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(12) **United States Design Patent** (10) **Patent No.:** **US D804,107 S**
Patel et al. (45) **Date of Patent:** **** Nov. 28, 2017**

(54) **PROTECTIVE HELMET**
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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
4,499,630 A 2/1985 Harris
(Continued)

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(21) Appl. No.: **29/591,191**
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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, 11 pages.
(Continued)

Related U.S. Application Data

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(52) **U.S. Cl.**
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See application file for complete search history.

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(57) **CLAIM**

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

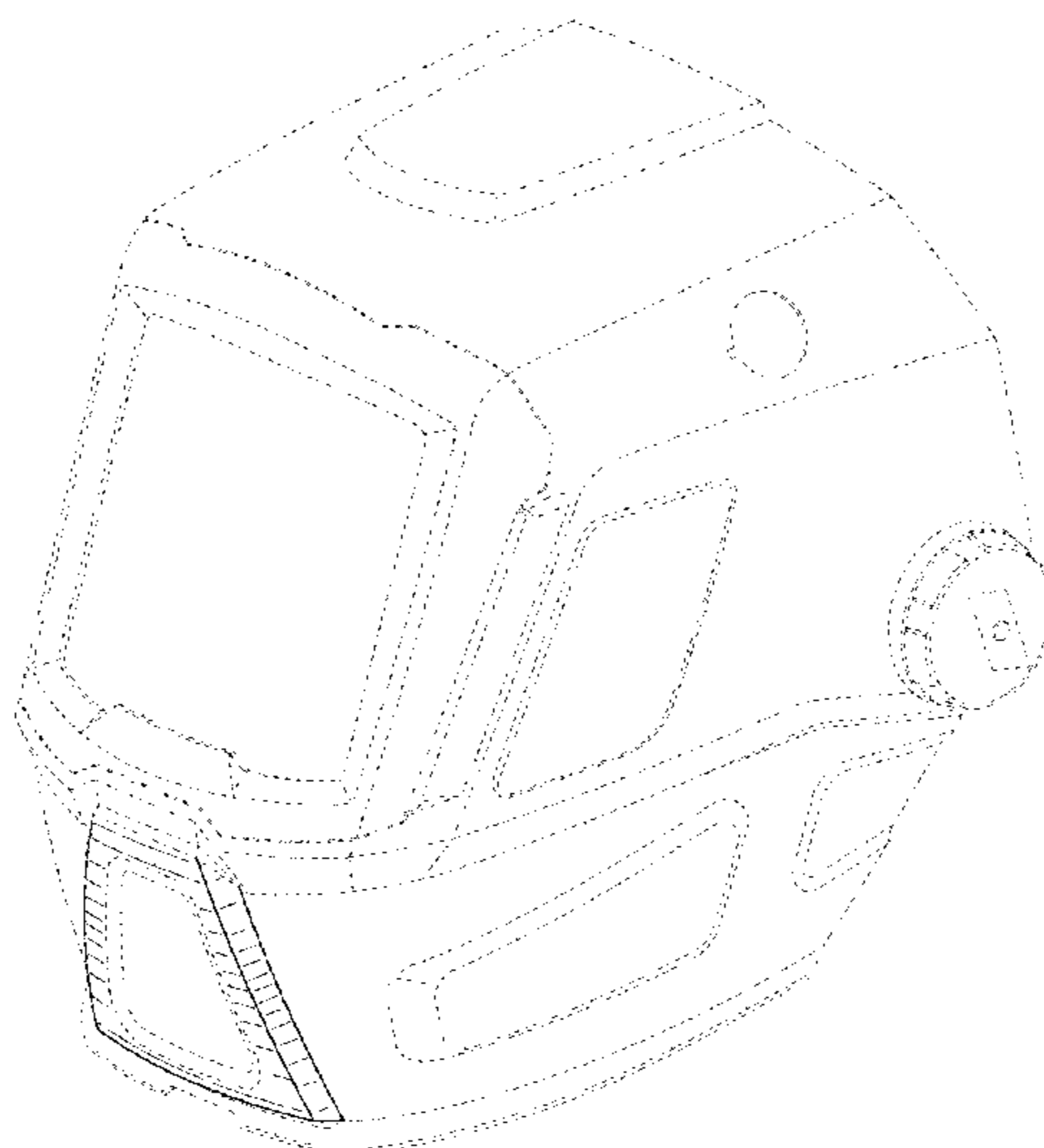
DESCRIPTION

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 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.

