



US00D817835S

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

(10) **Patent No.:** **US D817,835 S**  
(45) **Date of Patent:** **\*\* May 15, 2018**

(54) **AUTONOMOUS VEHICLE DOOR**  
(71) Applicant: **Waymo LLC**, Mountain View, CA (US)

D293,937 S 1/1988 Soma  
D293,938 S 1/1988 Soma  
D294,365 S 2/1988 Nishibori et al.  
(Continued)

(72) Inventors: **YooJung Ahn**, Mountain View, CA (US); **Jared S. Gross**, Belmont, CA (US); **Jonas De Moe**, Mountain View, CA (US)

**OTHER PUBLICATIONS**

McFadden, Colin-Druce, "Autonomous car concept swaps steering wheel for gesture controls", <<http://www.dvice.com/2014-3-12/autonomous-car-concept-swaps-steering-wheel-gesture-controls>>, Mar. 12, 2014.

(73) Assignee: **Waymo LLC**, Mountain View, CA (US)

(Continued)

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

*Primary Examiner* — George D. Kirschbaum

*Assistant Examiner* — Clese Moore, Jr.

(21) Appl. No.: **29/560,183**

(74) *Attorney, Agent, or Firm* — Lerner, David, Littenberg, Krumholz & Mentlik, LLP

(22) Filed: **Apr. 4, 2016**

(57) **CLAIM**

The ornamental design for an autonomous vehicle door, as shown and described.

**Related U.S. Application Data**

**DESCRIPTION**

(62) Division of application No. 29/514,665, filed on Jan. 15, 2015, now Pat. No. Des. 758,269, which is a division of application No. 29/491,723, filed on May 23, 2014, now Pat. No. Des. 731,383.

The present application is related to application Ser. No. 29/491,722, entitled Autonomous Vehicle Overall Exterior; to application Ser. No. 29/491,717, entitled Tire Rim; to application Ser. No. 29/491,734, entitled Autonomous Vehicle Headlamp; to application Ser. No. 29/491,730, entitled Autonomous Vehicle Taillamp; to application Ser. No. 29/491,726, entitled Autonomous Vehicle Wing Assembly; and to application Ser. No. 29/491,727, entitled Autonomous Vehicle Rear Vent/Reflector, the entire disclosures of which are incorporated by reference herein.

(51) **LOC (11) Cl.** ..... **12-16**

(52) **U.S. Cl.**  
USPC ..... **D12/196**

(58) **Field of Classification Search**  
USPC ..... D12/196, 190; D8/300, 301, 302  
CPC ..... B60R 13/0243; B60J 5/00; E05B 85/10  
See application file for complete search history.

FIG. 1 is a front perspective view of an autonomous vehicle door according to our design; and, FIG. 2 is a front elevation view thereof.

