



US00D770689S

(12) **United States Design Patent** (10) **Patent No.:** **US D770,689 S**
Patel et al. (45) **Date of Patent:** **** Nov. 1, 2016**

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

4,499,630 A 2/1985 Harris
5,003,632 A 4/1991 Claude
5,012,528 A 5/1991 Pernicka
D393,933 S * 4/1998 Huh D29/110
(Continued)

FOREIGN PATENT DOCUMENTS

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

OTHER PUBLICATIONS

International Search Report and Written Opinion for PCT/US2015/065213 dated Mar. 16, 2016, 13 pages.
(Continued)

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

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

(21) Appl. No.: **29/526,689**

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

(51) **LOC (10) Cl.** **29-02**

(52) **U.S. Cl.**
USPC **D29/110**

(58) **Field of Classification Search**
USPC D29/102-110, 112, 122; D2/866
CPC A42B 3/18; A42B 3/22; A42B 1/06; A42B 1/24; A42B 1/08; A62B 18/08; A62B 18/00; A62B 18/24; A62B 18/045; A61F 9/06; A61F 9/068; A61F 9/025
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,413,972 A 12/1968 Depping
3,430,263 A 3/1969 Newcomb
4,109,320 A 8/1978 Anderson
4,293,757 A 10/1981 Niemi
D270,642 S 9/1983 Watts
4,479,738 A 10/1984 Kubnick

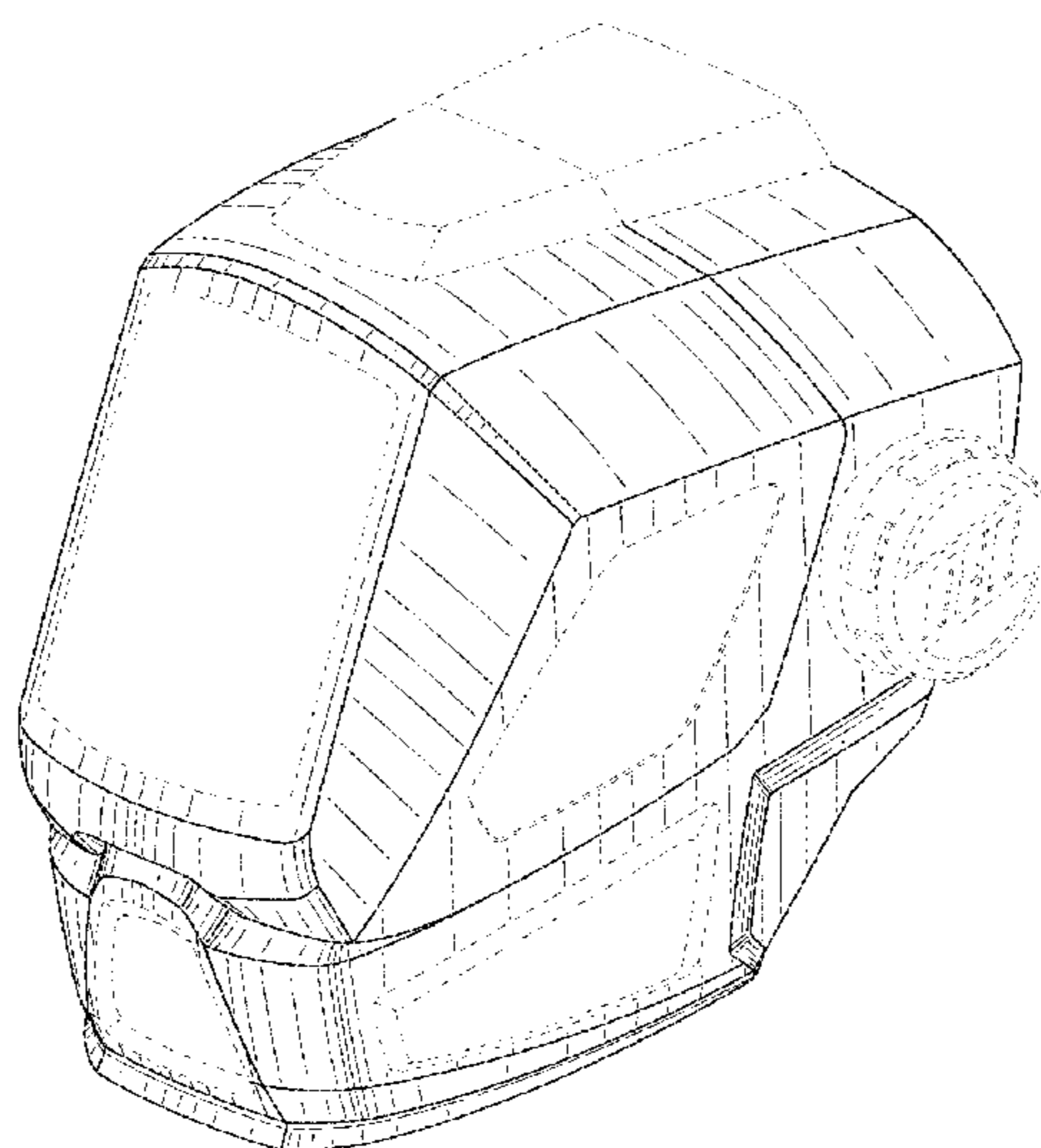
Primary Examiner — Robert Delehanty
(74) *Attorney, Agent, or Firm* — Klintworth & Rozenblat IP LLC

