



US00D782120S

(12) **United States Design Patent**  
**Patel et al.**

(10) **Patent No.:** **US D782,120 S**  
(45) **Date of Patent:** **\*\* Mar. 21, 2017**

(54) **PROTECTIVE HELMET**

FOREIGN PATENT DOCUMENTS

(71) Applicant: **Illinois Tool Works Inc.**, Glenview, IL (US)

EP 2 184 039 A1 5/2010  
EP 2 462 825 A2 6/2012

(Continued)

(72) Inventors: **Nishank R. Patel**, Appleton, WI (US);  
**Eric T. Sommers**, Appleton, WI (US);  
**William P. Gardner**, Appleton, WI (US);  
**Stephanie J. Lowney**, Hortonville, WI (US);  
**Robert A. Podell**, Cottage Grove, WI (US);  
**John Clayton Mehnert**, Madison, WI (US);  
**Samuel B. Petre**, Wauwatosa, WI (US)

OTHER PUBLICATIONS

International Search Report and Written Opinion for PCT/US2015/033054 dated Aug. 31, 2015, 12 pages.

(Continued)

*Primary Examiner* — Robert Delehanty

(74) *Attorney, Agent, or Firm* — Klintworth & Rozenblat IP LLC

(73) Assignee: **ILLINOIS TOOL WORKS INC.**, Glenview, IL (US)

(57) **CLAIM**

We claim the ornamental design for a protective helmet, as shown and described.

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

**DESCRIPTION**

(21) Appl. No.: **29/526,692**

FIG. 1 is a top, front perspective view of a protective helmet. FIG. 2 is a front view of the protective helmet shown in FIG. 1.

(22) Filed: **May 12, 2015**

(51) **LOC (10) Cl.** ..... **29-03**

(52) **U.S. Cl.**  
USPC ..... **D29/122**

(58) **Field of Classification Search**  
USPC ..... D29/102–110, 112, 122; D2/866; D7/402, 405–406; D8/310–311  
CPC .... A42B 3/18; A42B 3/22; A42B 1/06; A42B 1/24; A42B 1/08; A42B 3/145; A42B 3/085; A62B 18/08; A62B 18/00; A62B  
(Continued)

FIG. 3 is a left side view of the protective helmet shown in FIG. 1.

FIG. 4 is a right side view of the protective helmet shown in FIG. 1.

FIG. 5 is a top view of the protective helmet shown in FIG. 1; and,

FIG. 6 is a bottom view of the protective helmet shown in FIG. 1.

Portions of the protective helmet and any exemplary environment shown in broken lines are for illustrative purposes only and form no part of the claimed design. Moreover, the broken lines define the bounds of the claimed design and form no part thereof. Since the broken lines form the bounds of the claimed design, any area inside the broken lines forms no part of the claimed design.