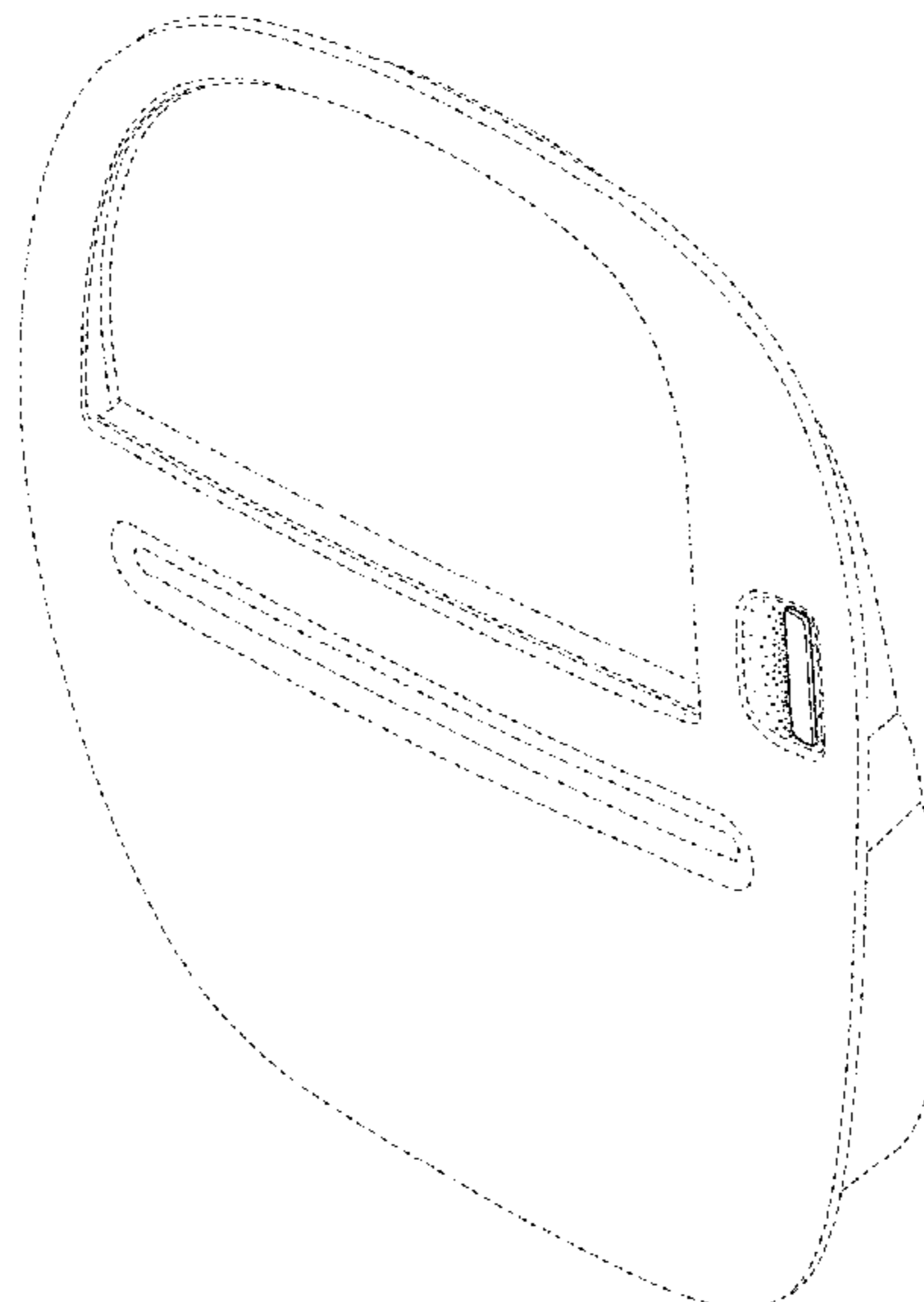
(56) **References Cited**

The broken lines shown illustrate portions of the autonomous vehicle door that form no part of the claimed design. Areas of the design shown with a stipple fill shading on the autonomous vehicle door is to indicate a contrast in color.

**U.S. PATENT DOCUMENTS**

3,032,645 A 5/1962 Wilfert  
3,093,320 A 6/1963 Knapp  
D282,923 S 3/1986 Soederberg  
D287,289 S 12/1986 Kato et al.

