



US00D998058S

(12) **United States Design Patent** (10) **Patent No.:** **US D998,058 S**
Allmendinger et al. (45) **Date of Patent:** **** Sep. 5, 2023**

(54) **MODEL VEHICLE SHOCK TOWER**

2,643,110 A 6/1953 Gregoire
2,776,147 A 1/1957 Bamford
2,913,253 A 11/1959 Taber

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(Continued)

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FOREIGN PATENT DOCUMENTS

CN 304904483 * 11/2018
DE 2137757 B2 2/1973

(Continued)

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OTHER PUBLICATIONS

(**) Term: **15 Years**

Shock tower rear 6061-T6 aluminum, First Date Available: Unknown, Image retrieved on: May 31, 2023, <<https://traxxas.com/products/parts/9538A>>.*

(Continued)

(21) Appl. No.: **29/815,742**

(22) Filed: **Nov. 16, 2021**

(51) **LOC (14) Cl.** **21-01**

(52) **U.S. Cl.**
USPC **D21/562**

(58) **Field of Classification Search**
USPC D21/495, 533, 548, 549, 550, 561, 562;
D12/159, 160
CPC A63H 17/26; A63H 17/262; A63H 17/264;
A63H 17/266; A63H 17/36; A63H 17/00;
A63H 17/002; B60G 13/003; B60G
2204/128; B62D 25/00; B62D 35/00
See application file for complete search history.

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(57) **CLAIM**

We claim the ornamental design for a model vehicle shock tower, as shown and described.

DESCRIPTION

FIG. 1 is a top, front, left side perspective view of a model vehicle shock tower showing our new design; FIG. 2 is a front elevation view thereof; FIG. 3 is a rear elevation view thereof; FIG. 4 is a right side elevation view thereof; FIG. 5 is a left side elevation view thereof; FIG. 6 is a top plan view thereof; FIG. 7 is a bottom plan view thereof; and, FIG. 8 is a bottom, rear, right side perspective view of the model vehicle shock tower.

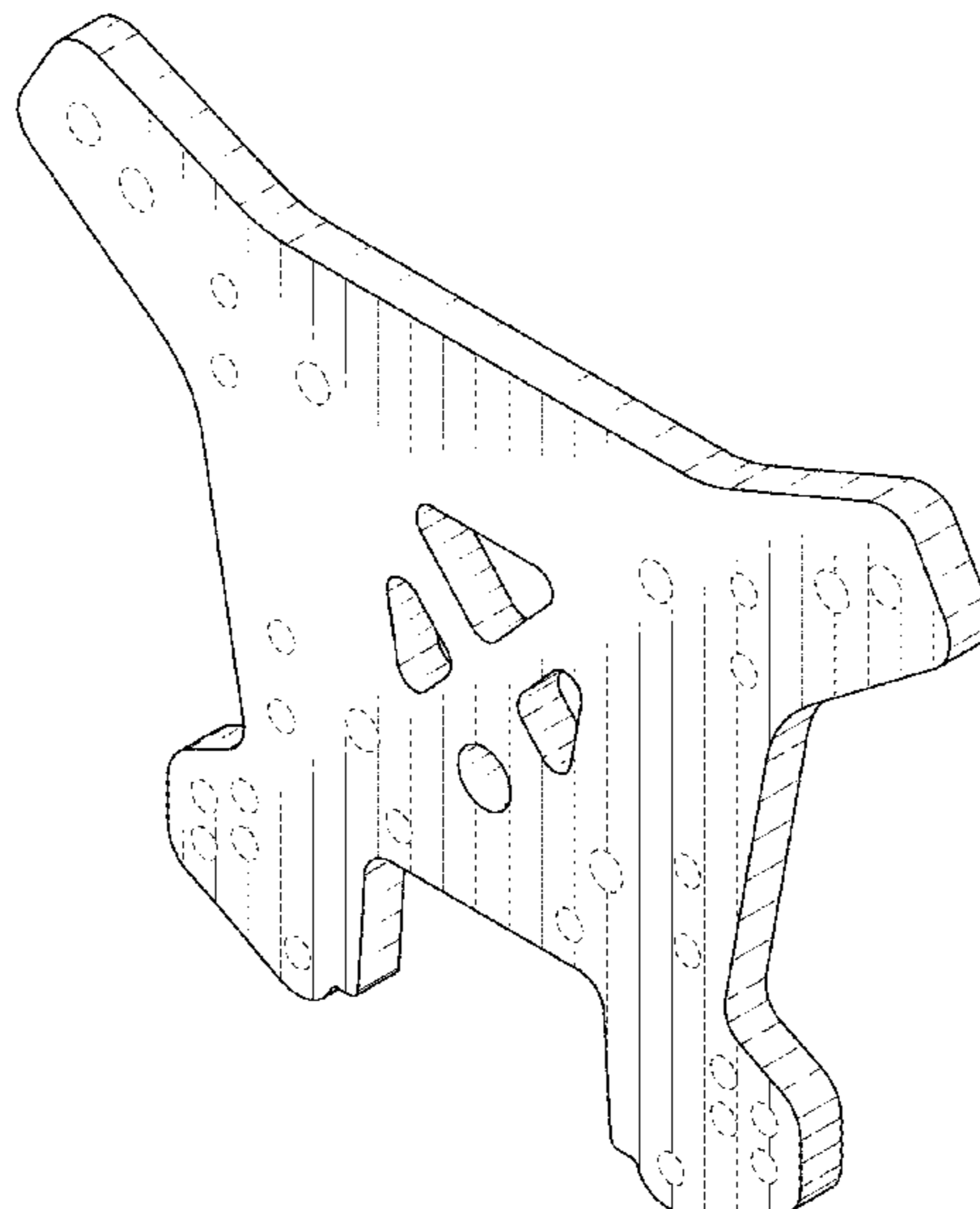
In the drawings, the broken lines illustrate portions of the model vehicle shock tower that form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