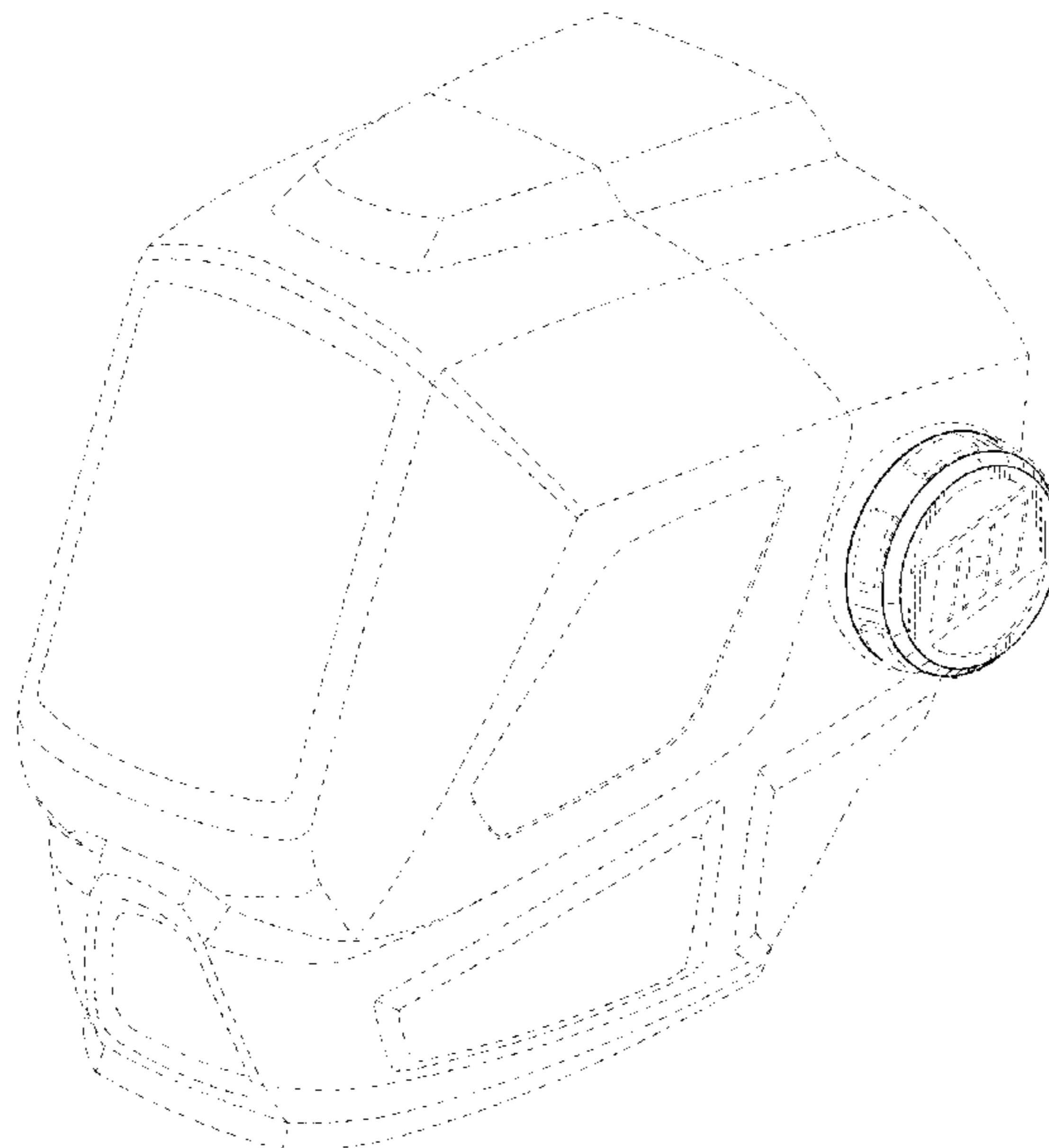
(56) **References Cited**

U.S. PATENT DOCUMENTS

3,413,972 A 12/1968 Depping  
3,430,263 A 3/1969 Newcomb

(Continued)

**1 Claim, 6 Drawing Sheets**



(58) **Field of Classification Search**

CPC ..... 18/24; A62B 18/045; A61F 9/06; A61F 9/068; A61F 9/025; A61F 9/061

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,109,320 A \* 8/1978 Anderson ..... A61F 9/06  
2/10  
4,293,757 A 10/1981 Niemi  
D270,642 S \* 9/1983 Watts ..... D8/310  
4,479,738 A \* 10/1984 Kubnick ..... A61F 9/06  
2/10  
4,499,630 A \* 2/1985 Harris ..... F24C 3/124  
16/441  
5,003,632 A \* 4/1991 Claude ..... A62B 18/084  
128/201.24  
5,012,528 A \* 5/1991 Pernicka ..... A42B 3/04  
2/10  
D393,933 S \* 4/1998 Huh ..... D29/110  
D398,421 S 9/1998 Crafoord  
6,032,297 A 3/2000 Barthold et al.  
6,035,451 A 3/2000 Burns et al.  
6,154,881 A \* 12/2000 Lee ..... A61F 9/045  
2/9  
6,185,739 B1 2/2001 Verkic et al.  