(57) **CLAIM**
We claim the ornamental design for a protective helmet, as shown and described.

DESCRIPTION

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. 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; and, FIG. 5 is a top 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.

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

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
 6,185,739 B1 2/2001 Verkie et al.
 6,260,197 B1 7/2001 Hoogewind
 6,264,392 B1 7/2001 Wise
 6,298,498 B1 10/2001 Burns et al.
 D467,489 S 12/2002 Rubinson
 D489,492 S * 5/2004 Wu D29/110
 D521,190 S 5/2006 Wu
 D530,185 S 10/2006 Osiecki
 7,120,939 B1 10/2006 Howard
 7,178,932 B1 2/2007 Buckman
 D557,128 S 12/2007 Sawdon
 D584,003 S 12/2008 Juhlin
 D589,654 S 3/2009 Juhlin
 7,534,005 B1 5/2009 Buckman
 D602,639 S 10/2009 Ho
 D635,721 S * 4/2011 Cheng D29/110
 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
 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
 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
 2007/0220649 A1 9/2007 Huh

2008/0060102 A1 3/2008 Matthews
 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

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/US2015/035713 dated Oct. 27, 2015, 17 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.
 International Search Report and Written Opinion for PCT/US2015/033054 dated Aug. 31, 2015, 12 pages.
 International Search Report and Written Opinion for PCT/US2015/035714 dated Oct. 8, 2015, 11 pages.