(56) **References Cited**
U.S. PATENT DOCUMENTS

1,601,830 A 10/1926 Huntsman
2,169,745 A 8/1939 Shipman
2,487,848 A 11/1949 Bowers
2,658,200 A 11/1953 Bowers, Sr.
2,700,158 A 1/1955 Larsen
3,413,972 A 12/1968 Depping
3,430,263 A 3/1969 Newcomb
3,696,442 A 10/1972 Amundsen
3,881,478 A 5/1975 Rosendahl

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

4,853,973 A 8/1989 Boochard
D316,020 S 4/1991 Fushiya
5,003,632 A 4/1991 Claude
5,012,528 A 5/1991 Pernicka
5,040,528 A 8/1991 O'Neill
D329,590 S 9/1992 Chapman
5,412,811 A 5/1995 Hildenbrand
D365,666 S 12/1995 Gumpp
D393,933 S 4/1998 Huh
D398,421 S 9/1998 Crafoord
D421,116 S 2/2000 Mattila
6,032,297 A 3/2000 Barthold et al.
6,035,451 A 3/2000 Burns et al.
6,055,983 A 5/2000 Metzger
D433,751 S 11/2000 Reischel
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
D449,103 S 10/2001 Legare
6,298,498 B1 10/2001 Burns et al.
6,367,085 B1 4/2002 Berg
D465,568 S 11/2002 Petherbridge
D467,489 S 12/2002 Rubinson
D489,492 S 5/2004 Wu
D492,559 S 7/2004 Itano
6,973,676 B1 12/2005 Simpson
D520,856 S 5/2006 Osiecki
D520,859 S 5/2006 Osiecki
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
D543,828 S 6/2007 Strutin-Belinoff
D557,128 S 12/2007 Sawdon
7,441,282 B2 10/2008 Heine
D584,003 S 12/2008 Juhlin
D589,654 S 3/2009 Juhlin
D589,776 S 4/2009 Camp
D590,232 S 4/2009 Demers
7,534,005 B1 5/2009 Buckman
D600,094 S 9/2009 Hwang
D602,639 S 10/2009 Ho
D617,459 S 6/2010 Bogue
D626,963 S 11/2010 Kim
D632,944 S 2/2011 Kang
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 et al.
8,336,114 B1 12/2012 Lee
D674,150 S 1/2013 Juhlin et al.
D674,153 S 1/2013 Daniels
D676,551 S 2/2013 Desai
8,381,312 B2 2/2013 Seo
8,387,162 B2 3/2013 Huh
D684,252 S 6/2013 Okada
8,584,265 B2 11/2013 Lilenthal et al.
8,627,517 B2 1/2014 Ahlgren et al.
D710,546 S 8/2014 Wu
8,826,464 B2 9/2014 Wu

D722,259 S 2/2015 Conner
8,990,963 B2 3/2015 Matthews
D735,949 S 8/2015 Dion
D735,951 S 8/2015 Birath
9,125,448 B2 9/2015 Klotz
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
9,427,040 B2 8/2016 Leyland
D767,829 S 9/2016 Wu
9,516,911 B2 12/2016 Happel
2003/0135911 A1 7/2003 Wang-Lee
2004/0179149 A1 9/2004 Wang-Lee
2006/0080761 A1 4/2006 Huh
2007/0113318 A1 5/2007 Weston
2007/0220649 A1 9/2007 Huh
2008/0060102 A1 3/2008 Matthews
2009/0210989 A1 8/2009 Becker et al.
2010/0050325 A1 3/2010 Wang-Lee
2010/0229274 A1 9/2010 Ahlgren
2010/0229286 A1 9/2010 Ahlgren
2010/0235971 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.
2014/0298557 A1 10/2014 Townsend, Jr.
2015/0143669 A1 5/2015 Pereira et al.
2016/0081856 A1 3/2016 Hofer-Kraner
2016/0360821 A1 12/2016 Benton

FOREIGN PATENT DOCUMENTS

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

OTHER PUBLICATIONS

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/US2015/035713 dated Oct. 27, 2015, 17 pages.
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.