6,260,197 B1 \* 7/2001 Hoogewind ..... A61F 9/061  
2/8.3  
6,264,392 B1 \* 7/2001 Wise ..... A61F 9/06  
16/342  
6,298,498 B1 10/2001 Burns et al.  
D467,489 S \* 12/2002 Rubinson ..... D8/310  
D489,492 S 5/2004 Wu  
D521,190 S \* 5/2006 Wu ..... D29/110  
D530,185 S \* 10/2006 Osiecki ..... D8/300  
7,120,939 B1 10/2006 Howard  
7,178,932 B1 2/2007 Buckman  
D557,128 S \* 12/2007 Sawdon ..... D8/382  
D584,003 S 12/2008 Juhlin  
D589,654 S \* 3/2009 Juhlin ..... D29/122  
7,534,005 B1 5/2009 Buckman  
D602,639 S 10/2009 Ho  
D635,721 S 4/2011 Cheng  
8,056,152 B2 11/2011 Brace  
D654,224 S 2/2012 Wu  
D654,634 S 2/2012 Wu  
8,214,920 B1 7/2012 Edgar  
D667,173 S 9/2012 Juhlin  
8,336,114 B1 \* 12/2012 Lee ..... A61F 9/06  
2/9  
D674,150 S 1/2013 Juhlin  
D674,153 S 1/2013 Daniels  
8,387,162 B2 3/2013 Huh  
8,584,265 B2 11/2013 Lilenthal et al.  
8,627,517 B2 1/2014 Ahlgren et al.  
8,826,464 B2 9/2014 Wu