* cited by examiner

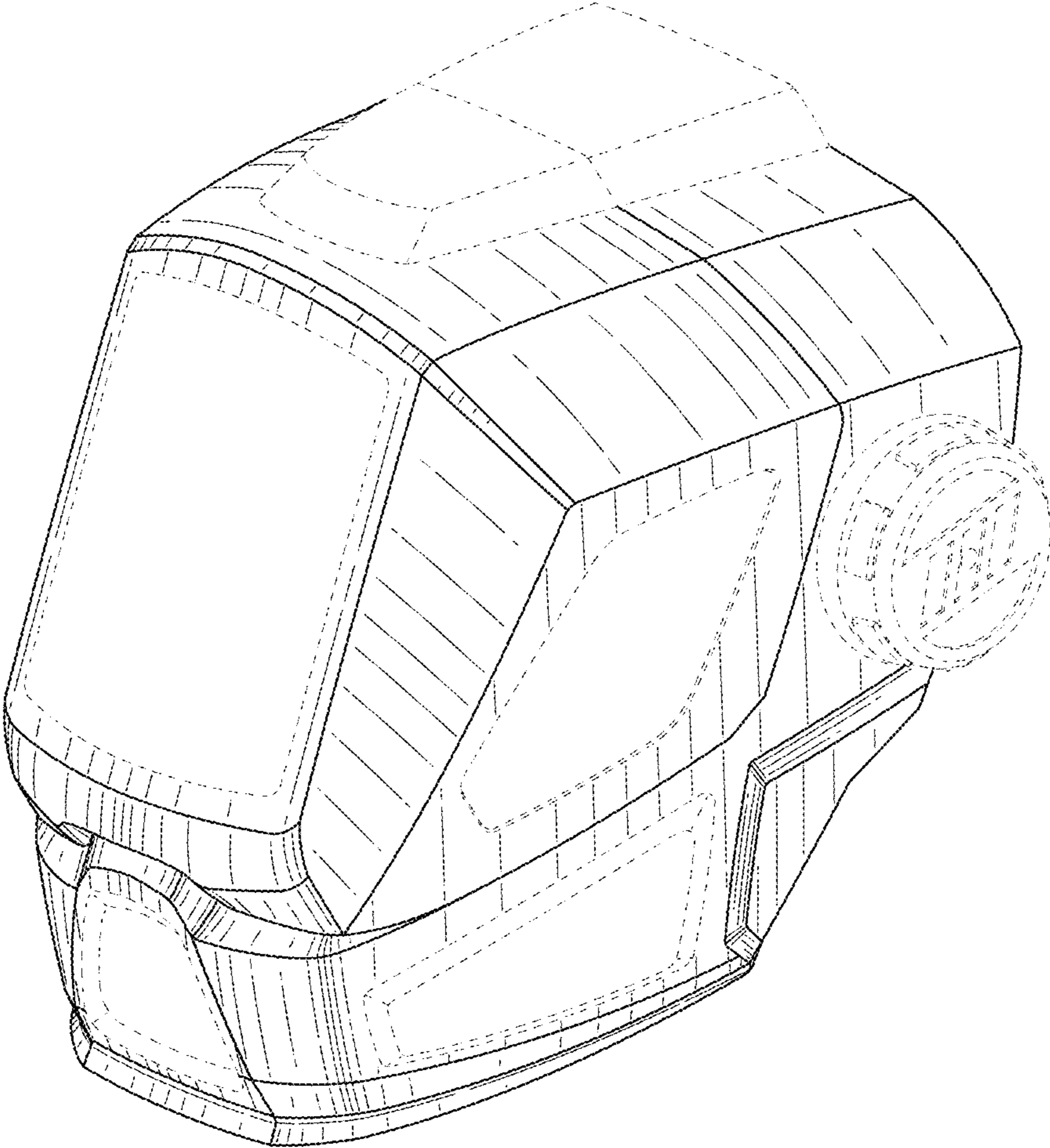


FIG. 1

