



US00D847708S

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

(10) **Patent No.:** **US D847,708 S**

(45) **Date of Patent:** **\*\* May 7, 2019**

- (54) **VEHICLE FRONT BUMPER**
- (71) Applicant: **GM GLOBAL TECHNOLOGY OPERATIONS LLC**, Detroit, MI (US)
- (72) Inventors: **Sungjin Yong**, Seoul (KR); **Dongkyu Kim**, Seongnam-si (KR); **Gyungwon Lee**, Bucheon-si (KR)
- (73) Assignee: **GM Global Technology Operations LLC**, Detroit, MI (US)
- (\*\*) Term: **15 Years**
- (21) Appl. No.: **29/635,539**
- (22) Filed: **Jan. 31, 2018**
- (30) **Foreign Application Priority Data**

- Oct. 20, 2017 (KR) ..... 30-2017-0048992
- (51) **LOC (11) Cl.** ..... **12-16**
- (52) **U.S. Cl.**  
USPC ..... **D12/169**
- (58) **Field of Classification Search**  
USPC ..... D12/86, 90, 91, 92, 163, 169, 171, 196, D12/216  
CPC ..... B60R 19/02; B60R 19/04; B62D 25/00; B62D 25/06; B62D 25/08; B62D 35/00  
See application file for complete search history.

- (56) **References Cited**  
U.S. PATENT DOCUMENTS
- |              |        |               |       |         |
|--------------|--------|---------------|-------|---------|
| D528,051 S * | 9/2006 | Fukui         | ..... | D12/169 |
| D537,389 S * | 2/2007 | Beigel        | ..... | D12/169 |
| D540,722 S * | 4/2007 | Angelo        | ..... | D12/169 |
| D570,742 S   | 6/2008 | Takagi et al. |       |         |
| D584,199 S * | 1/2009 | Leclercq      | ..... | D12/169 |
| D592,105 S   | 5/2009 | Dean et al.   |       |         |
| D597,447 S   | 8/2009 | Folden        |       |         |

- |              |         |                      |       |         |
|--------------|---------|----------------------|-------|---------|
| D598,827 S * | 8/2009  | Kanai                | ..... | D12/169 |
| D600,595 S   | 9/2009  | Nakamura et al.      |       |         |
| D601,925 S   | 10/2009 | O'Donnell            |       |         |
| D603,755 S   | 11/2009 | Peters               |       |         |
| D604,203 S   | 11/2009 | O'Donnell            |       |         |
| D605,082 S   | 12/2009 | Munson               |       |         |
| D605,083 S   | 12/2009 | Manoogian, II et al. |       |         |
| D605,977 S   | 12/2009 | Zipfel et al.        |       |         |
| D605,978 S   | 12/2009 | Wolff et al.         |       |         |
| D608,249 S   | 1/2010  | Peters               |       |         |
| D608,690 S   | 1/2010  | Folden et al.        |       |         |
| D608,691 S   | 1/2010  | Zak, Jr. et al.      |       |         |
| D609,608 S   | 2/2010  | Boniface et al.      |       |         |
| D611,387 S   | 3/2010  | Thompson et al.      |       |         |
| D611,879 S   | 3/2010  | Kim et al.           |       |         |
| D612,297 S   | 3/2010  | Peters et al.        |       |         |
| D613,645 S   | 4/2010  | Song et al.          |       |         |
| D615,458 S   | 5/2010  | Thompson et al.      |       |         |
| D618,595 S   | 6/2010  | Ware et al.          |       |         |
| D623,090 S   | 9/2010  | Cox et al.           |       |         |
| D626,042 S * | 10/2010 | Yamazaki             | ..... | D12/169 |

(Continued)

*Primary Examiner* — Susan Bennett Hattan  
*Assistant Examiner* — Suzanne E Tisdell  
 (74) *Attorney, Agent, or Firm* — Reising Ethington, P.C.

(57) **CLAIM**

The ornamental design for a vehicle front bumper, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of the vehicle front bumper; FIG. 2 is a front elevation view thereof; FIG. 3 is a right side view thereof; FIG. 4 is a left side view thereof; FIG. 5 is a top plan view thereof; FIG. 6 is a bottom plan view thereof; and, FIG. 7 is a rear elevation view thereof.  
 The broken lines in the drawings illustrate portions of the vehicle front bumper that form no part of the claimed design.