1,135,577 A 4/1915 Hague
1,647,438 A 11/1927 De Ram
1,695,379 A 12/1928 Keck
1,998,477 A 4/1935 Wikander
2,123,681 A 7/1938 Willgoos
2,126,085 A 8/1938 Balz
2,131,661 A 9/1938 Heyermans et al.
2,186,065 A 1/1940 Fischer
2,219,361 A 10/1940 Haberstump
2,580,559 A 1/1952 Kolbe

1 Claim, 5 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

2,931,663 A 4/1960 Ferand
 2,992,014 A 7/1961 Muller
 3,177,004 A 4/1965 Schmidt
 3,448,991 A 6/1969 Leggett
 3,545,125 A 12/1970 Okuma
 3,591,198 A 7/1971 Brando
 3,632,127 A 1/1972 Grosseau
 3,671,694 A 6/1972 Masuda
 3,721,455 A 3/1973 Blanton
 3,727,938 A 4/1973 Goodbary et al.
 3,738,631 A 6/1973 Haley
 3,787,073 A 1/1974 Lievore
 D262,959 S 2/1982 Cowan
 4,470,611 A 9/1984 Dunphily et al.
 D277,952 S 3/1985 Nakano et al.
 4,534,575 A 8/1985 Grove et al.
 D281,772 S 12/1985 Heidman et al.
 D295,769 S 5/1988 Olsen
 4,786,075 A 11/1988 Takahashi
 D304,221 S 10/1989 Poulsen
 4,881,752 A 11/1989 Tanaka
 4,955,634 A 9/1990 Smith
 5,071,384 A 12/1991 Poulsen
 5,080,389 A 1/1992 Kawano et al.
 5,108,126 A 4/1992 Banse
 D337,555 S 7/1993 McNab et al.
 D341,170 S 11/1993 Olsen
 5,536,035 A 7/1996 Bautz et al.
 5,682,489 A 10/1997 Harrow et al.
 5,774,984 A 7/1998 Kotani
 5,839,742 A 11/1998 Holt
 5,845,926 A 12/1998 Davis et al.
 D409,681 S 5/1999 Poulsen
 D411,263 S 6/1999 Korsholm
 6,047,988 A 4/2000 Aloe et al.
 6,142,268 A 11/2000 Kuo-An
 D435,236 S 12/2000 Hanlon et al.
 6,170,838 B1 1/2001 Laurent et al.
 D446,263 S 8/2001 Heys
 6,394,878 B1 * 5/2002 Wang A63H 17/262
 446/454
 D468,252 S 1/2003 Morris
 6,550,796 B2 4/2003 Behr
 6,641,457 B1 11/2003 Lai
 6,655,118 B1 12/2003 Thompson et al.
 6,668,779 B2 12/2003 Hendriksma et al.
 6,702,307 B2 3/2004 Becker et al.
 6,719,313 B2 4/2004 Zadok
 6,761,372 B2 7/2004 Bryant
 D493,848 S 8/2004 Dunst
 6,881,122 B2 4/2005 Bloch et al.
 6,945,843 B1 9/2005 Motosko
 7,185,902 B1 3/2007 Lloyd
 D546,751 S 7/2007 Laatz
 D549,787 S * 8/2007 Chen D21/548
 D567,886 S 4/2008 Lampert et al.
 7,367,573 B2 5/2008 Kudo et al.
 D570,735 S * 6/2008 Ogihara D15/3
 7,887,074 B2 2/2011 Byers et al.
 D647,826 S 11/2011 Goettker
 9,120,511 B1 * 9/2015 Beard B60L 15/20
 D779,392 S 2/2017 Hare
 9,855,975 B2 1/2018 Amemiya
 D822,126 S * 7/2018 Allmendinger D21/562
 D828,460 S 9/2018 Wood
 D839,363 S 1/2019 Ewing et al.
 D856,432 S 8/2019 Ewing et al.
 D865,079 S 10/2019 Ewing
 D867,475 S 11/2019 Ewing et al.
 D935,532 S * 11/2021 Ewing D21/562
 D952,051 S * 5/2022 Xu D21/550
 D952,052 S * 5/2022 Xu D21/550
 D975,204 S * 1/2023 Xu D21/549
 2002/0041076 A1 4/2002 Becker et al.
 2002/0077025 A1 6/2002 Wu