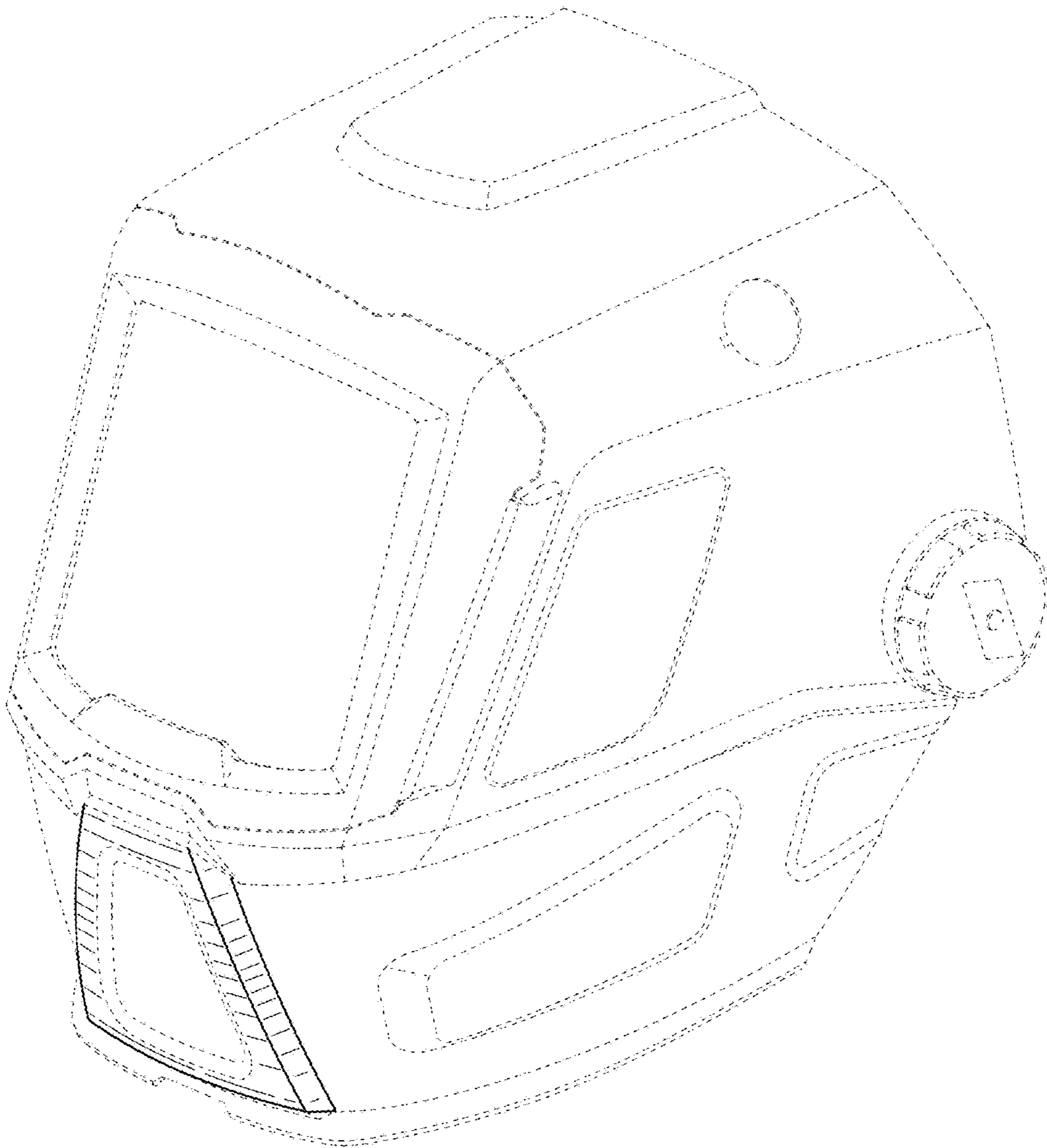


FIG. 1