**1 Claim, 6 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D627,262 S	11/2010	Ikeda et al.		D746,726 S	1/2016	Smith et al.	
D635,488 S	4/2011	Phipps		D746,727 S	1/2016	Smith et al.	
D644,147 S	8/2011	Suh et al.		D746,728 S	1/2016	Smith et al.	
D644,567 S	9/2011	Kozub		D746,729 S	1/2016	Boniface et al.	
D657,718 S	4/2012	Zipfel et al.		D746,730 S	1/2016	Kim et al.	
D659,052 S	5/2012	Ware et al.		D747,514 S	1/2016	McMahan et al.	
D659,053 S	5/2012	Ware et al.		D747,515 S	1/2016	McMahan et al.	
D668,182 S	10/2012	Barba Franco et al.		D747,819 S	1/2016	Thole et al.	
D668,183 S	10/2012	Smart		D749,021 S	2/2016	Boniface et al.	
D678,820 S	3/2013	Son et al.		D749,026 S	2/2016	Smith et al.	
D678,821 S	3/2013	Ikeda et al.		D749,027 S	2/2016	McMahan et al.	
D680,479 S	* 4/2013	Frei .....	D12/169	D749,246 S	2/2016	Thole et al.	
D680,909 S	4/2013	Munson et al.		D749,249 S	2/2016	Thole et al.	
D680,910 S	4/2013	David		D749,250 S	2/2016	Thole et al.	
D684,899 S	6/2013	Baker		D749,985 S	2/2016	Kozub et al.	
D686,536 S	7/2013	McCabe et al.		D749,997 S	2/2016	McMahan et al.	
D687,752 S	* 8/2013	Fetherston .....	D12/169	D750,001 S	2/2016	Thole et al.	
D688,989 S	* 9/2013	Minamisawa .....	D12/169	D750,539 S	* 3/2016	Iwauchi .....	D12/169
D692,798 S	11/2013	Thurber		D753,032 S	4/2016	Smith et al.	
D692,799 S	11/2013	Smith et al.		D753,033 S	4/2016	Thole et al.	
D696,157 S	12/2013	Loeb		D753,034 S	4/2016	Thole et al.	
D699,629 S	2/2014	Ikeda et al.		D753,035 S	4/2016	Boniface et al.	
D700,871 S	3/2014	O'Donnell et al.		D753,559 S	4/2016	McMahan et al.	
D702,161 S	* 4/2014	Hanaoka .....	D12/169	D753,560 S	4/2016	McMahan et al.	
D703,103 S	4/2014	Lee		D753,567 S	4/2016	Boniface et al.	
D704,103 S	5/2014	Mack et al.		D754,571 S	4/2016	Boniface et al.	
D705,132 S	5/2014	Ware et al.		D754,572 S	4/2016	McMahan et al.	
D705,699 S	5/2014	Ware et al.		D755,088 S	5/2016	McMahan et al.	
D712,322 S	* 9/2014	Kobayashi .....	D12/169	D756,869 S	5/2016	McMahan et al.	
D713,298 S	9/2014	Dyson		D758,271 S	6/2016	McMahan et al.	
D713,764 S	9/2014	Ferlazzo et al.		D762,532 S	* 8/2016	Tsutamori .....	D12/169
D716,696 S	11/2014	Thole et al.		D764,975 S	* 8/2016	Aengenheyster .....	D12/91
D716,706 S	11/2014	Thole et al.		D764,976 S	8/2016	Aengenheyster	
D716,709 S	11/2014	Thole et al.		D767,449 S	9/2016	Pevovar et al.	
D717,696 S	11/2014	Thole et al.		D767,450 S	9/2016	Lee et al.	
D718,189 S	11/2014	Krieg et al.		D767,451 S	9/2016	Kozub et al.	
D718,683 S	12/2014	Thole et al.		D767,454 S	9/2016	McMahan et al.	