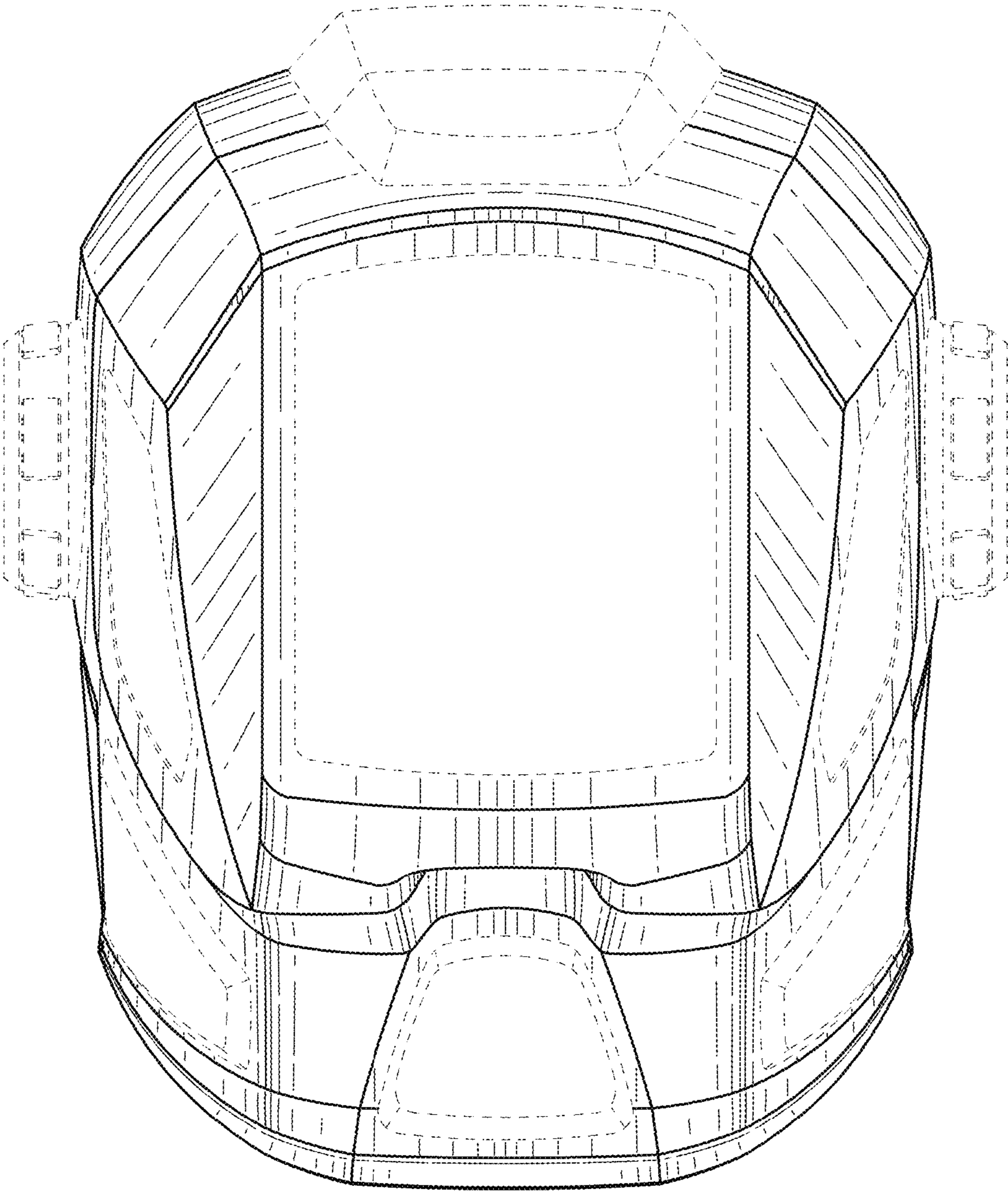


FIG. 2