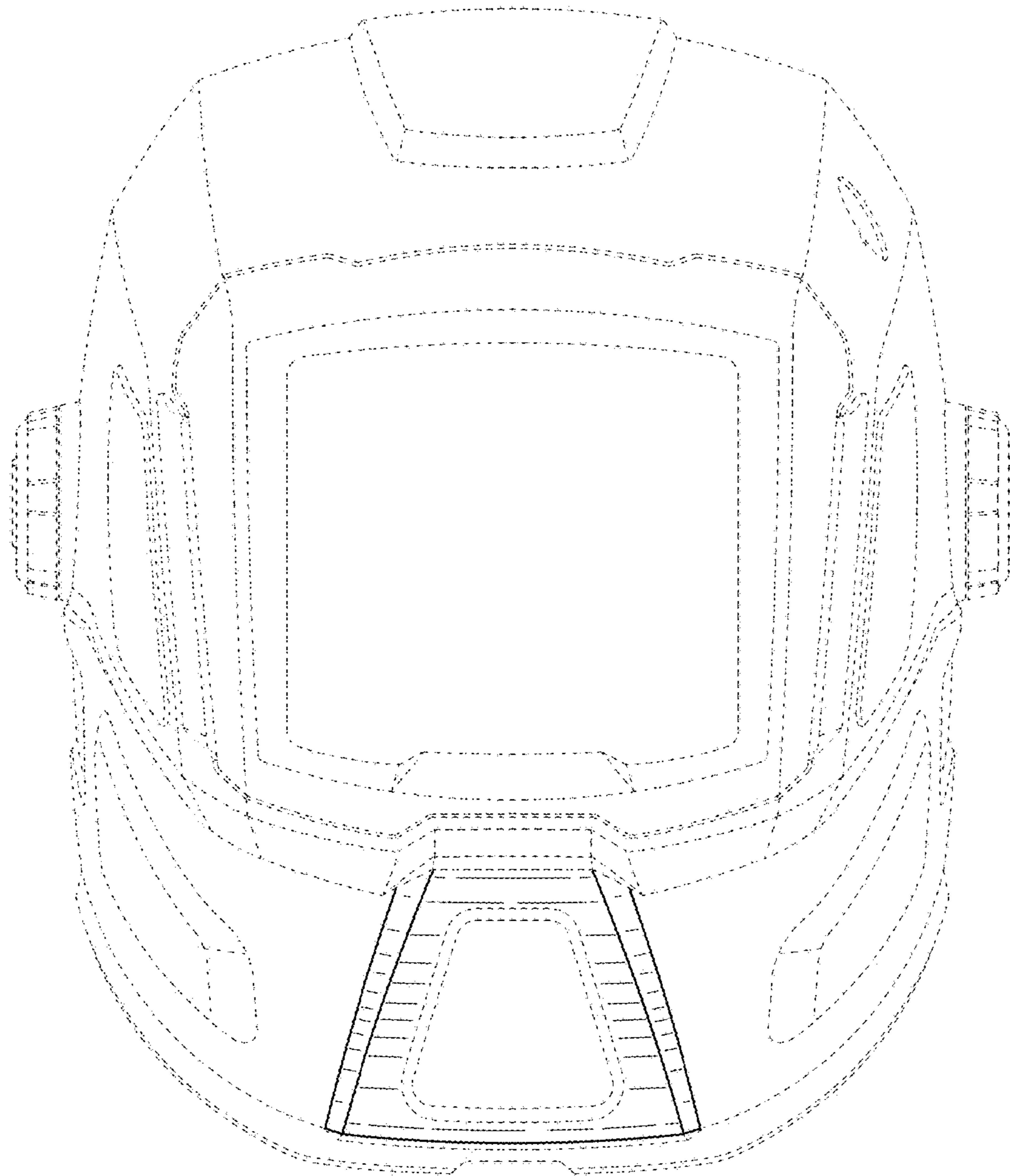


FIG. 2