D721,305 S	* 1/2015	George .....	D12/169	D767,458 S	9/2016	Kim	
D721,306 S	* 1/2015	George .....	D12/169	D767,459 S	9/2016	Kim	
D722,282 S	2/2015	Loeb		D767,460 S	9/2016	Kozub et al.	
D722,533 S	2/2015	Thole et al.		D767,461 S	9/2016	Kozub et al.	
D722,534 S	2/2015	Munson et al.		D771,528 S	11/2016	Smith et al.	
D722,926 S	* 2/2015	Kato .....	D12/169	D771,529 S	11/2016	Thole et al.	
D723,435 S	* 3/2015	Thole .....	D12/169	D771,532 S	11/2016	Kapitonov	
D724,510 S	3/2015	McMahan et al.		D771,533 S	11/2016	Kapitonov	
D725,001 S	3/2015	McMahan et al.		D772,766 S	11/2016	Kozub et al.	
D726,591 S	4/2015	Jacob		D772,767 S	11/2016	Kim	
D726,602 S	* 4/2015	Rupar .....	D12/169	D773,084 S	11/2016	Kapitonov	
D729,707 S	* 5/2015	Thole .....	D12/169	D773,086 S	11/2016	McCabe et al.	
D730,776 S	6/2015	Smart		D774,226 S	12/2016	McCabe et al.	
D730,783 S	6/2015	Henriques et al.		D774,428 S	* 12/2016	Davidson .....	D12/169
D732,427 S	6/2015	Loeb		D775,003 S	12/2016	Pevovar et al.	
D732,429 S	6/2015	Loeb		D775,007 S	12/2016	Thole et al.	
D732,430 S	6/2015	Loeb		D775,010 S	12/2016	Kim et al.	
D732,431 S	6/2015	Loeb		D775,049 S	12/2016	Scheer et al.	
D732,432 S	6/2015	Aengenheyster		D775,549 S	1/2017	Karras	
D732,433 S	6/2015	Aengenheyster		D775,554 S	1/2017	Kapitonov	
D732,435 S	6/2015	Mackay		D776,020 S	1/2017	Kapitonov	
D733,002 S	6/2015	Loeb		D776,581 S	1/2017	Pevovar et al.	
D735,611 S	8/2015	Aengenheyster		D776,583 S	1/2017	Scheer et al.	
D735,627 S	8/2015	Smith		D776,841 S	1/2017	Kozub et al.	
D736,451 S	8/2015	Smith		D776,843 S	1/2017	McCabe et al.	
D739,306 S	9/2015	McMahan et al.		D776,846 S	1/2017	Willett et al.	
D739,317 S	9/2015	McMahan et al.		D777,359 S	1/2017	Kozub et al.	
D741,223 S	10/2015	Kim et al.		D777,360 S	1/2017	Kozub et al.	
D743,309 S	11/2015	Thole et al.		D777,361 S	1/2017	Kozub et al.	
D743,313 S	11/2015	Smith et al.		D777,604 S	1/2017	McNerney	
D743,314 S	11/2015	Thole et al.		D777,605 S	1/2017	Ferlazzo et al.	
D743,857 S	11/2015	McMahan et al.		D777,620 S	1/2017	Pevovar et al.	
D744,158 S	11/2015	Willett et al.		D777,621 S	1/2017	Kim	
D745,086 S	12/2015	Finos et al.		D777,622 S	1/2017	Kozub et al.	
D745,719 S	12/2015	Boniface et al.		D777,628 S	1/2017	Kozub et al.	
D745,725 S	12/2015	McMahan et al.		D777,955 S	1/2017	Willett et al.	
D745,726 S	12/2015	McMahan et al.		D778,212 S	2/2017	Kozub et al.	
D745,837 S	12/2015	Smith et al.		D778,215 S	2/2017	Kozub et al.	
				D780,064 S	2/2017	Smith et al.	
				D780,067 S	2/2017	Zipfel et al.	
				D780,068 S	2/2017	Whitla et al.	
				D780,077 S	2/2017	Kim et al.	