**1 Claim, 2 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

|              |         |                   |         |              |         |                  |         |
|--------------|---------|-------------------|---------|--------------|---------|------------------|---------|
| D303,618 S * | 9/1989  | Russell           | D8/302  | D619,931 S   | 7/2010  | Arnell           |         |
| D309,593 S   | 7/1990  | Bailey            |         | D624,218 S   | 9/2010  | Nakai et al.     |         |
| 5,060,994 A  | 10/1991 | Martin et al.     |         | D624,471 S   | 9/2010  | Green            |         |
| D323,901 S   | 2/1992  | Falck et al.      |         | D625,445 S   | 10/2010 | Takahashi et al. |         |
| 5,267,763 A  | 12/1993 | Klein             |         | D629,717 S   | 12/2010 | Artioli          |         |
| D350,503 S   | 9/1994  | Yang              |         | D630,563 S   | 1/2011  | Schneider        |         |
| D361,256 S * | 8/1995  | Vennola           | D8/307  | D633,644 S   | 3/2011  | Sprengers        |         |
| D391,137 S * | 2/1998  | Moebius           | D8/313  | D633,839 S   | 3/2011  | Matei et al.     |         |
| D411,814 S   | 7/1999  | Chibuka et al.    |         | D634,053 S   | 3/2011  | Guercio          |         |
| D418,471 S   | 1/2000  | Gabath            |         | D634,686 S   | 3/2011  | Matei et al.     |         |
| D421,588 S   | 3/2000  | Kitamura          |         | D636,312 S   | 4/2011  | Matei et al.     |         |
| D446,484 S   | 8/2001  | Martel            |         | D636,317 S   | 4/2011  | Matei et al.     |         |
| D447,191 S   | 8/2001  | Hoelzel et al.    |         | D638,338 S   | 5/2011  | Huet             |         |
| 6,318,045 B1 | 11/2001 | Kress             |         | D644,584 S * | 9/2011  | Vardis           | D12/190 |
| D455,161 S * | 4/2002  | Choi              | D15/89  | D644,975 S   | 9/2011  | Kumai et al.     |         |
| D456,312 S   | 4/2002  | Leutz             |         | D647,833 S   | 11/2011 | Matei et al.     |         |
| D457,115 S   | 5/2002  | Mahoney et al.    |         | D649,910 S   | 12/2011 | Mullen           |         |
| D459,764 S   | 7/2002  | Hoelzel et al.    |         | D651,132 S   | 12/2011 | Lambri et al.    |         |
| D466,458 S   | 12/2002 | Murkett           |         | D655,836 S   | 3/2012  | Lee et al.       |         |
| D467,849 S   | 12/2002 | Murkett           |         | D657,725 S   | 4/2012  | Segura           |         |
| D471,142 S   | 3/2003  | Carroll           |         | D660,211 S   | 5/2012  | Ikuma et al.     |         |
| 6,530,251 B1 | 3/2003  | Dimig             |         | D663,665 S   | 7/2012  | Hakamata et al.  |         |
| D472,505 S   | 4/2003  | Hurayt            |         | D667,973 S   | 9/2012  | Schneider        |         |
| D472,863 S   | 4/2003  | Carroll           |         | D668,927 S * | 10/2012 | Matei            | D8/302  |
| D475,474 S   | 6/2003  | Hsieh et al.      |         | D671,452 S   | 11/2012 | Fernandez Isoird |         |
| D476,340 S   | 6/2003  | Niebuhr et al.    |         | D671,453 S   | 11/2012 | Fernandez Isoird |         |
| D484,080 S   | 12/2003 | Yamamoto et al.   |         | D675,961 S   | 2/2013  | Nagafuchi et al. |         |
| D486,596 S   | 2/2004  | Chen              |         | D676,359 S   | 2/2013  | Panoz et al.     |         |
| D490,170 S   | 5/2004  | Metros et al.     |         | D678,566 S   | 3/2013  | Janssen          |         |
| D491,855 S   | 6/2004  | Velazco           |         | D680,931 S   | 4/2013  | Schmeckpeper     |         |
| D494,913 S   | 8/2004  | Chapman           |         | D681,529 S   | 5/2013  | Minami et al.    |         |
| D511,731 S   | 11/2005 | Lariviere et al.  |         | D682,172 S   | 5/2013  | Peltola et al.   |         |
| D515,489 S   | 2/2006  | Tokutake          |         | D682,759 S   | 5/2013  | Oliver           |         |
| D520,428 S   | 5/2006  | Iwanaga et al.    |         | D684,091 S   | 6/2013  | Frenzel et al.   |         |
| D525,727 S   | 7/2006  | Fujimoto et al.   |         | D684,509 S   | 6/2013  | Noll             |         |
| D525,731 S   | 7/2006  | Hovind et al.     |         | D684,515 S   | 6/2013  | Oliver           |         |
| D526,429 S   | 8/2006  | Hovind et al.     |         | D692,167 S   | 10/2013 | Yamazaki et al.  |         |
| D527,122 S   | 8/2006  | Chuang            |         | D692,168 S   | 10/2013 | Harrington, Jr.  |         |