2002/0125676 A1 9/2002 Bryant
 2003/0122336 A1 7/2003 Zadok
 2003/0209217 A1 11/2003 Hendriksma et al.
 2004/0045518 A1 3/2004 Abe
 2004/0261739 A1 12/2004 Shimizuya
 2005/0040619 A1 2/2005 Melcher
 2005/0156399 A1 * 7/2005 Chu B60G 3/20
 280/124.134
 2006/0006622 A1 1/2006 Gesmer et al.
 2007/0108712 A1 * 5/2007 Ryan B60G 15/067
 280/124.1
 2008/0303227 A1 * 12/2008 Chi Chun Idiot ... A63H 17/262
 280/1
 2010/0240276 A1 * 9/2010 Chu A63H 29/22
 446/456
 2012/0169023 A1 7/2012 Rawlinson et al.
 2014/0227941 A1 * 8/2014 Suzuki A63H 17/36
 446/456
 2016/0318362 A1 11/2016 Watanabe et al.
 2017/0050483 A1 2/2017 Gordon et al.
 2017/0080350 A1 * 3/2017 Allmendinger A63H 30/04
 2017/0274932 A1 9/2017 Byrnes, Jr.
 2018/0126290 A1 * 5/2018 Hodge A63H 17/262
 2019/0070919 A1 3/2019 Andou et al.
 2019/0367117 A1 12/2019 Fischer et al.
 2021/0171132 A1 * 6/2021 Underwood B62D 21/04

FOREIGN PATENT DOCUMENTS

GB 8095551000-7000 * 3/2016
 TW D135320 S 6/2010
 TW D139245 S 3/2011
 TW 185102-0001 * 8/2017
 WO WOD095551-001 * 4/2017
 WO WOD095551-008 * 4/2017