(56)

References Cited

U.S. PATENT DOCUMENTS

D780,081 S	2/2017	Lee	
D780,084 S	2/2017	Scheer et al.	
D780,631 S	3/2017	Kozub et al.	
D780,644 S	3/2017	Kim et al.	
D781,184 S	3/2017	Thole et al.	
D781,192 S	3/2017	Kozub et al.	
D782,379 S	3/2017	Wassell	
D783,482 S	4/2017	Smith et al.	
D784,213 S	4/2017	Karras	
D784,223 S	4/2017	Lee	
D784,226 S	4/2017	Cheng	
D784,579 S	4/2017	Cheng et al.	
D784,877 S	4/2017	Lee	
D784,886 S	4/2017	Smith et al.	
D785,521 S	5/2017	Smith et al.	
D786,149 S	* 5/2017	Pevovar .....	D12/169
D786,743 S	5/2017	Smith et al.	
D786,750 S	5/2017	Lee	
D787,446 S	5/2017	Cockerill	
D787,984 S	5/2017	Fang	
D787,988 S	5/2017	Lee	
D787,989 S	5/2017	Kozub et al.	
D787,990 S	5/2017	Kozub et al.	
D787,992 S	5/2017	Lee	
D787,993 S	5/2017	McCabe et al.	
D788,001 S	5/2017	Lee	
D788,641 S	6/2017	Arnold	
D788,644 S	6/2017	Mueller	
D788,645 S	6/2017	Mueller	
D788,657 S	* 6/2017	Oohashi .....	D12/169
D789,250 S	6/2017	Arnold	
D789,260 S	6/2017	Smith	
D789,575 S	6/2017	Willet	
D789,841 S	6/2017	Malczewski	
D789,849 S	6/2017	Lee	
D791,018 S	7/2017	Mylenek	
D791,644 S	7/2017	Fang	
D792,290 S	7/2017	Smith et al.	
D792,293 S	7/2017	McCabe et al.	
D792,294 S	7/2017	McCabe et al.	
D792,295 S	7/2017	McCabe et al.	
D792,815 S	* 7/2017	Kozub .....	D12/169
D792,816 S	* 7/2017	Kozub .....	D12/169
D793,290 S	8/2017	Kozub	
D793,292 S	8/2017	Lee	
D793,293 S	8/2017	Lee et al.	
D793,294 S	8/2017	Lee	
D793,295 S	8/2017	McCabe et al.	
D793,296 S	* 8/2017	Smith .....	D12/169
D793,297 S	8/2017	Smith et al.	
D793,299 S	8/2017	Krieg et al.	
D793,300 S	8/2017	Krieg et al.	
D793,301 S	8/2017	Kozub	
D793,302 S	8/2017	Kozub	
D793,311 S	8/2017	Whitla et al.	
D793,590 S	8/2017	Kozub et al.	
D793,591 S	8/2017	Kozub et al.	
D793,917 S	8/2017	Kozub	
D793,918 S	8/2017	Kozub	
D793,921 S	* 8/2017	Takamatsu .....	D12/169
D793,924 S	* 8/2017	Sagawa .....	D12/169
D794,229 S	8/2017	Barry	
D794,230 S	8/2017	Kozub	
D795,747 S	8/2017	Bailie	
D795,757 S	8/2017	Pevovar et al.	
D795,758 S	8/2017	Karras	
D795,759 S	8/2017	Kozub et al.	
D795,760 S	8/2017	Kozub et al.	
D795,762 S	8/2017	Lee	
D795,763 S	8/2017	Kozub	
D796,088 S	8/2017	McCabe et al.	
D796,093 S	8/2017	Mainville	
D796,390 S	9/2017	Pevovar et al.	
D797,019 S	* 9/2017	Yamashita .....	D12/169
D797,537 S	9/2017	Cooper et al.	
D797,603 S	9/2017	Noone et al.	
D797,614 S	9/2017	Lee	
D797,616 S	9/2017	Lee	
D797,617 S	* 9/2017	Mori .....	D12/169
D797,618 S	* 9/2017	Suzuki .....	D12/169
D797,624 S	9/2017	Nakamura	
D797,625 S	9/2017	Perkins	
D797,631 S	9/2017	Pevovar et al.	
D797,632 S	9/2017	Zipfel et al.	
D797,967 S	9/2017	Barry	
D797,970 S	9/2017	Mainville	
D797,971 S	9/2017	Mainville	
D797,972 S	9/2017	Whitla et al.	
D798,204 S	9/2017	Mainville	
D799,384 S	10/2017	Kozub et al.	
D799,385 S	10/2017	Kozub et al.	
D799,386 S	10/2017	Kozub et al.	
D799,728 S	10/2017	Whitla et al.	
D800,035 S	* 10/2017	Takamatsu .....	D12/169
D800,614 S	* 10/2017	Park .....	D12/169
D801,236 S	10/2017	Kozub et al.	
D801,577 S	10/2017	Ruiz	
D801,882 S	11/2017	Kozub et al.	
D802,205 S	11/2017	Ruiz	
D802,478 S	11/2017	Perkins	
D802,491 S	11/2017	Mainville	
D802,496 S	11/2017	Mainville	
D802,502 S	11/2017	McMahan	
D803,112 S	* 11/2017	Tomita .....	D12/169
D803,727 S	11/2017	Noone et al.	
D803,731 S	11/2017	Zipfel	
D804,370 S	12/2017	Kozub et al.	
D804,371 S	12/2017	Whitla et al.	
D804,372 S	12/2017	Kozub	
D804,378 S	12/2017	Perkins	
D804,379 S	12/2017	McMahan	
D805,006 S	12/2017	Nakamura	
D805,013 S	12/2017	Whitla	
D805,014 S	12/2017	Zipfel	
D805,441 S	12/2017	Karras	
D805,449 S	* 12/2017	Chung .....	D12/169
D805,964 S	12/2017	Whitla	
D805,965 S	12/2017	Davis	
D805,966 S	12/2017	Perkins	
D805,985 S	12/2017	Nakamura	
D807,232 S	1/2018	Bailie	
D807,239 S	1/2018	Perkins	
D807,240 S	1/2018	Perkins	
D807,241 S	1/2018	Perkins	
D807,248 S	* 1/2018	Piscitelli .....	D12/169
D807,250 S	* 1/2018	Piscitelli .....	D12/169
D807,252 S	* 1/2018	Piscitelli .....	D12/169
D807,254 S	* 1/2018	Piscitelli .....	D12/169
D807,257 S	* 1/2018	Piscitelli .....	D12/169
D807,258 S	* 1/2018	Patel .....	D12/169
2004/0032133 A1	* 2/2004	Bird .....	B60R 19/04 293/154
2006/0249961 A1	* 11/2006	Flotzinger .....	B60R 19/04 293/115
2006/0290169 A1	* 12/2006	Fukushima .....	B60Q 1/302 296/180.1