| D527,697 S   | 9/2006  | Metros et al.     |         | D693,270 S   | 11/2013 | Burki et al.     |         |
| D528,490 S   | 9/2006  | Schumaker         |         | D693,272 S   | 11/2013 | Burki et al.     |         |
| D532,535 S   | 11/2006 | Lin               |         | D694,087 S * | 11/2013 | Burns            | D8/302  |
| D534,285 S   | 12/2006 | Williams          |         | D695,177 S   | 12/2013 | Matsueda         |         |
| D537,701 S * | 3/2007  | Houdek            | D8/302  | D695,178 S   | 12/2013 | Tada et al.      |         |
| D546,986 S   | 7/2007  | Platto et al.     |         | D695,179 S   | 12/2013 | Tada et al.      |         |
| D547,473 S   | 7/2007  | Yeoman et al.     |         | D695,661 S   | 12/2013 | Asano et al.     |         |
| D549,364 S   | 8/2007  | Hovind et al.     |         | D695,663 S   | 12/2013 | Suga et al.      |         |
| D549,366 S   | 8/2007  | Hovind et al.     |         | D695,664 S   | 12/2013 | Suga et al.      |         |
| D553,269 S   | 10/2007 | Pfeiffer et al.   |         | D696,172 S   | 12/2013 | Kawasaki et al.  |         |
| D556,111 S   | 11/2007 | Levy              |         | D696,999 S   | 1/2014  | Suga et al.      |         |
| D556,662 S   | 12/2007 | Murkett           |         | D698,717 S   | 2/2014  | Kobayashi        |         |
| D559,734 S   | 1/2008  | Sinkwitz          |         | D699,375 S   | 2/2014  | Ueda et al.      |         |
| D564,432 S   | 3/2008  | Pfeiffer          |         | D700,104 S   | 2/2014  | Malachowski      |         |
| D564,855 S * | 3/2008  | Hidding           | D8/302  | D701,334 S   | 3/2014  | Christ           |         |
| D565,764 S   | 4/2008  | Zimmermann et al. |         | D706,191 S   | 6/2014  | Choi et al.      |         |
| D568,792 S   | 5/2008  | Moushegian et al. |         | D706,467 S   | 6/2014  | Robinson         |         |
| D572,997 S * | 7/2008  | Gulley            | D8/302  | D706,692 S   | 6/2014  | Wheel et al.     |         |
| D578,685 S   | 10/2008 | Manus             |         | D710,264 S   | 8/2014  | Watkins et al.   |         |
| D581,081 S   | 11/2008 | Mier-Langner      |         | D711,566 S   | 8/2014  | Wu               |         |
| D582,824 S   | 12/2008 | Kobayashi         |         | D712,232 S * | 9/2014  | Hall             | D8/302  |
| D586,020 S   | 2/2009  | Hsu               |         | D712,327 S   | 9/2014  | Tanaka et al.    |         |
| D592,102 S   | 5/2009  | Kim               |         | D712,813 S   | 9/2014  | Tanaka et al.    |         |
| D592,336 S   | 5/2009  | Hsu               |         | D714,700 S   | 10/2014 | Yamamoto         |         |
| D593,231 S   | 5/2009  | Koman             |         | D715,204 S   | 10/2014 | Peltola et al.   |         |
| 7,537,256 B2 | 5/2009  | Gates et al.      |         | D716,206 S   | 10/2014 | Thole et al.     |         |
| D594,383 S   | 6/2009  | Lo et al.         |         | D716,210 S   | 10/2014 | Ishikawa et al.  |         |
| D596,323 S   | 7/2009  | Ishizuka et al.   |         | D716,476 S   | 10/2014 | Asano            |         |
| D599,264 S   | 9/2009  | Akasawa et al.    |         | D718,197 S   | 11/2014 | Chen             |         |
| D601,072 S   | 9/2009  | Giachin           |         | D718,695 S   | 12/2014 | Galante et al.   |         |
| D603,296 S   | 11/2009 | Zhou et al.       |         | D719,062 S   | 12/2014 | Wada             |         |
| D603,306 S   | 11/2009 | Jung et al.       |         | D720,267 S   | 12/2014 | Norman et al.    |         |
| D608,262 S * | 1/2010  | Truebsbach        | D12/190 | D720,874 S   | 1/2015  | Jackson et al.   |         |
| D608,263 S * | 1/2010  | Truebsbach        | D12/190 | D721,023 S   | 1/2015  | Wiedeman et al.  |         |
| D613,220 S   | 4/2010  | Ikeda et al.      |         | D721,024 S   | 1/2015  | Thole et al.     |         |
| D615,905 S   | 5/2010  | Arnell            |         | D722,933 S   | 2/2015  | Ishikawa et al.  |         |
| D619,871 S * | 7/2010  | Behnke            | D8/302  | D726,082 S   | 4/2015  | Finney et al.    |         |
|              |         |                   |         | D726,351 S   | 4/2015  | Kato             |         |
|              |         |                   |         | D730,254 S   | 5/2015  | Glover et al.    |         |
|              |         |                   |         | D731,097 S   | 6/2015  | Dai              |         |
|              |         |                   |         | D731,379 S   | 6/2015  | Behmer et al.    |         |