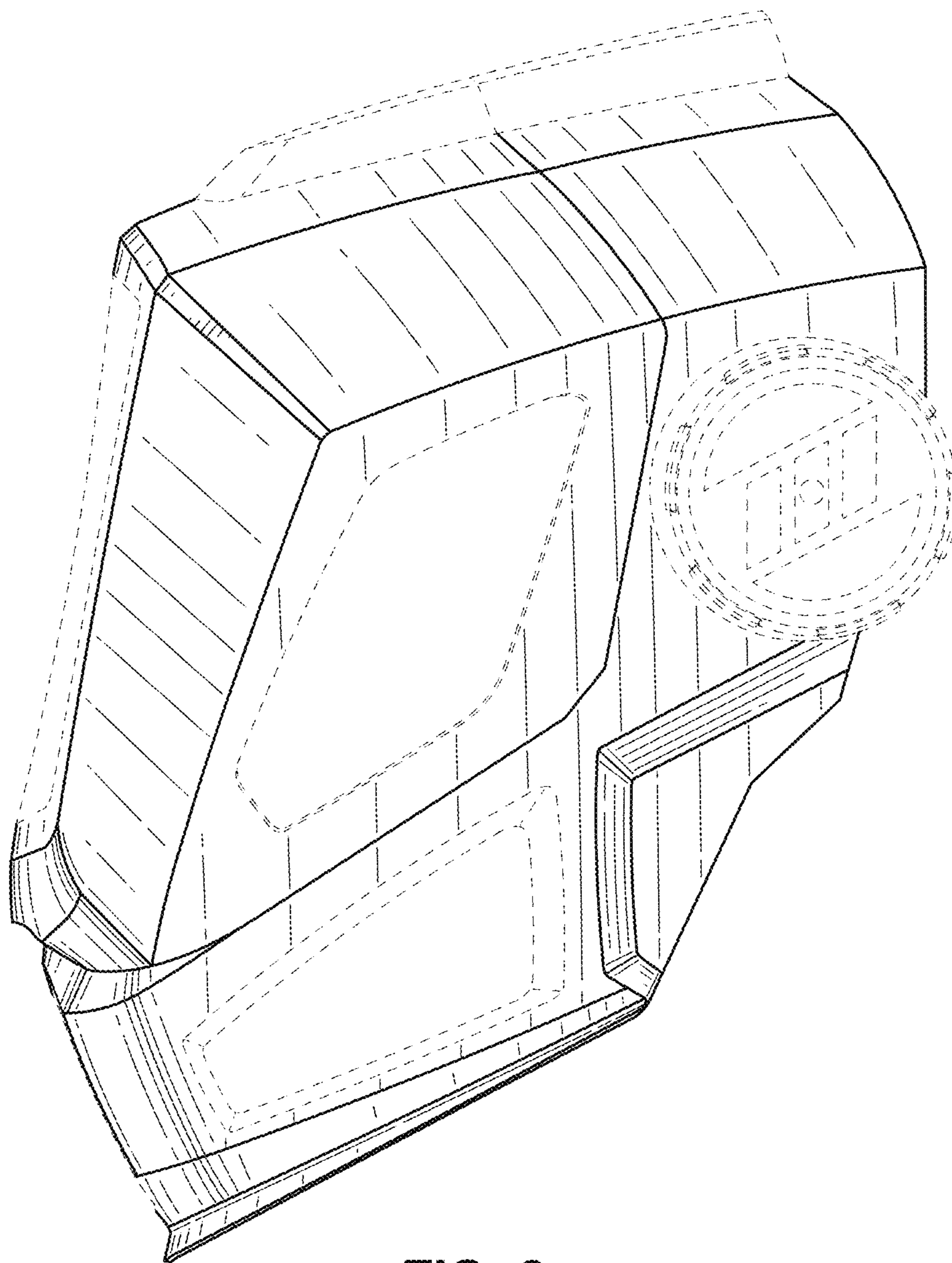


FIG. 3

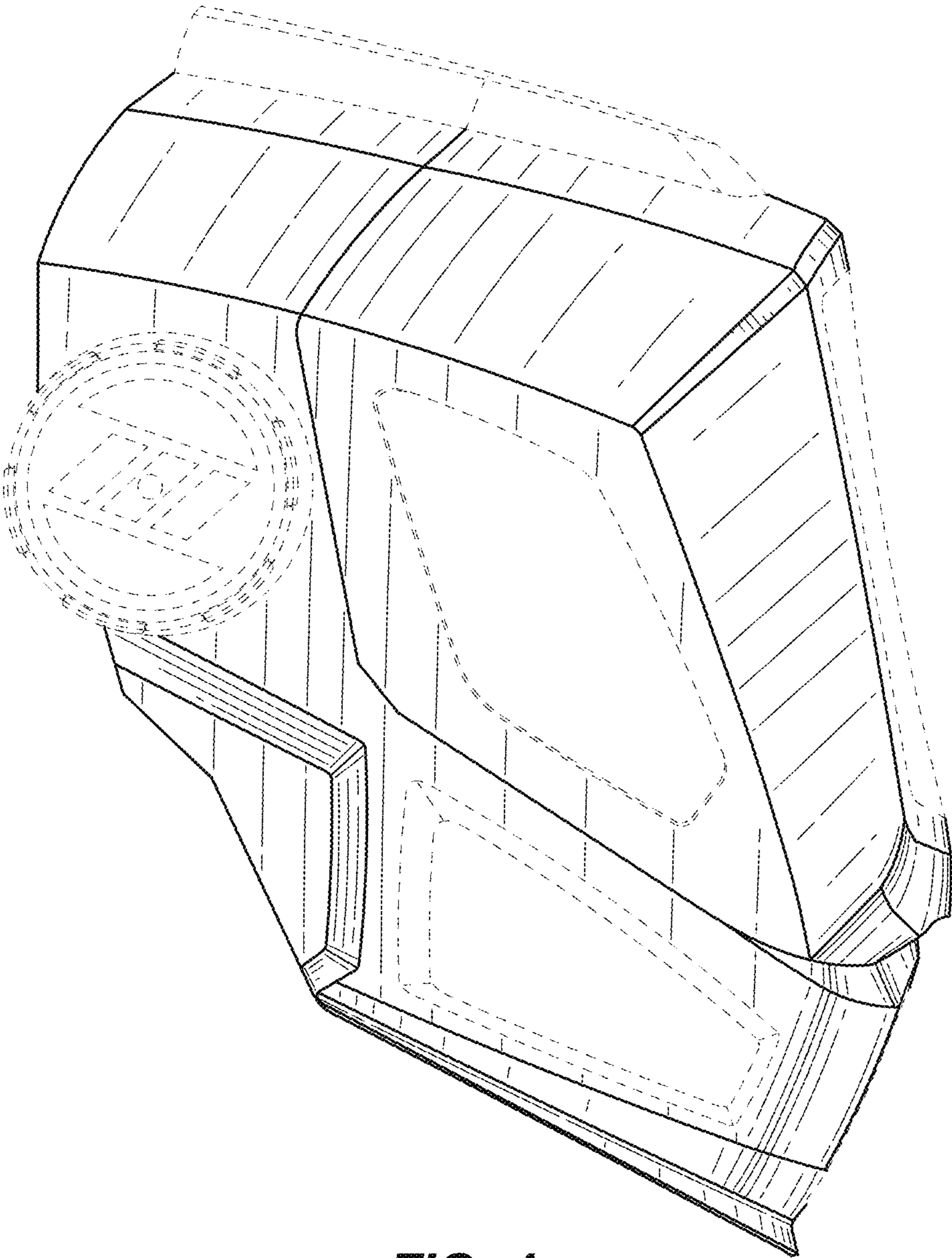


