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Van De Rostyne et al.

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(54) **HELICOPTER BODY**

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(51) **LOC (8) Cl.** **21-01**

(52) **U.S. Cl.** **D21/442; D12/326**

(58) **Field of Classification Search** D12/326-329, D12/345; D21/441-442, 450, 453; 446/36-45, 446/230, 232; 244/17.11, 217.27
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

| | | | |
|---------------|---------|--------------------|---------|
| 1,403,909 A | 1/1922 | Moir | |
| 1,446,522 A * | 2/1923 | Smith | 416/123 |
| 1,773,281 A | 8/1930 | Scott | |
| 1,800,470 A | 4/1931 | Oehmichen | |
| 2,030,578 A | 2/1936 | Flettner | |
| 2,368,698 A | 2/1945 | Young | |
| 2,384,516 A | 9/1945 | Young | |
| 2,411,596 A | 11/1946 | Shapiro | |
| 2,413,831 A | 1/1947 | Jordan | |
| 2,429,502 A | 10/1947 | Young | |
| D149,130 S | 3/1948 | Katenberter et al. | |
| 2,439,143 A | 4/1948 | Nemeth | |
| D153,314 S | 4/1949 | Piasecki | |
| D153,315 S | 4/1949 | Piasecki | |
| D153,316 S | 4/1949 | Piasecki | |
| D153,317 S | 4/1949 | Piasecki | |
| 2,469,144 A | 5/1949 | Baggott | |
| 2,481,750 A | 9/1949 | Hiller, Jr. et al. | |
| 2,486,059 A * | 10/1949 | Pentecost | 416/115 |
| 2,532,683 A | 12/1950 | Traver | |
| D163,938 S | 7/1951 | Douglas | |

| | | |
|-------------|---------|----------------------|
| 2,629,568 A | 2/1953 | Croshere, Jr. et al. |
| 2,633,924 A | 4/1953 | Young |
| 2,646,848 A | 7/1953 | Young |
| 2,629,570 A | 12/1953 | Carnahan |
| D171,569 S | 3/1954 | Apostolescu |
| 2,725,494 A | 11/1955 | Anderson |
| D178,081 S | 6/1956 | Papadakos |
| 2,750,131 A | 6/1956 | Thomson |
| D181,643 S | 12/1957 | Graham |
| D187,895 S | 5/1960 | Douglas |
| 2,950,074 A | 8/1960 | Apostolescu |

(Continued)

FOREIGN PATENT DOCUMENTS

BE 338599 12/1926

(Continued)

OTHER PUBLICATIONS

Selberg, B.P.; Cronin, D.L.; Rokhsaz, K.; Dykman, J.R., Yager, C. J. "Aerodynamic-Structural Analysis of Dual Bladed Helicopter Systems (Field Technical Report", Report No. NASA-CR-162754, Feb. 1980 46p (Abstract).

(Continued)