\* cited by examiner



FIG. 1

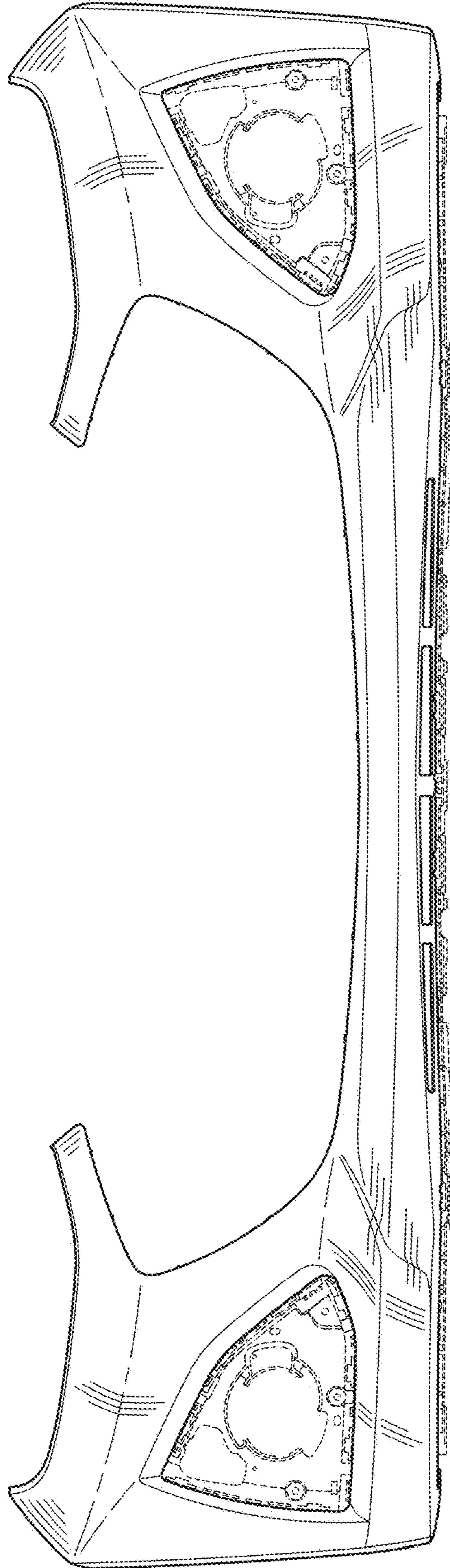


FIG. 2