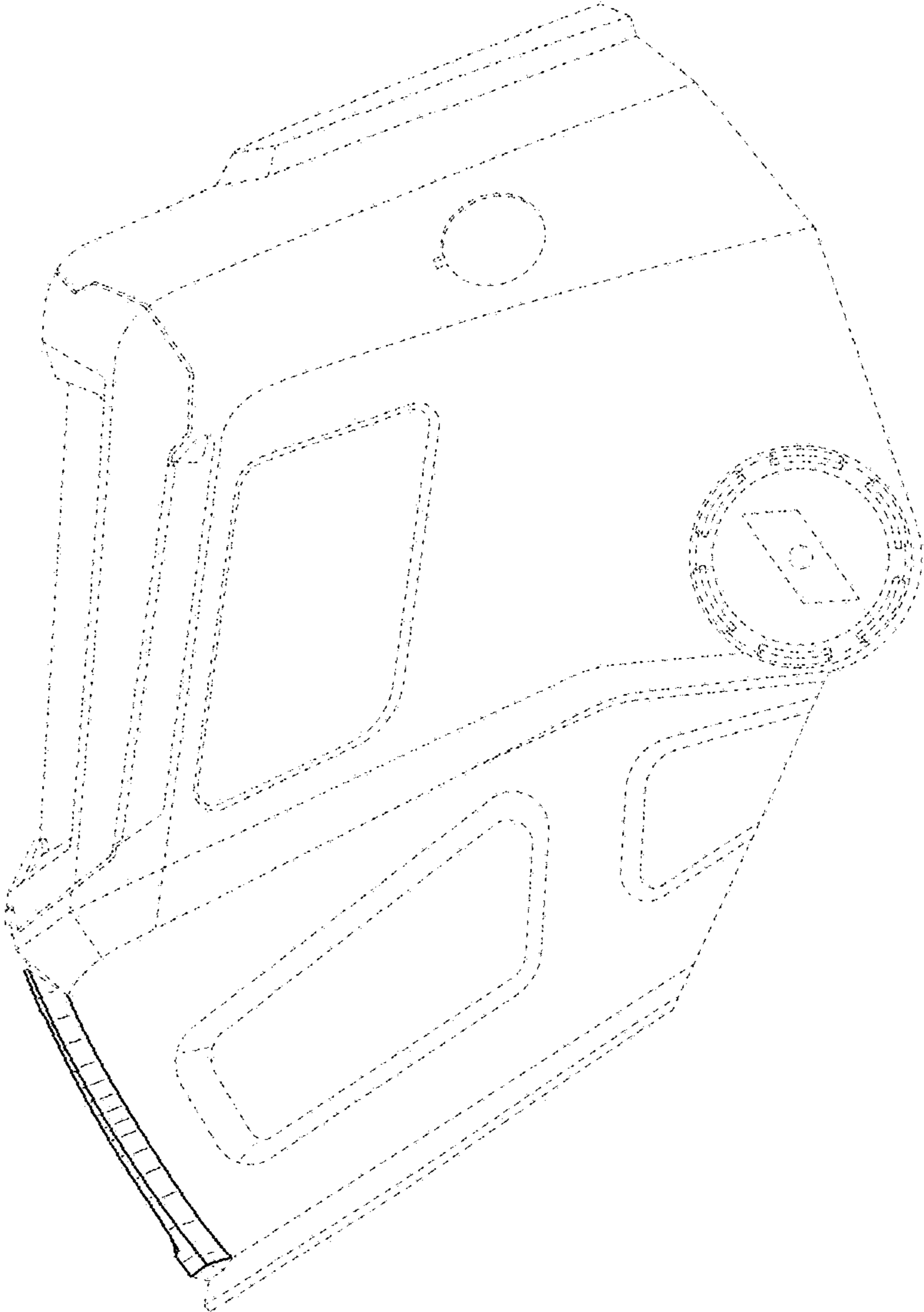


FIG. 3