8,990,963 B2 \* 3/2015 Matthews ..... A61F 9/061  
2/8.2  
D735,949 S 8/2015 Dion  
D735,951 S 8/2015 Birath  
9,155,923 B2 10/2015 Proctor  
D742,596 S 11/2015 Peng  
D743,629 S 11/2015 Peng  
D747,556 S 1/2016 Fujita  
D749,796 S 2/2016 Barmore  
2003/0135911 A1 7/2003 Wang-Lee  
2006/0080761 A1 \* 4/2006 Huh ..... A61F 9/06  
2/424  
2007/0220649 A1 9/2007 Huh  
2008/0060102 A1 \* 3/2008 Matthews ..... A61F 9/06  
2/8.2  
2009/0210989 A1 8/2009 Becker et al.  
2010/0229274 A1 9/2010 Ahlgren  
2011/0101890 A1 5/2011 Robinson  
2011/0219506 A1 9/2011 Uttrachi  
2011/0265790 A1 11/2011 Walker et al.  
2013/0152919 A1 6/2013 Billingsley et al.  
2015/0143669 A1 5/2015 Pereira et al.  
2016/0081856 A1 \* 3/2016 Hofer-Kraner ..... A61F 9/061  
2/8.3

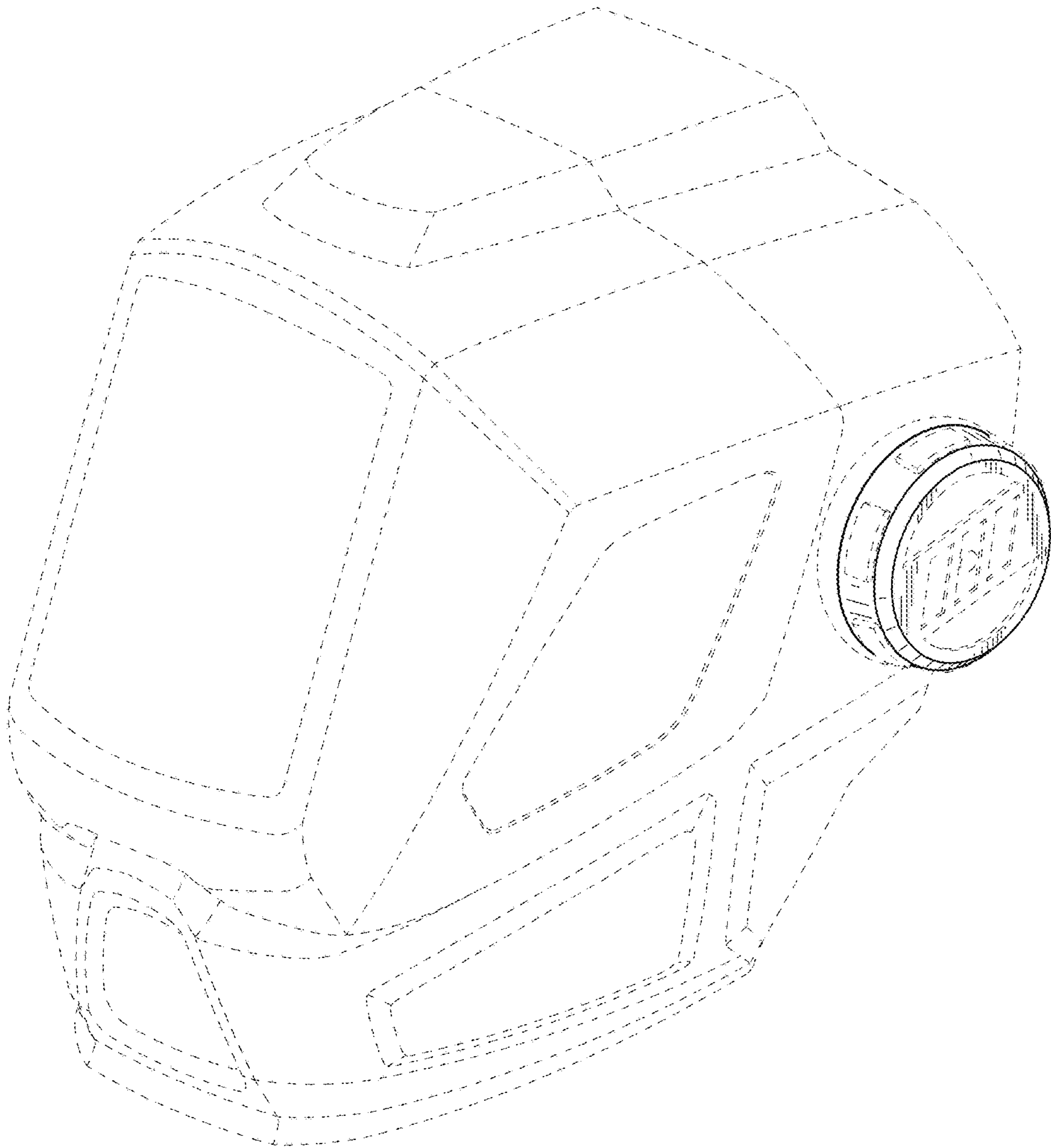
FOREIGN PATENT DOCUMENTS

EP 2 462 826 A2 6/2012  
WO 2009/048829 A1 4/2009  
WO 2009/048836 A1 4/2009

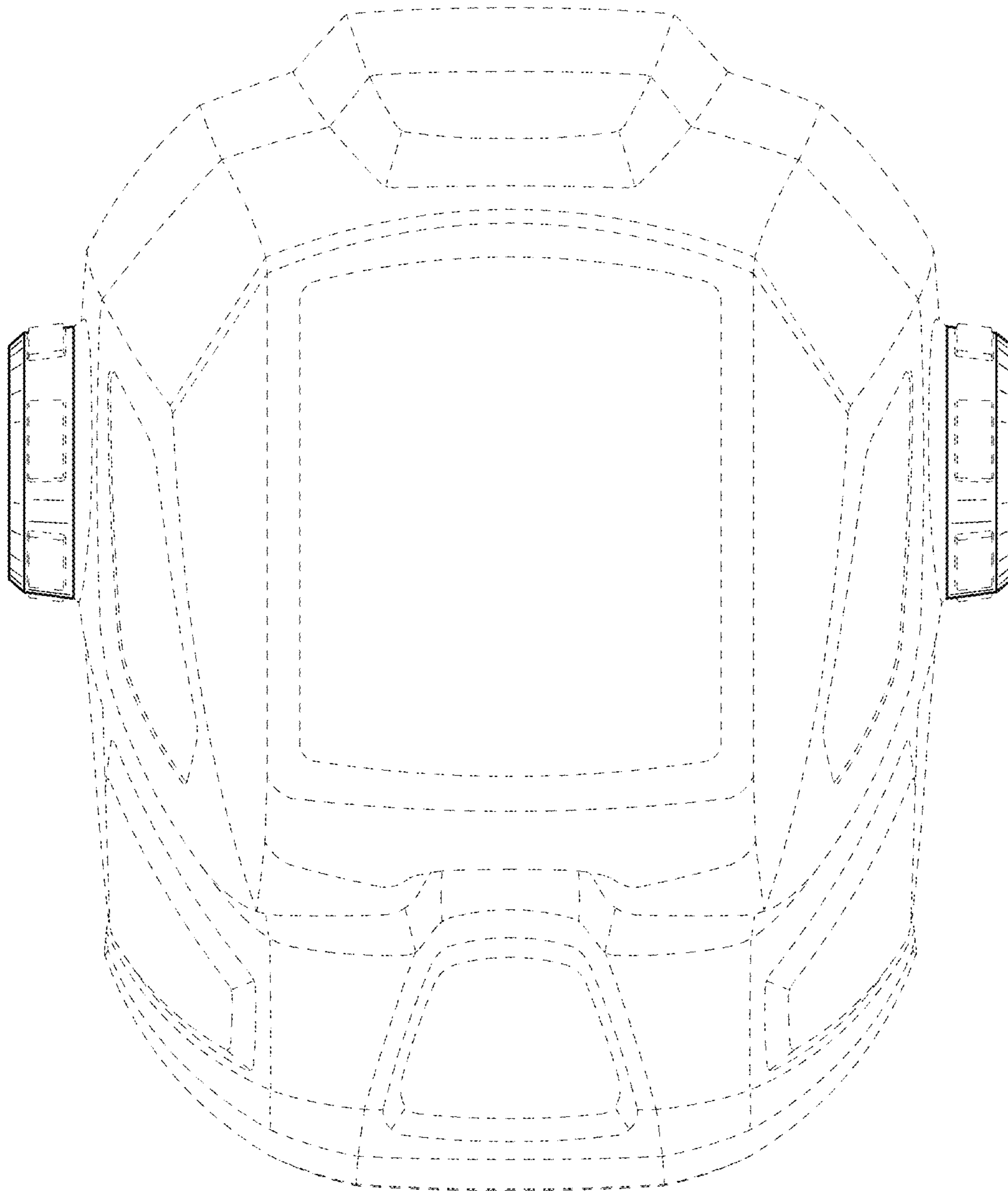
OTHER PUBLICATIONS

International Search Report and Written Opinion for PCT/US2015/035714 dated Oct. 8, 2015, 11 pages.  
International Search Report and Written Opinion for PCT/US2015/035713 dated Oct. 27, 2015, 17 pages.  
International Search Report and Written Opinion for PCT/US2015/065213 dated Mar. 16, 2016, 13 pages.  
Miller 9400i welding helmet with an integrated grind shield, published at least as early as Jun. 16, 2014, 1 page.  
Speedglas 9100FX welding helmet with an integrated grind shield, published at least as early as Jun. 16, 2014, 1 page.  
Speedglas 9002X Flexview welding helmet with an integrated grind shield, published at least as early as Jun. 16, 2014, 1 page.  
Miller 9400i PAPR welding helmet with powered air purifying system, belt mounted blower with breathing tube connecting to manifold inside head assembly, published at least as early as Jun. 16, 2014, 1 page.  
Speedglas 9100X Air Adflo welding helmet with airflow delivery mechanism, published at least as early as Jun. 16, 2014, 1 page.  
Speedglas 9100FX Air Adflo welding helmet with airflow delivery mechanism, published at least as early as Jun. 16, 2014, 1 page.  
Miller headgear for a welding helmet, published at least as early as Jun. 16, 2014, 1 page.  
Speedglas headgear for a welding helmet, published at least as early as Jun. 16, 2014, 1 page.

