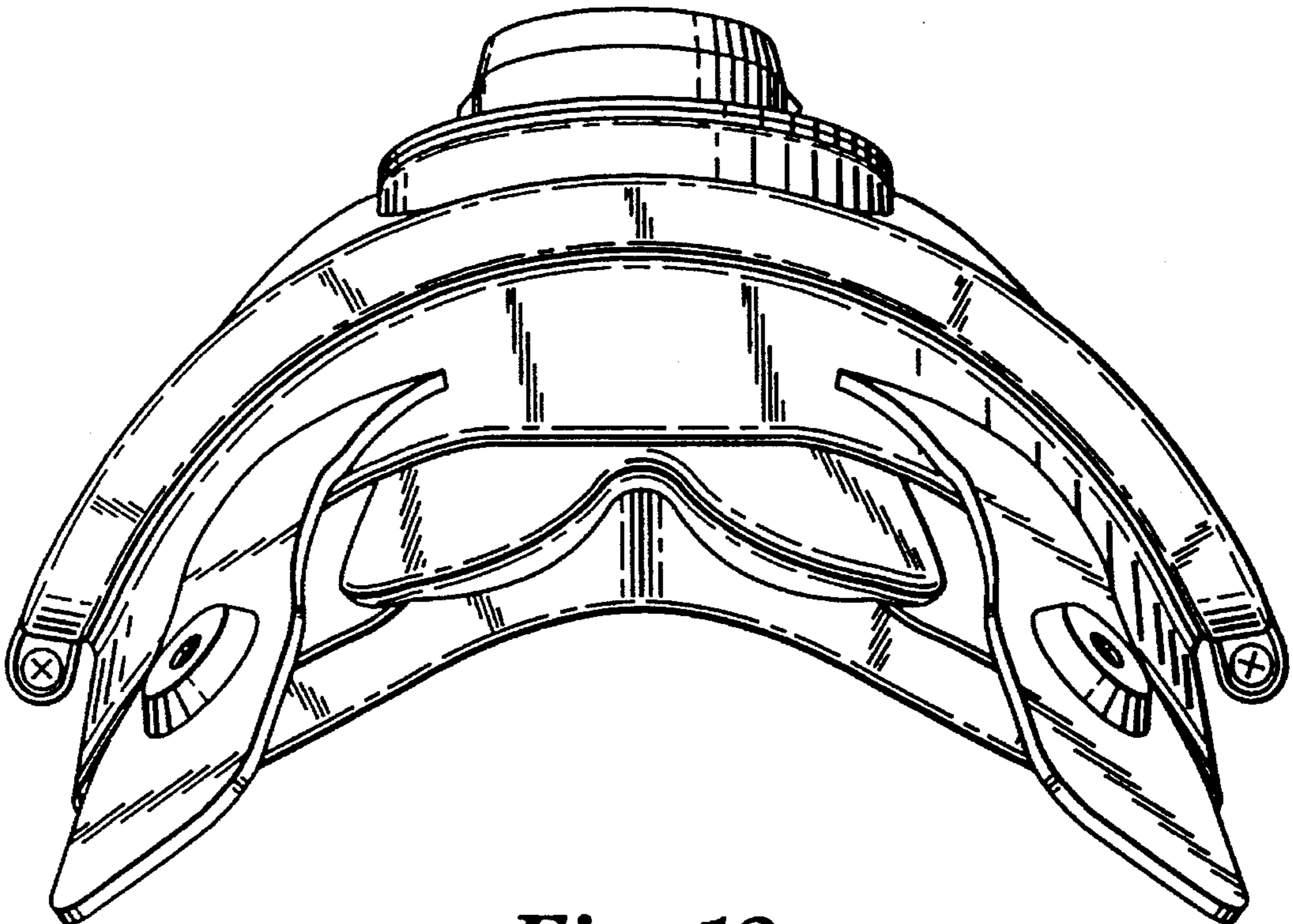
***Fig. 9***



***Fig. 10***



*Fig. 11*



*Fig. 12*