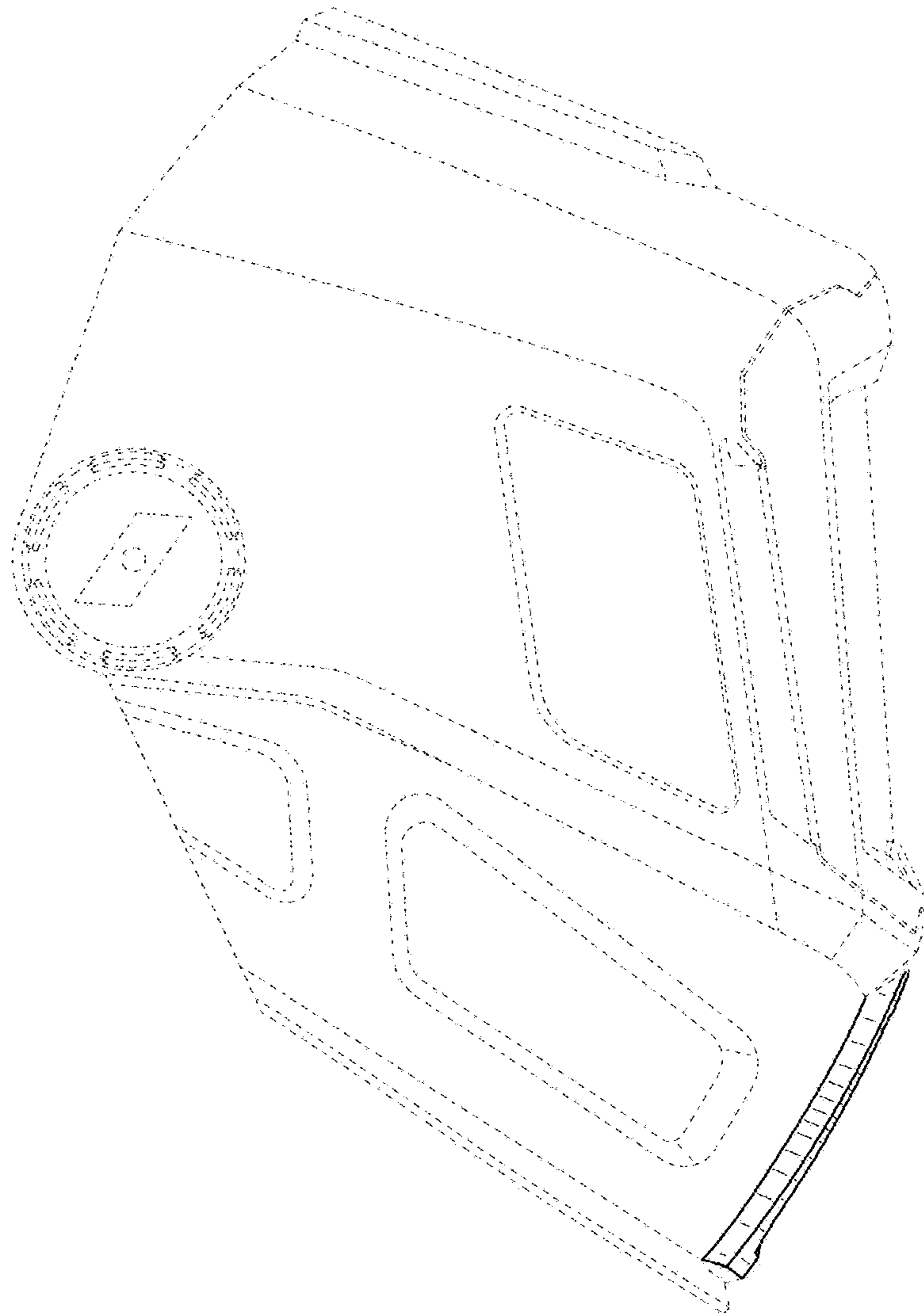


FIG. 4