FIG. 4

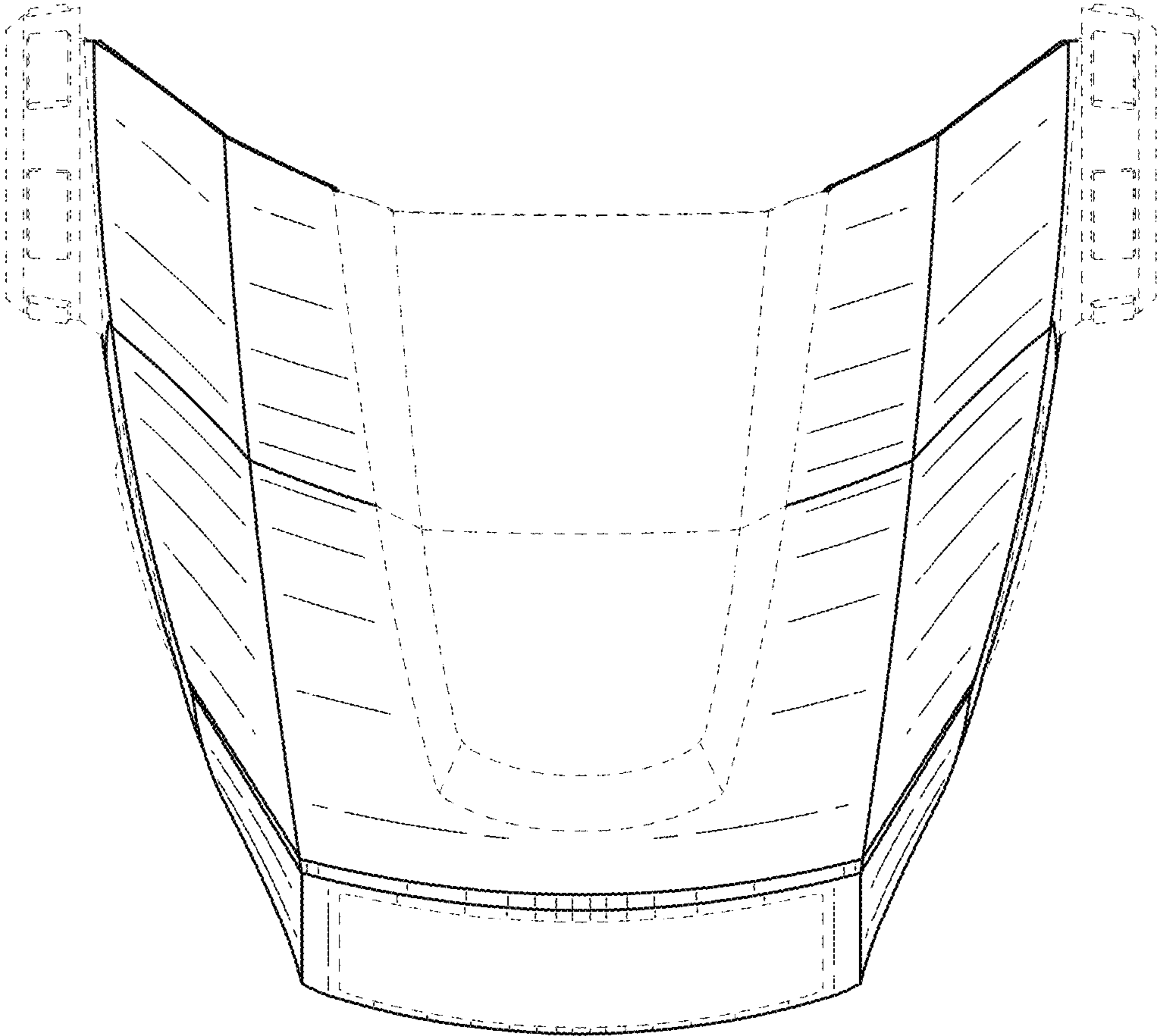


FIG. 5