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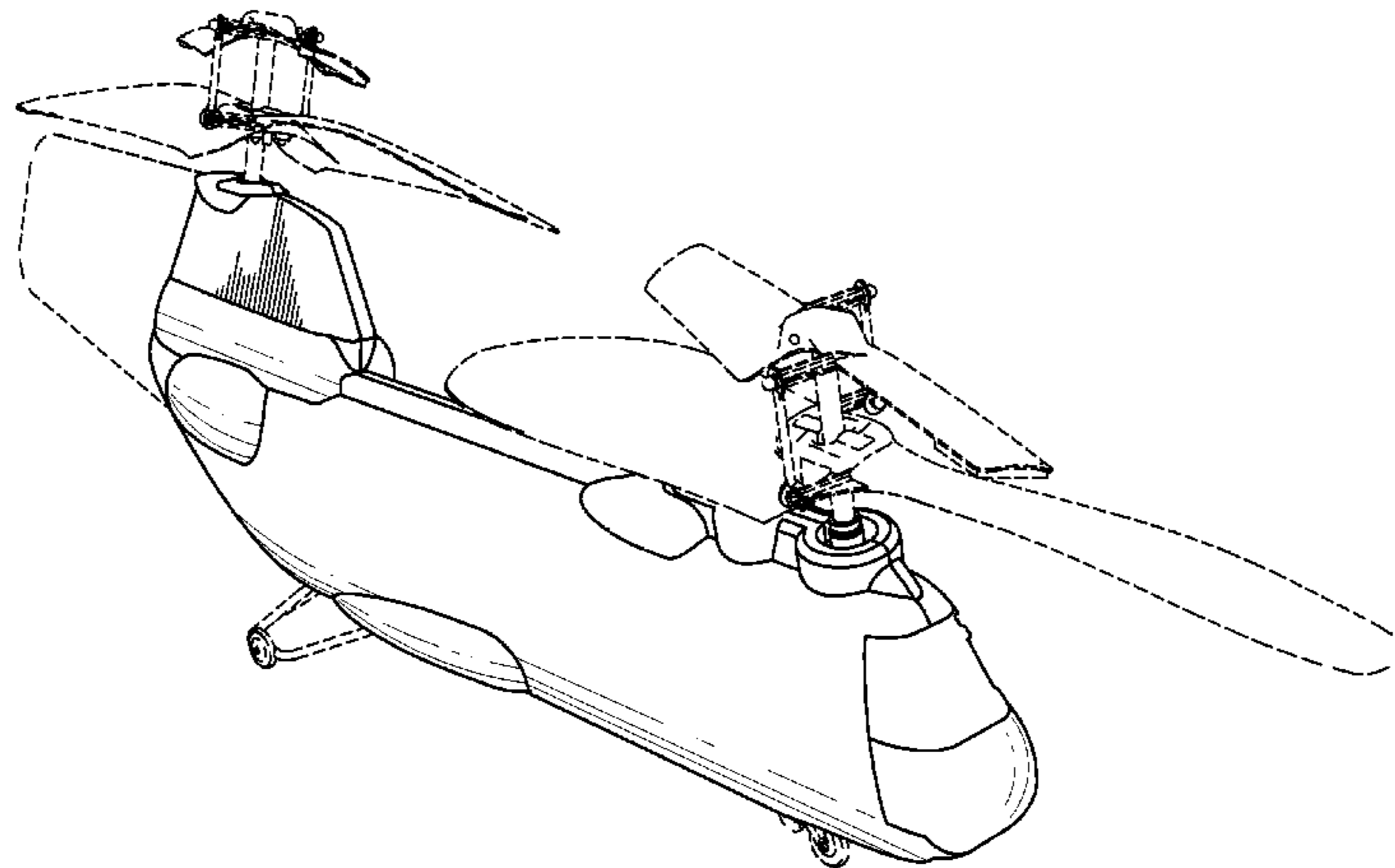
(57) **CLAIM**

The ornamental design for a helicopter body, as shown and described.

DESCRIPTION

FIG. 1 is a side view of a helicopter body;
FIG. 2 is an opposite side view of the helicopter body;
FIG. 3 is a perspective view of the helicopter body; and,
FIG. 4 is an opposite perspective view of the helicopter body.
Broken lines are for illustrative purposes only and form no part of the claimed design.