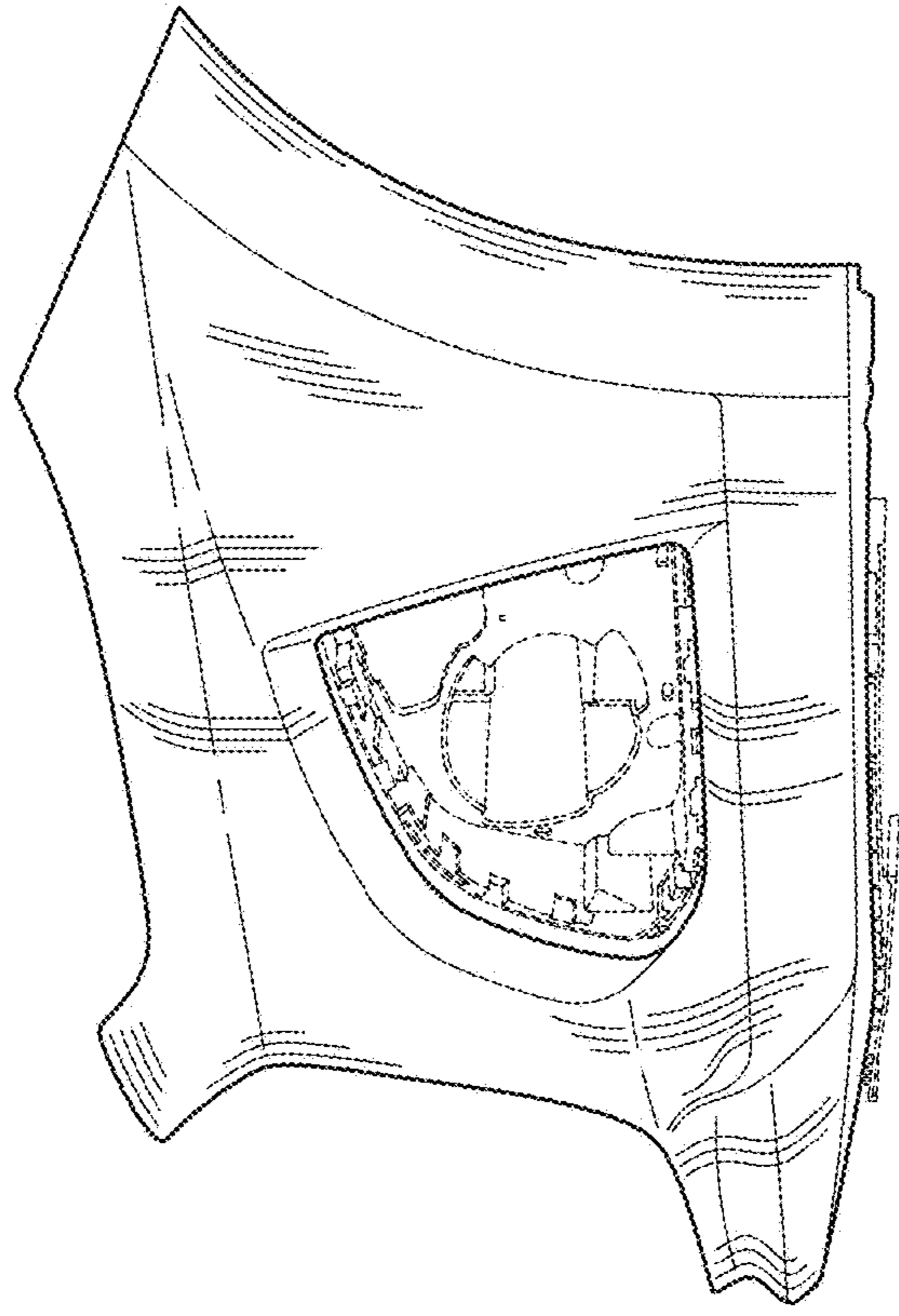


FIG. 4

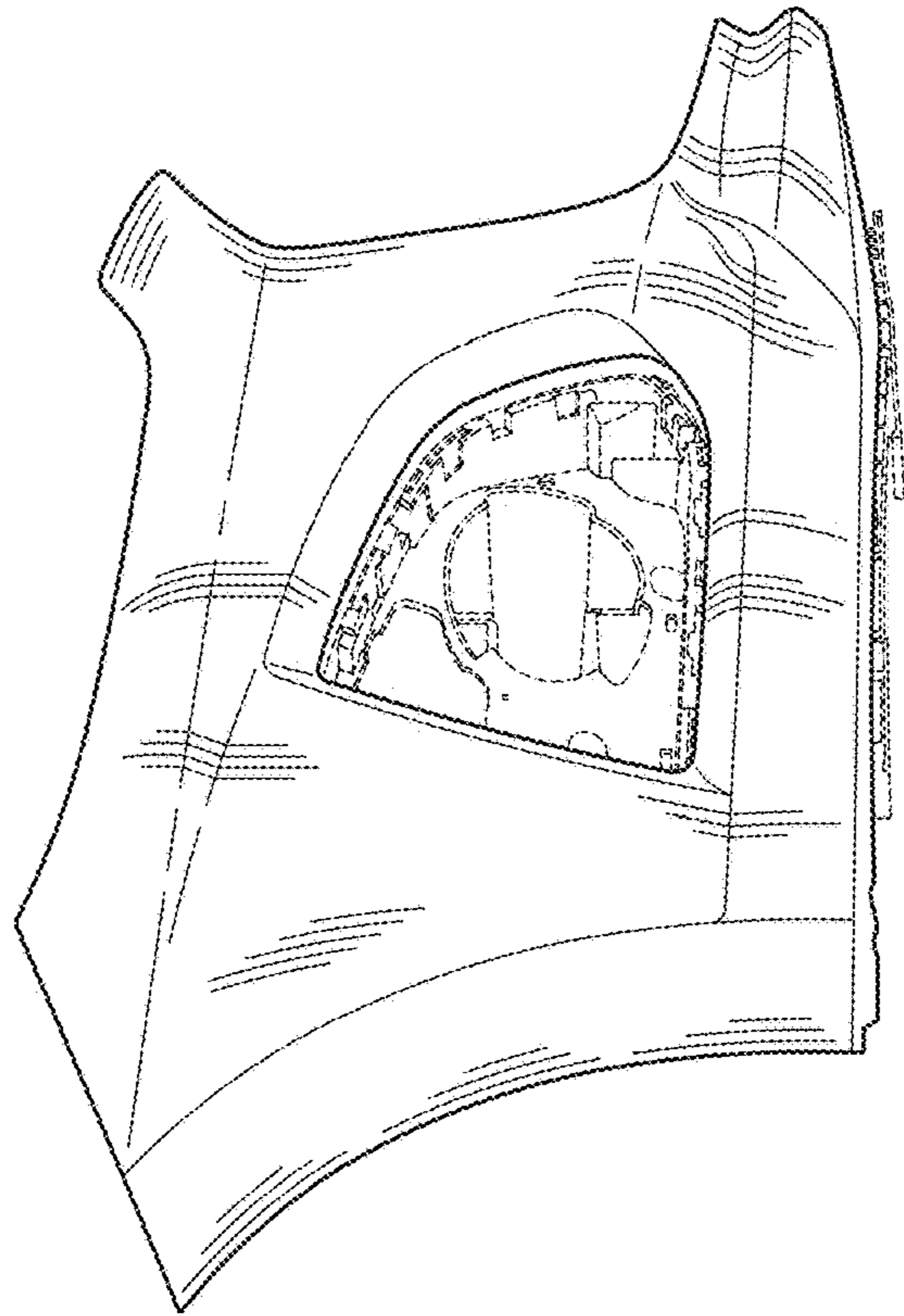