OTHER PUBLICATIONS

TeamSR XB4 shock towers, First Date Available: Unknown, Image retrieved on: Jun. 1, 2023, <<https://www.redrc.net/2012/12/teamsr-xb4-shock-towers/>>.*
 Associated Electrics, “Monster GT” model truck; Associated Electrics, Inc., Costa Mesa, California, 1 photograph.
 Associated Electrics, “RC10GT” model vehicle; Associated Electrics, Inc., Costa Mesa, California, 1 photograph.
 Bradley, John; “The Racing Motorcycle”; 1996, pp. 246-273, 322-325; Broadland Leisure Publications, England.
 Ellsworth, Tony; “Suspension Design Enhancements—The Ellsworth Dare”; Dreamride Mountain Bike Tours and Film Services, Moab, Utah, 2001.
 Horizon Hobby, “Losi XXX buggy”; Horizon Hobby, Inc., Champaign, Illinois; 1 sketch of suspension geometry.
 HPI Racing, “Savage 21” model truck; Hobby Products International, Foothill Ranch, California; 1 sketch of suspension geometry.
 Hyperpro_USA; “What is Progressive Suspension?” HyperPRO_USA.com.
 Kyosho Inferno MP7.5 model car; Kyosho America, Lake Forest, California; 2 sketches of suspension geometry.
 Milliken, William F. and Milliken Douglas L.; “Race Car Vehicle Dynamics” 1995, pp. 580-583, 595-597, 628-631; SAE Publications Group, Pennsylvania USA.
 Phillpotts, Peter; “Rising Rate Suspension”; Off Road Design, 2001.
 Race Tech, “Profile—Chalmers Formula SAE Car” Race Tech magazine, Oct./Nov. 2003, p. 74; Racecar Graphic Ltd, London, England.
 Racecar Engineering, Jun. 2003—vol. 13 No. 6, pp. 15, 106; Country & Leisure Media Ltd./IPC Media Ltd., Croyden, England.
 Salven, Michael; “Progressive Suspension” Nov. 10, 2000; myTSN—Publication, Netherlands.
 Serpent, Veteq; Serpent Model Racing Cars, Noord-Holland, Netherlands; 3 pictures.
 Serpent, Veteq; Serpent Model Racing Cars, Noord-Holland, Netherlands; 1 sketch of suspension geometry.

(56)

References Cited

OTHER PUBLICATIONS

Staniforth, Allan; "Competition Car Suspension" 1988, pp. 76-81, 84-85; Haynes Publications, Newbury Park, California.
Tamiya, "Terra Crusher" model truck; Tamiya America, Inc., Aliso Viejo, California; 1 sketch of suspension geometry.
Traxxas, "Nitro Rustler" model vehicle; Traxxas LP, Plano, Texas; 1 photograph.
Traxxas; "T-Maxx Assemblies, Front Assembly" exploded view; Traxxas LP, Plano, Texas.
Traxxas, "T-Maxx" model vehicle; Traxxas LP, Plano, Texas; 1 photograph.
Full size vehicle with suspension linkage #1.
Full size vehicle with suspension linkage #2.
Axial SCX10 II Shock Hoops AX131380; <http://www.axialracing.com/products/ax31380>; Aug. 2016.
HPI Venture FJ Cruiser; <http://www.hpiracing.com/en/article/view/2016012702>; Jan. 27, 2016.

Taiwan IPO Search Report, Taiwan Design App No. 105301437; dated Aug. 4, 2016.
Taiwan IPO Search Report, Taiwan Design App No. 106300762; dated May 16, 2017.
L. Granieri; U.S. Pat. No. 903,080; Road Vehicle Wheel Axle; Nov. 3, 1908.
H. Ewing; U.S. Pat. No. 951,000; Spring Controlled Vehicle Wheel Link; Mar. 1, 1910.
2Pcs RC Model Car Shock Tower Upgrade Parts for Xinlehong Q901, Q902, Q903, Earliest Available Date Oct. 22, 2019 [Online], [Site Visited Oct. 20, 2020] Available From Internet, URL: <<https://www.newegg.com/p/1SW-00TF-00H35>> (Year: 2019).
1 _ 28 RC Car Upgraded Metal Part Shock Tower for Wltoys P929 P939 K969 K979 K989 K999, Earliest Available Date Oct. 20, 2020 [Online], [Site Visited Oct. 20, 2020] Available From Internet, URL: <https://www.gearbest.com/rc-car-parts/pp_009793593021.html> (Year: 2020).