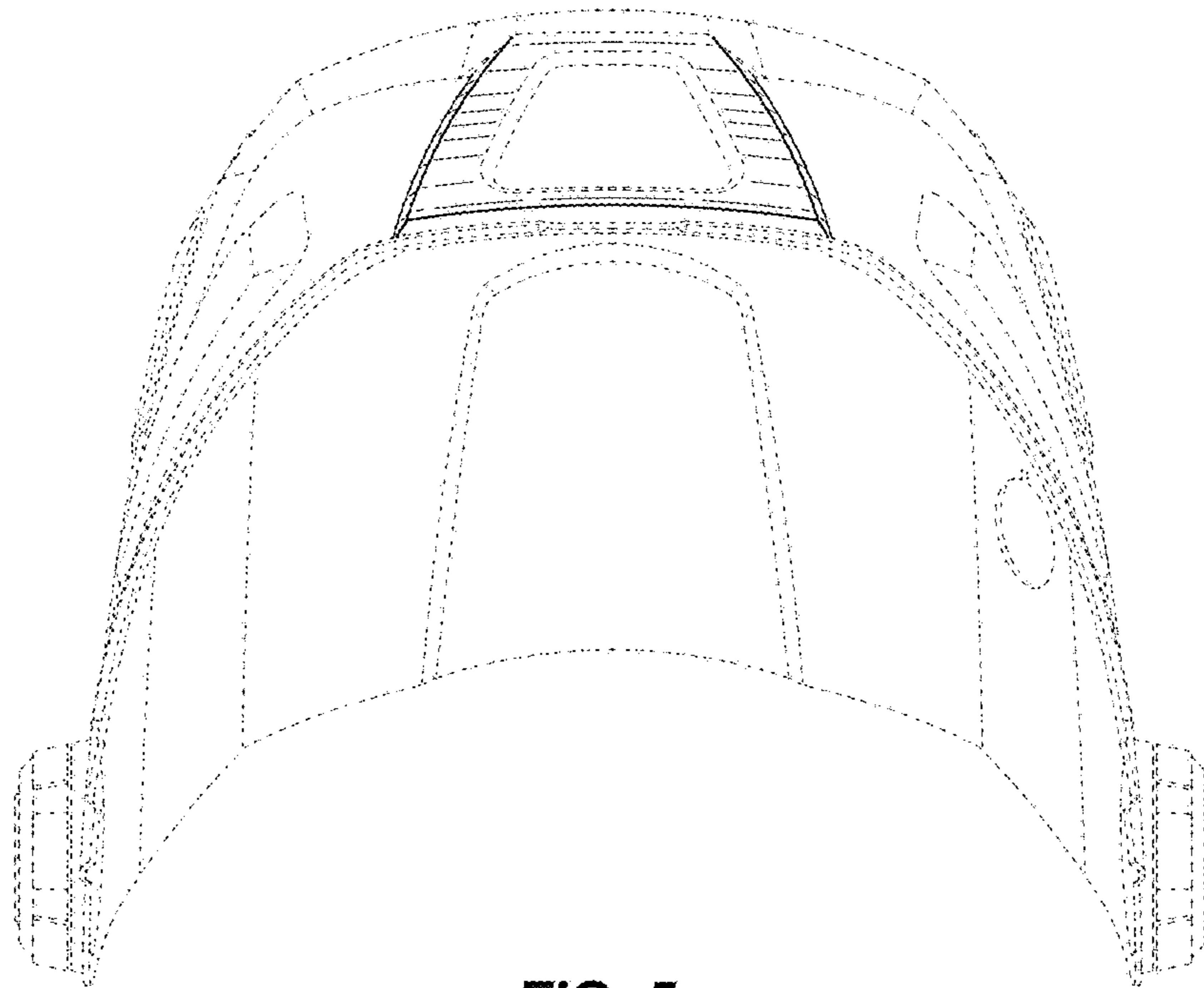


FIG. 5