FIG. 3

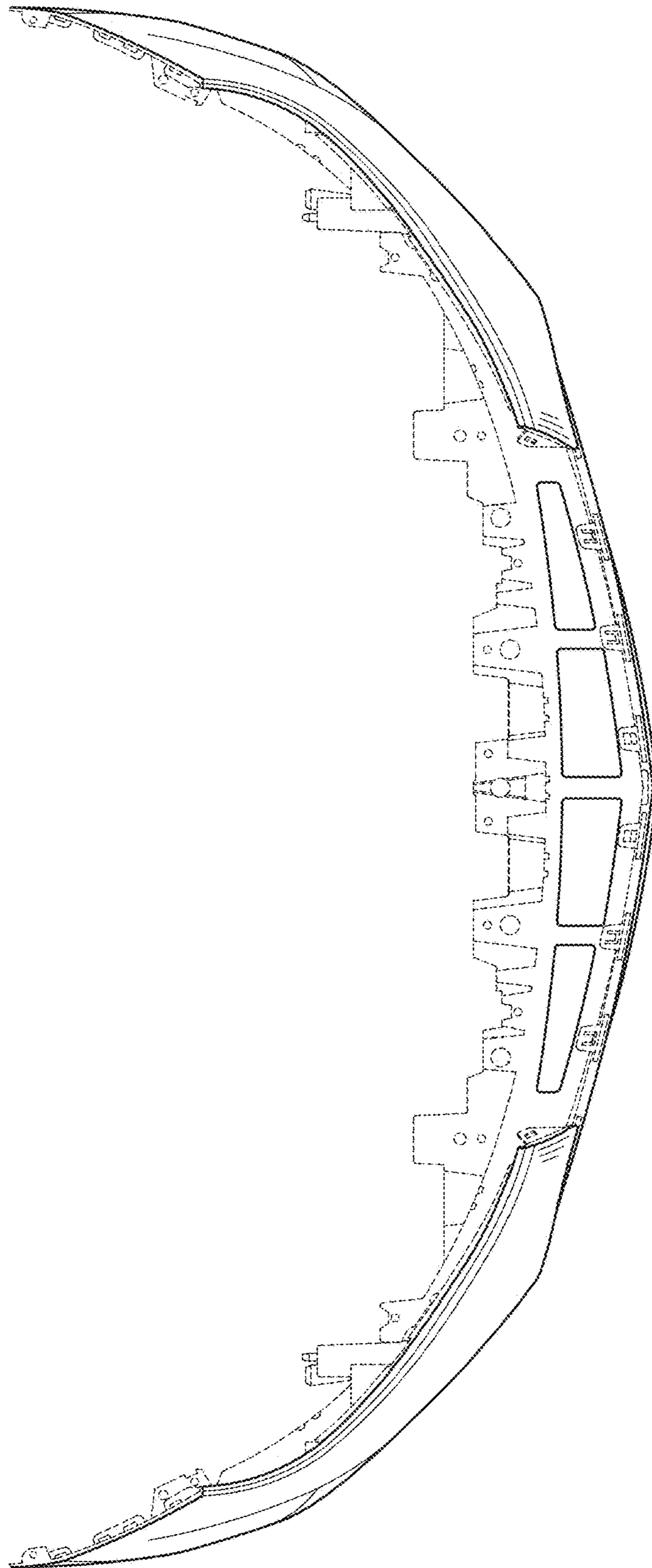


FIG. 5