(56)

**References Cited**

U.S. PATENT DOCUMENTS

|              |     |         |               |         |
|--------------|-----|---------|---------------|---------|
| D731,382     | S   | 6/2015  | Mana et al.   |         |
| D731,383     | S * | 6/2015  | Ahn .....     | D12/196 |
| D733,630     | S   | 7/2015  | Ahn et al.    |         |
| D734,211     | S   | 7/2015  | Ahn et al.    |         |
| D736,430     | S   | 8/2015  | Ko            |         |
| D743,311     | S * | 11/2015 | Weiner .....  | D12/195 |
| D743,312     | S   | 11/2015 | Iwauchi       |         |
| D743,863     | S   | 11/2015 | Finney et al. |         |
| D745,722     | S   | 12/2015 | Smith         |         |
| D757,621     | S   | 5/2016  | Ahn et al.    |         |
| D761,175     | S   | 7/2016  | Stoynov       |         |
| D761,176     | S   | 7/2016  | Sandys        |         |
| D763,757     | S   | 8/2016  | Buffery       |         |
| D766,792     | S   | 9/2016  | Shimizu       |         |
| D768,042     | S   | 10/2016 | Lee           |         |
| D784,884     | S * | 4/2017  | Ahn .....     | D12/195 |
| D793,329     | S   | 8/2017  | Mathis        |         |
| 2014/0252949 | A1  | 9/2014  | Ko et al.     |         |

OTHER PUBLICATIONS

Ridden, Paul, "ATNMBL—The concept car with no steering wheel, brake pedal or driver's seat", <<http://www.gizmag.com/atnmb-automated-concept-passenger-transport/15877/>>, Jul. 29, 2010.