* cited by examiner

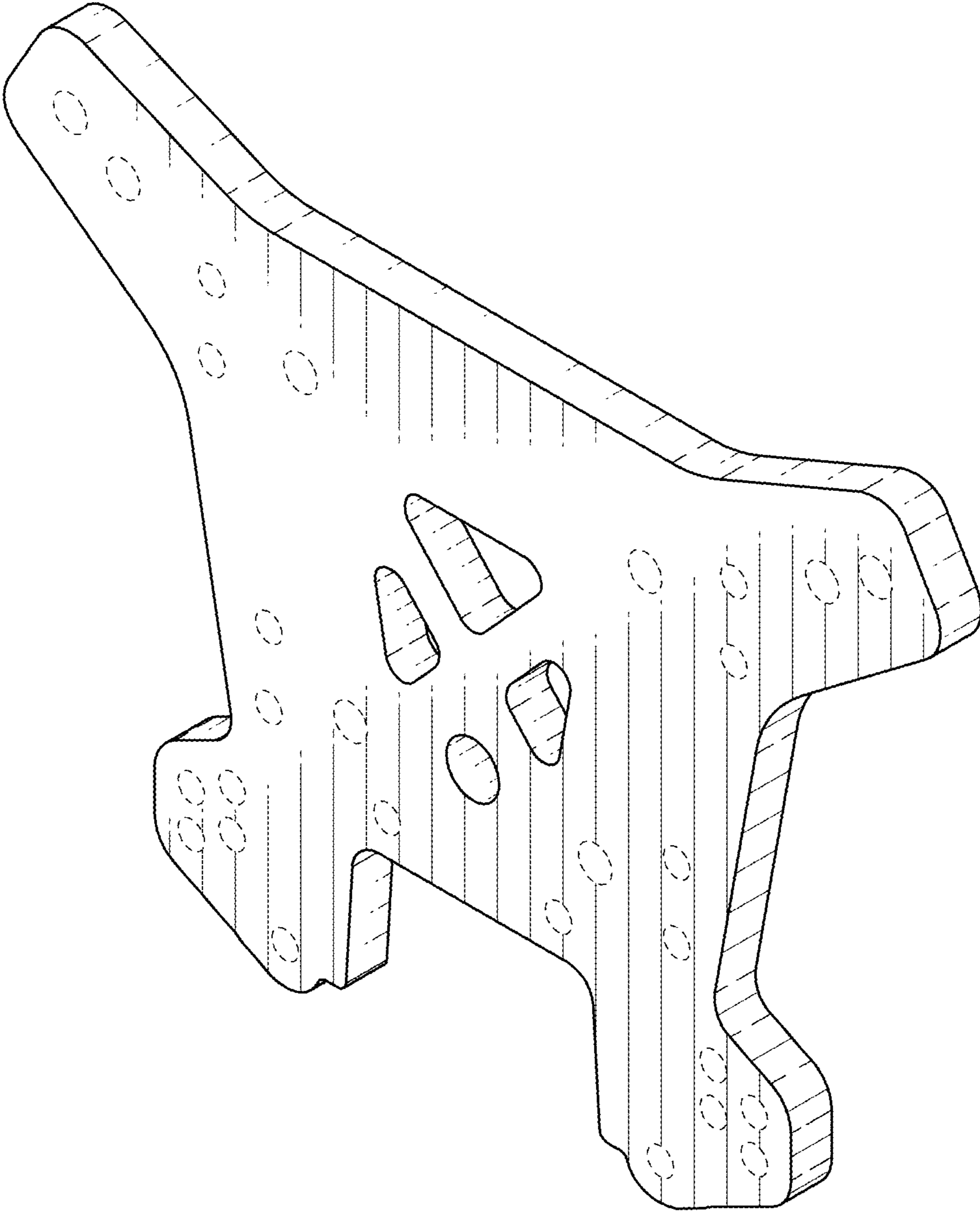


FIG. 1

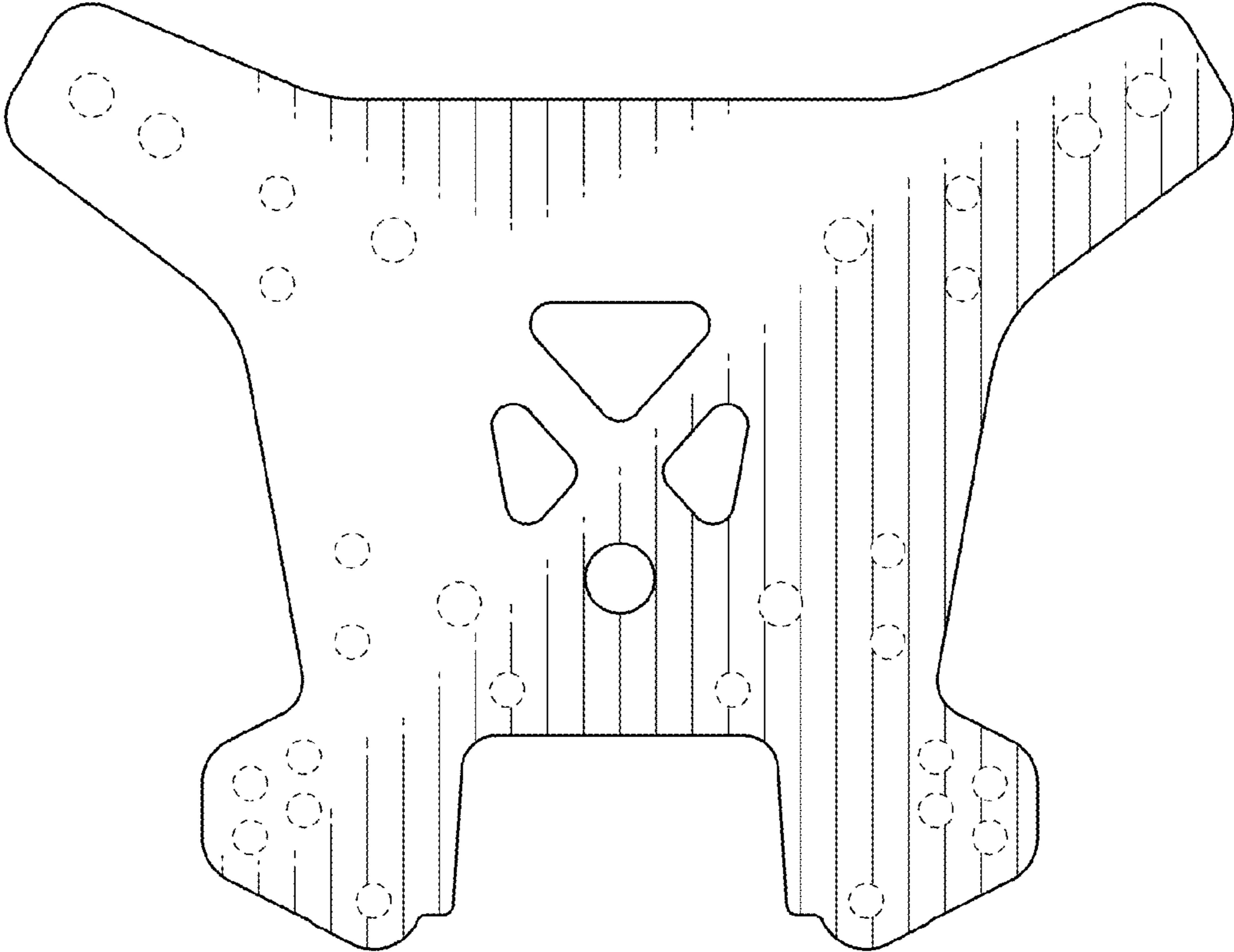