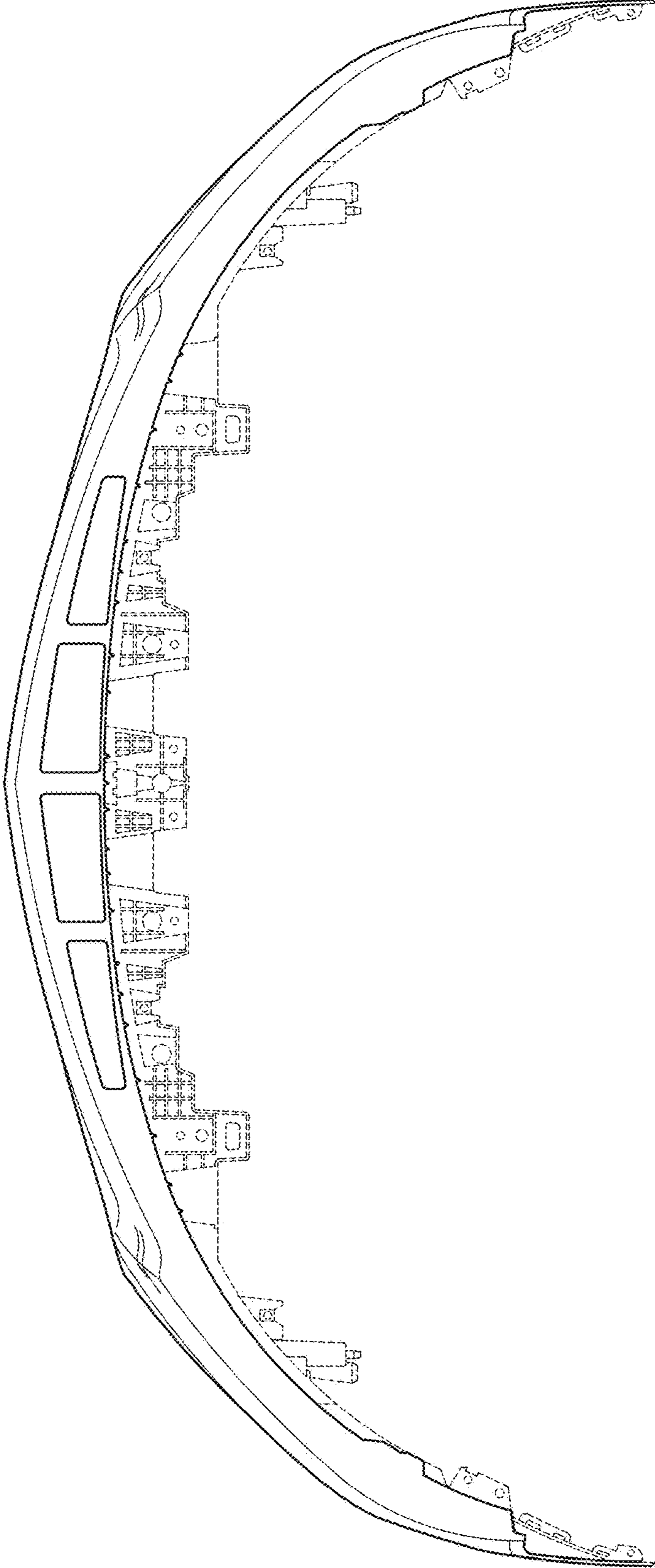


FIG. 6



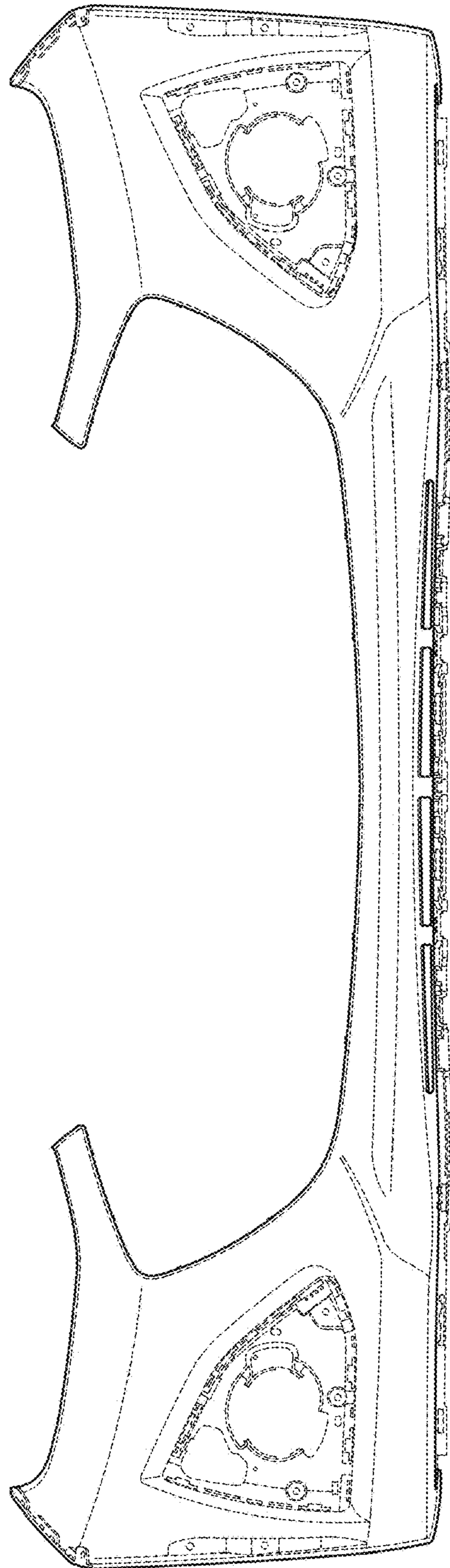


FIG. 7