\* cited by examiner

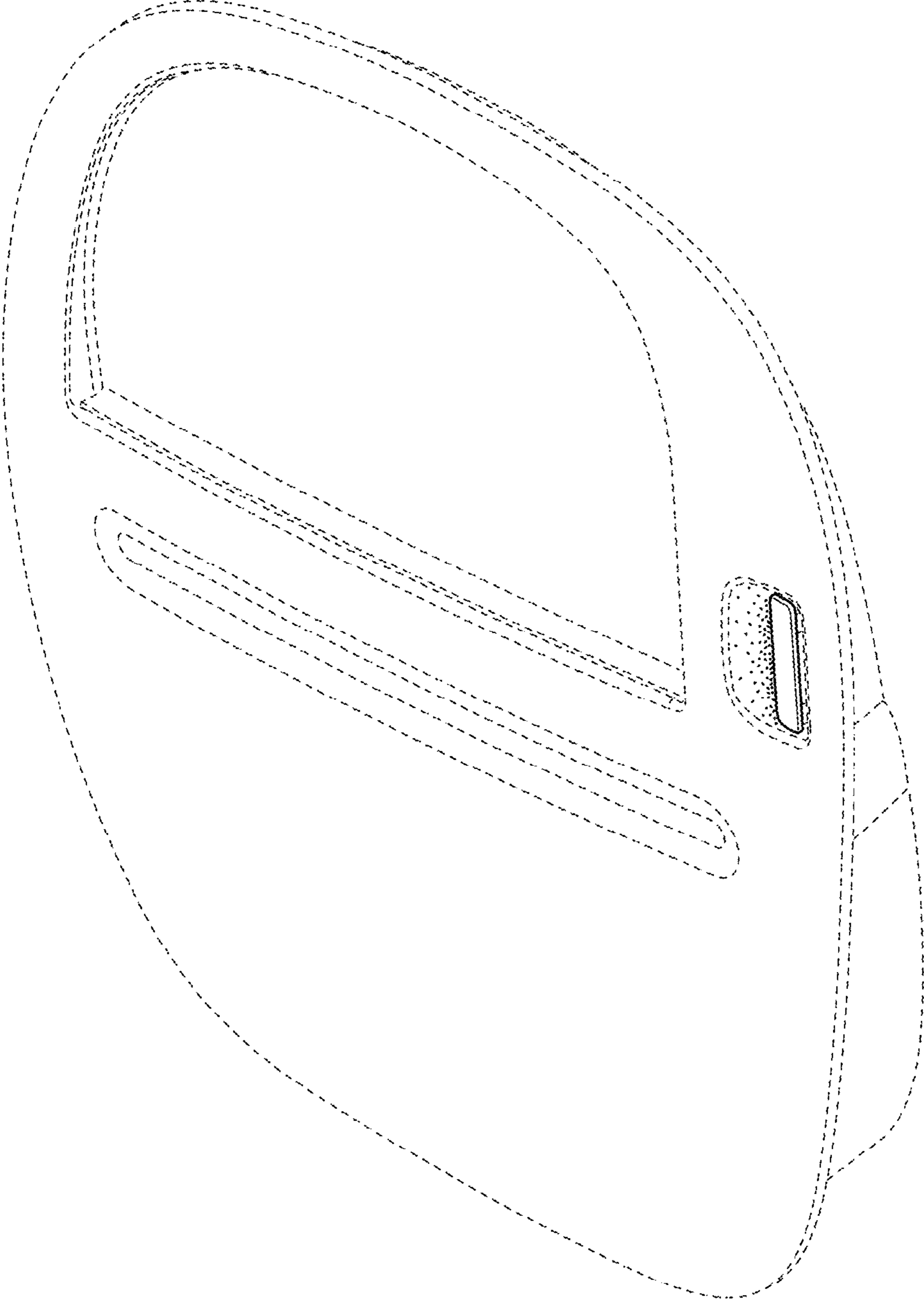