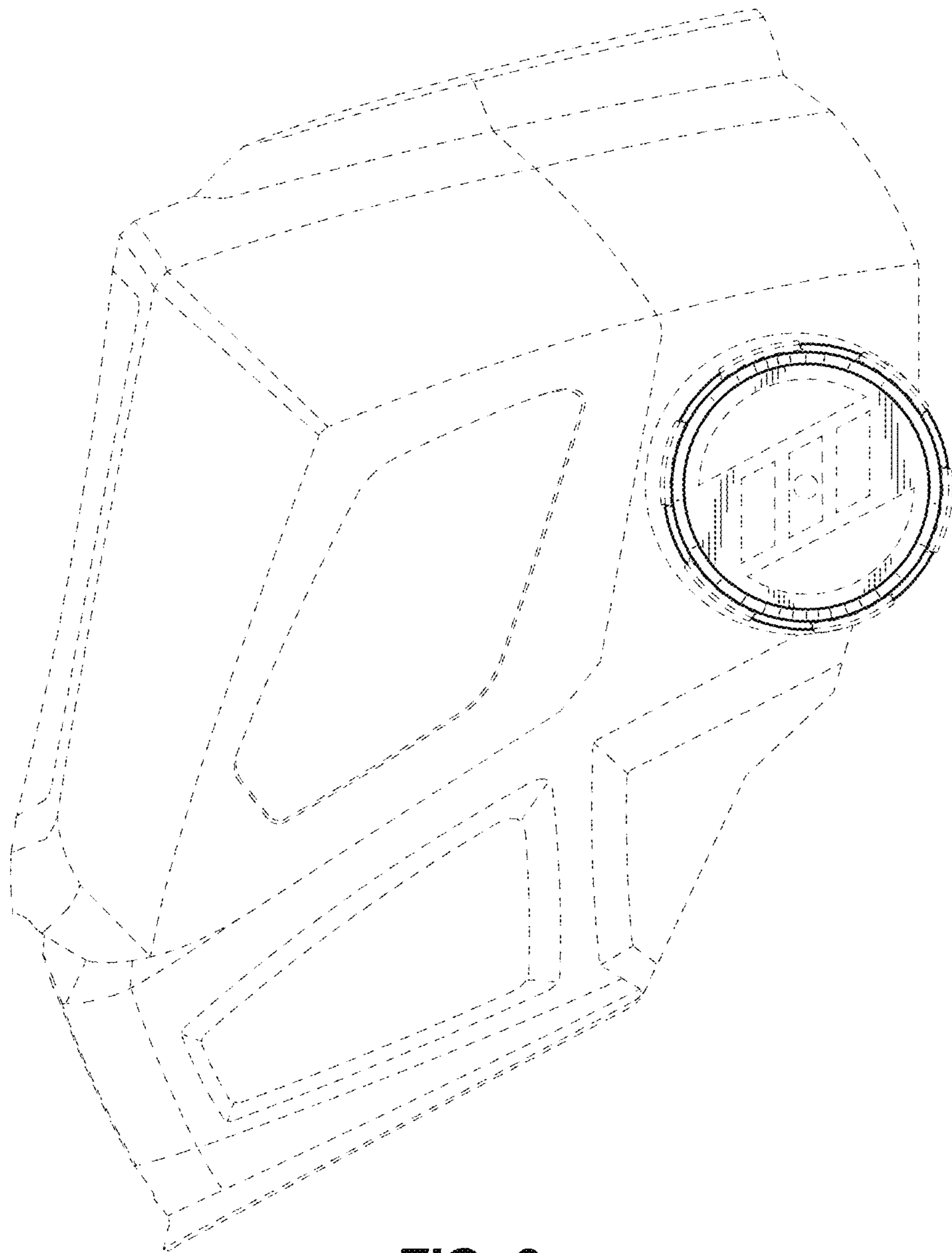
\* cited by examiner



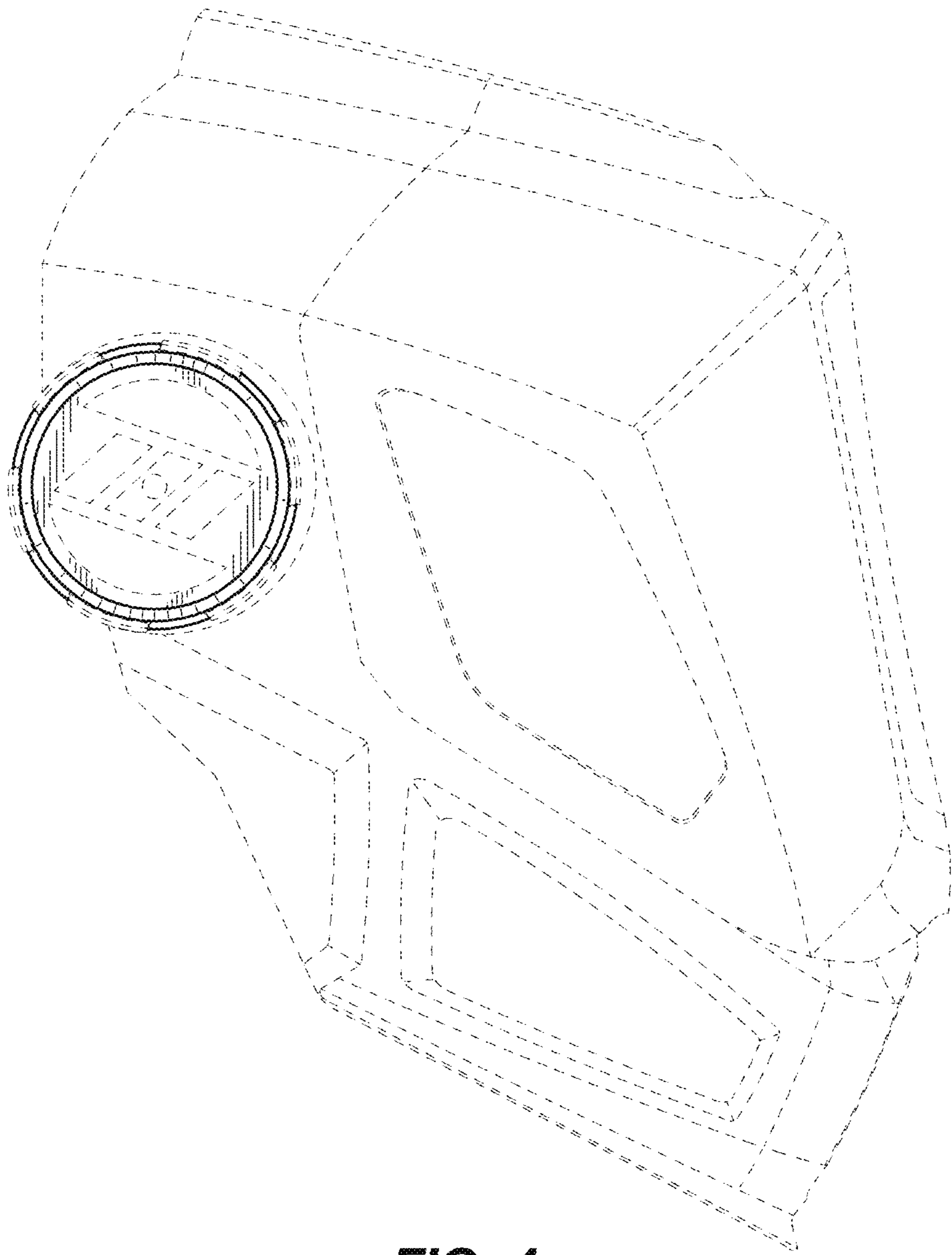