FIG. 2

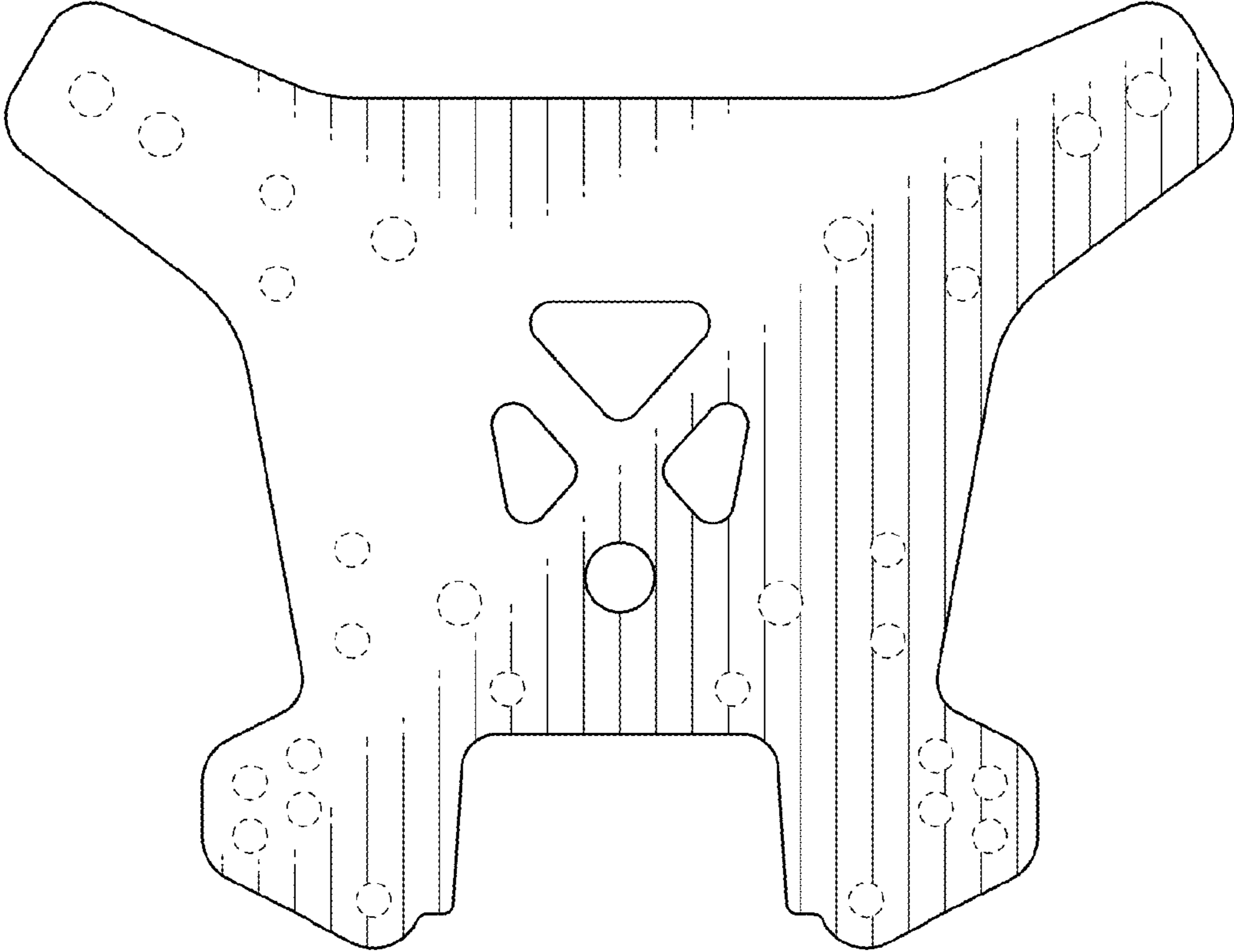


FIG. 3



FIG. 4