FIG. 1

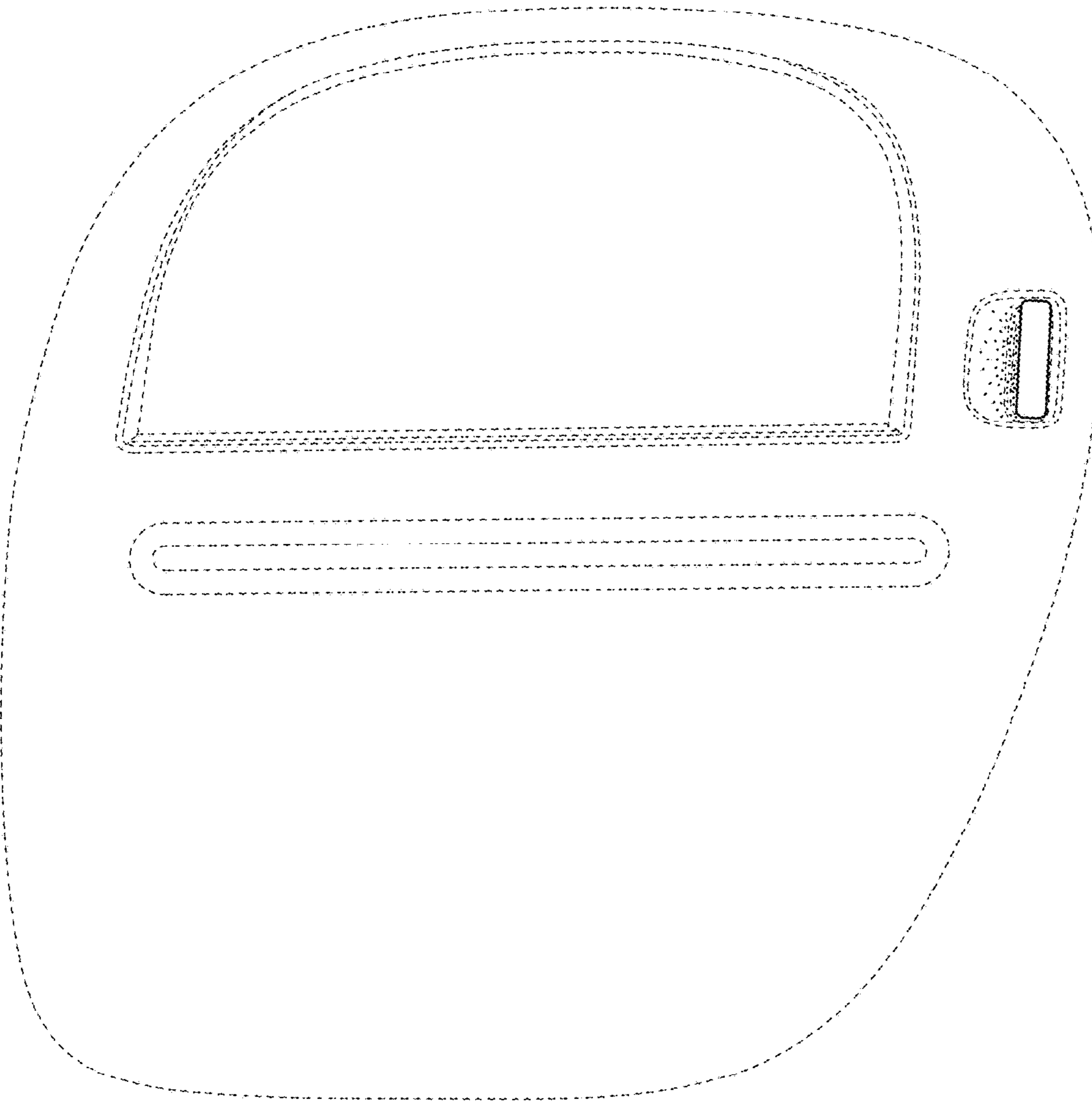


FIG. 2