**FIG. 1**



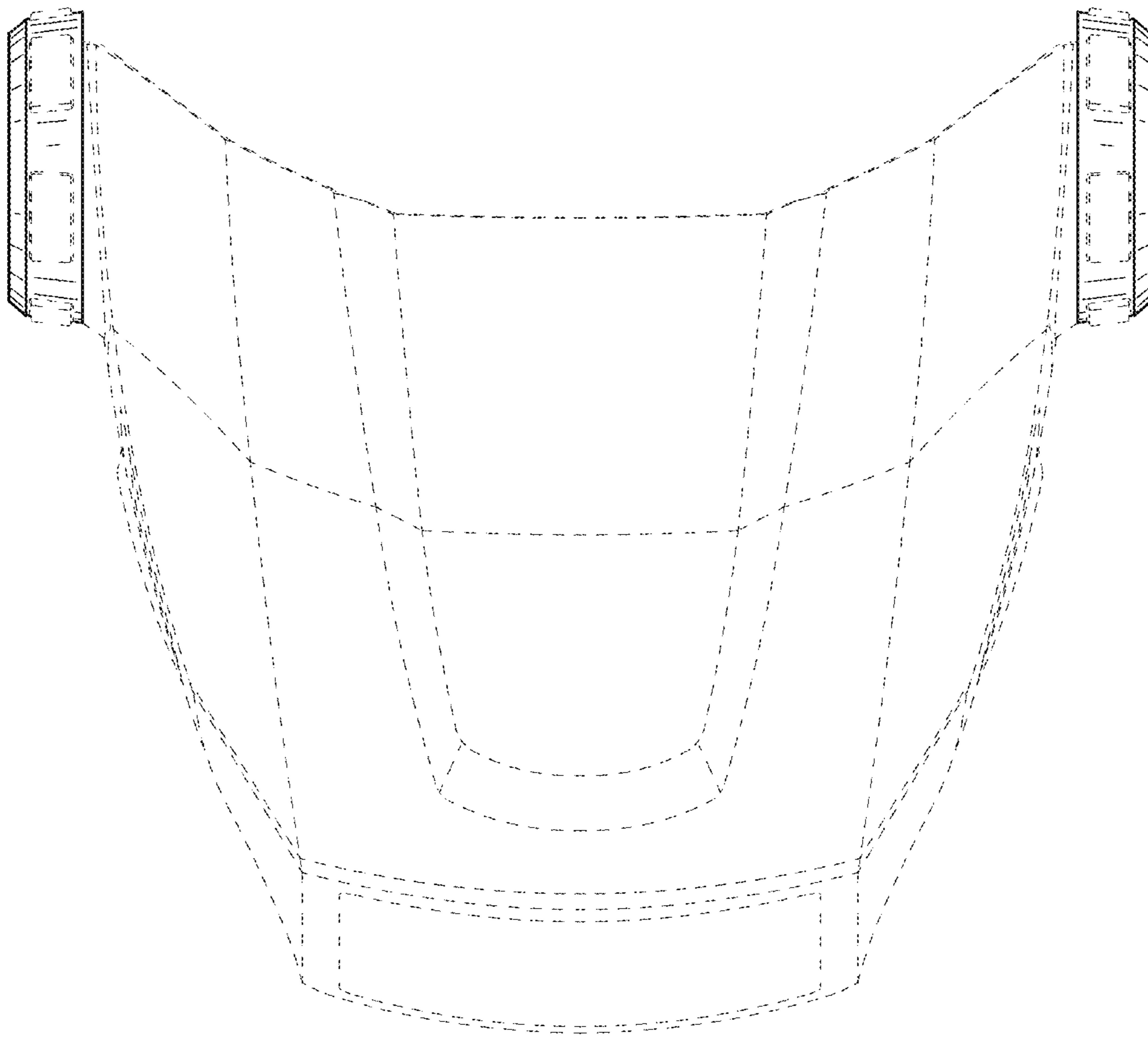
**FIG. 2**