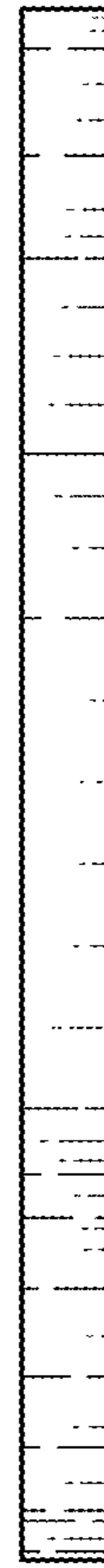


FIG. 5

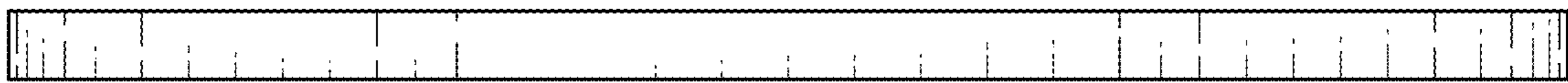


FIG. 6

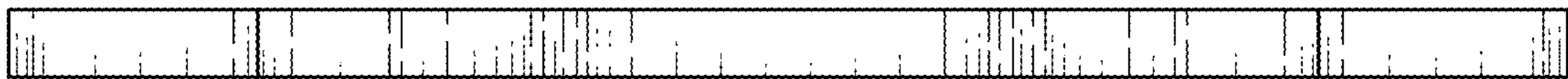


FIG. 7

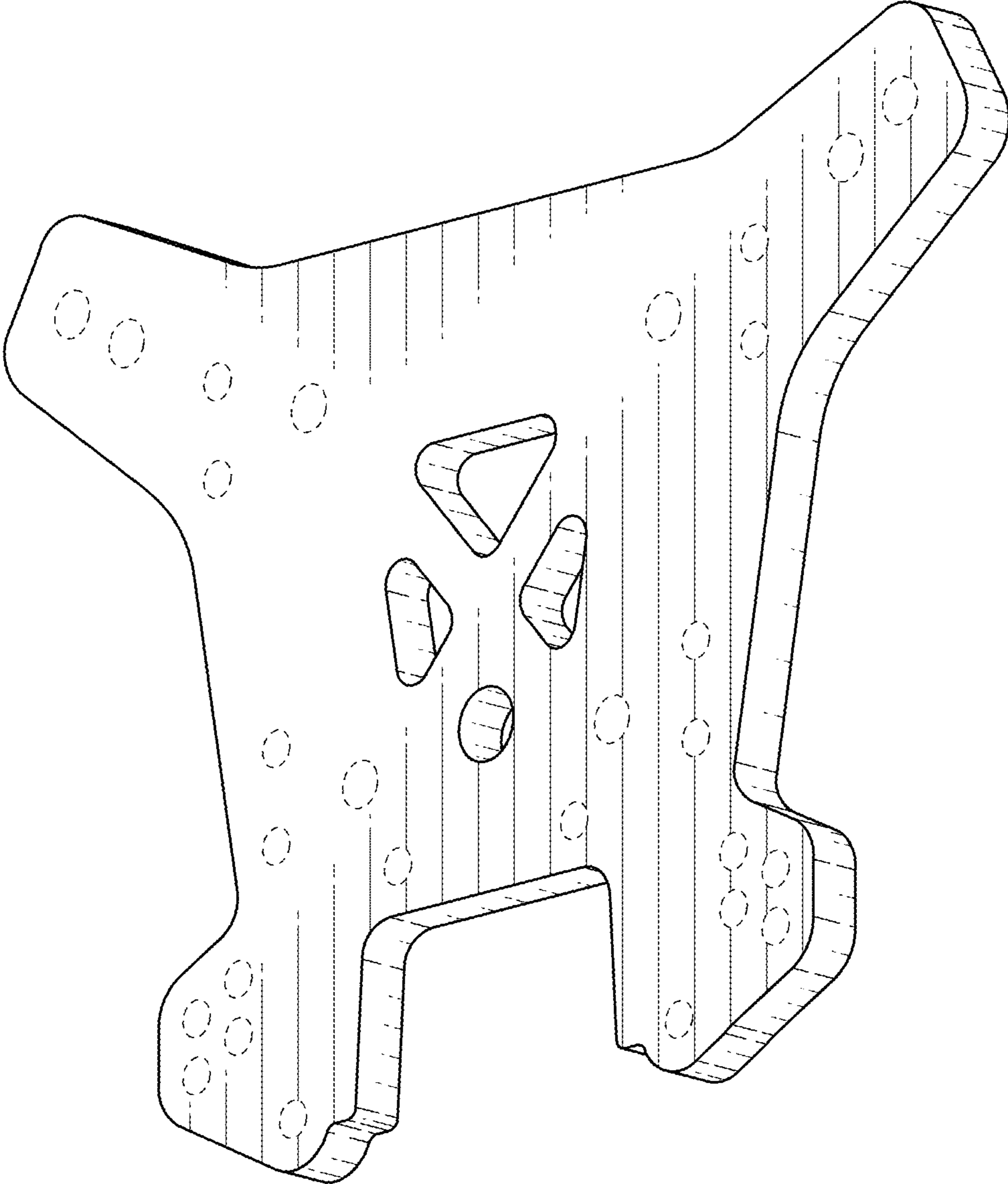


FIG. 8