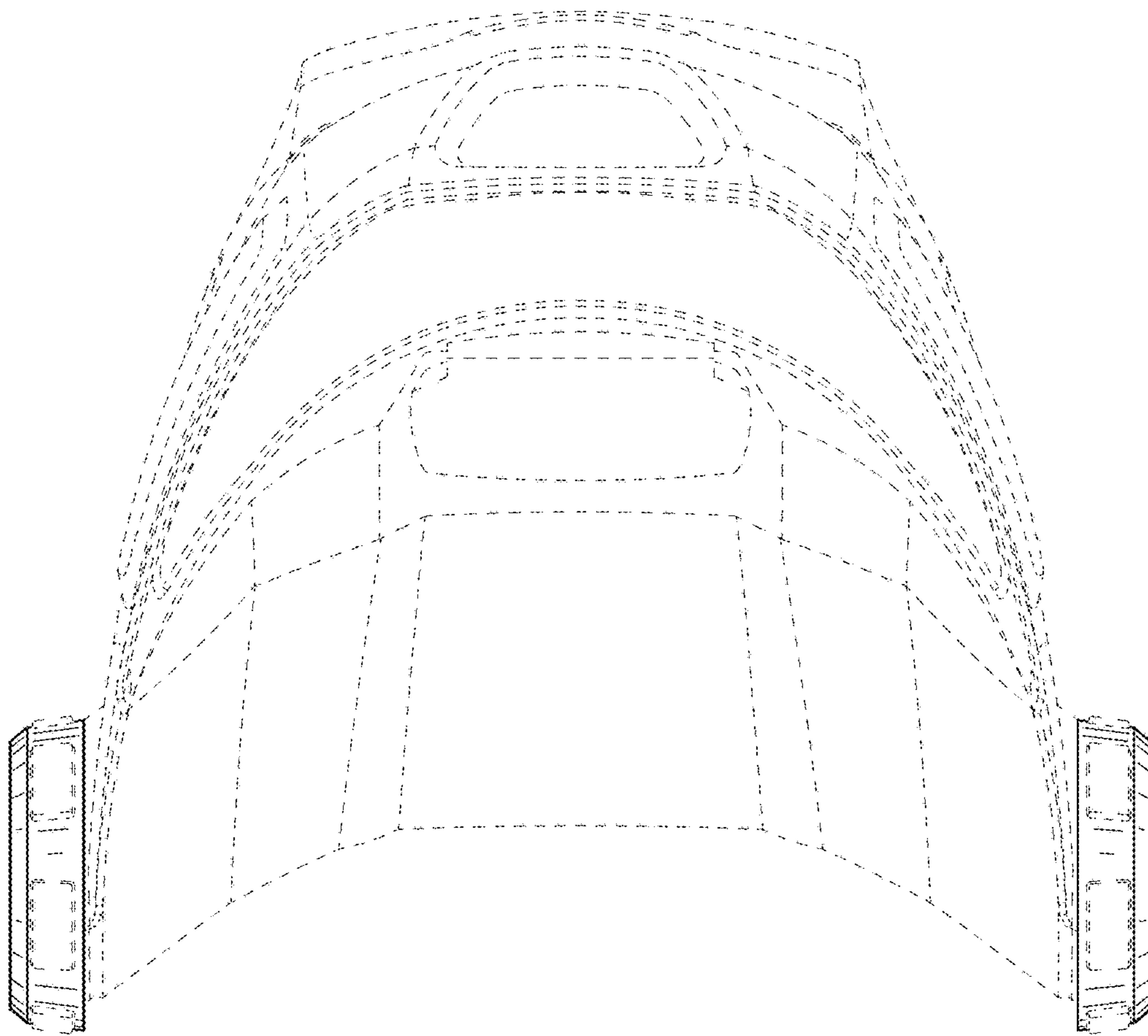
**FIG. 3**



**FIG. 4**



**FIG. 5**



**FIG. 6**