1 Claim, 4 Drawing Sheets



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U.S. PATENT DOCUMENTS

| | | | | |
|-----------|------|---------|------------------------------|--|
| 3,029,048 | A | 4/1962 | Brooks et al. | |
| 3,035,643 | A | 5/1962 | Kelley et al. | |
| 3,080,001 | A | 3/1963 | Culver et al. | |
| 3,093,929 | A | 6/1963 | Robbins et al. | |
| 3,106,964 | A | 10/1963 | Culver et al. | |
| 3,180,424 | A | 4/1965 | Serriades | |
| 3,213,944 | A | 10/1965 | Nichols et al. | |
| 3,228,478 | A | 1/1966 | Edenborough | |
| 3,409,249 | A | 11/1968 | Bergquist et al. | |
| 3,448,810 | A | 6/1969 | Vogt | |
| 3,572,616 | A | 3/1971 | Ulisnik | |
| 3,592,559 | A | 7/1971 | Ward | |
| 3,625,631 | A | 12/1971 | Covington, Jr. et al. | |
| 3,771,924 | A | 11/1973 | Buchstaller | |
| D232,168 | S | 7/1974 | Leoni | |
| D232,170 | S | 7/1974 | Diamond et al. | |
| D234,350 | S | 2/1975 | Beckert et al. | |
| D239,930 | S | 5/1976 | Ulisnik | |
| 4,025,230 | A | 5/1977 | Kastan | |
| 4,053,123 | A | 10/1977 | Chadwick | |
| 4,073,086 | A | 2/1978 | Ogawa | |
| 4,118,143 | A | 10/1978 | Kavan | |
| 4,142,697 | A | 3/1979 | Fradenburgh | |
| D253,003 | S | 9/1979 | Tanaka | |
| 4,227,856 | A | 10/1980 | Verrill et al. | |
| 4,307,533 | A | 12/1981 | Sims et al. | |
| 4,522,563 | A | 6/1985 | Reyes et al. | |
| 4,629,440 | A | 12/1986 | McKittrick et al. | |
| D294,605 | S | 3/1988 | Matsumoto | |
| 5,015,187 | A | 5/1991 | Lord | |
| 5,108,043 | A * | 4/1992 | Canavespe 244/17.11 | |
| 5,209,429 | A * | 5/1993 | Doolin et al. 244/17.11 | |
| 5,240,204 | A | 8/1993 | Kunz | |
| 5,255,871 | A | 10/1993 | Ikeda | |
| 5,370,341 | A * | 12/1994 | Leon 244/17.11 | |
| D357,894 | S | 5/1995 | Arnold et al. | |
| 5,511,947 | A | 4/1996 | Schmuck | |
| D372,741 | S | 8/1996 | Tsai | |
| D378,606 | S | 3/1997 | Tamagnini | |
| 5,609,312 | A | 3/1997 | Arlton et al. | |
| 5,628,620 | A | 5/1997 | Arlton | |
| D388,048 | S | 12/1997 | Taylor et al. | |
| D390,942 | S | 2/1998 | Mei | |
| 5,749,540 | A | 5/1998 | Arlton | |
| 5,836,545 | A | 11/1998 | Arlton et al. | |
| 5,879,131 | A | 3/1999 | Arlton et al. | |
| 5,906,476 | A | 5/1999 | Arlton | |
| 6,000,911 | A | 12/1999 | Toulmay et al. | |
| D421,279 | S | 2/2000 | Tsai | |
| 6,032,899 | A | 3/2000 | Mondet et al. | |
| 6,039,541 | A | 3/2000 | Parker et al. | |
| D425,853 | S | 5/2000 | Caporaletti | |
| 6,302,652 | B1 | 10/2001 | Roberts | |
| 6,398,618 | B1 | 6/2002 | Wu | |
| 6,435,453 | B1 * | 8/2002 | Carter, Jr. 244/8 | |
| 6,460,802 | B1 | 10/2002 | Norris | |
| 6,467,726 | B1 | 10/2002 | Hosoda | |
| D467,861 | S | 12/2002 | Lee | |
| 6,499,690 | B1 | 12/2002 | Katayama et al. | |
| 6,543,726 | B2 | 4/2003 | Illingworth | |
| 6,632,119 | B2 | 10/2003 | Cherneq et al. | |
| 6,659,395 | B2 | 12/2003 | Rehkemper et al. | |
| 6,659,721 | B1 | 12/2003 | Parker et al. | |
| 6,719,244 | B1 | 4/2004 | Gress | |
| 6,732,973 | B1 | 5/2004 | Rehkemper | |
| 6,749,401 | B2 | 6/2004 | Vanmoor | |
| 6,758,436 | B2 | 7/2004 | Rehkemper et al. | |
| 6,789,764 | B2 | 9/2004 | Bass et al. | |
| 6,884,034 | B1 | 4/2005 | Parker et al. | |
| 6,886,777 | B2 | 5/2005 | Rock | |
| 6,929,215 | B2 | 8/2005 | Arlton | |

| | | | | |
|--------------|------|---------|-------------------------------|-----------|
| D524,227 | S * | 7/2006 | Stille et al. | D12/327 |
| D524,228 | S * | 7/2006 | Scott et al. | D12/327 |
| D524,229 | S | 7/2006 | Stille et al. | |
| D524,718 | S * | 7/2006 | Scott et al. | D12/327 |
| 7,100,866 | B2 | 9/2006 | Rehkemper et al. | |
| 7,178,758 | B2 * | 2/2007 | Rehkemper | 244/17.11 |
| 7,198,223 | B2 | 4/2007 | Phelps, III et al. | |
| D548,803 | S | 8/2007 | Zimet | |
| 7,264,199 | B2 | 9/2007 | Zientek | |
| 2002/0109044 | A1 | 8/2002 | Rock | |
| 2002/0134883 | A1 | 9/2002 | Stamps et al. | |
| 2004/0087241 | A1 | 5/2004 | Agostini et al. | |
| 2004/0184915 | A1 | 9/2004 | Kunii et al. | |
| 2004/0222329 | A1 | 11/2004 | Kuhns et al. | |
| 2004/0245376 | A1 | 12/2004 | Muren | |
| 2005/0121553 | A1 | 6/2005 | Isawa et al. | |
| 2006/0121819 | A1 | 6/2006 | Isawa | |
| 2006/0231677 | A1 | 10/2006 | Zimet et al. | |
| 2007/0012818 | A1 | 1/2007 | Miyazawa et al. | |
| 2007/0105475 | A1 | 5/2007 | Gotou et al. | |
| 2007/0164148 | A1 | 7/2007 | Van De Rostyne | |
| 2007/0164149 | A1 | 7/2007 | Van De Rostyne | |
| 2007/0178798 | A1 | 8/2007 | Lai | |
| 2007/0181742 | A1 * | 8/2007 | Van de Rostyne et al. | 244/17.23 |
| 2007/0187549 | A1 | 8/2007 | Owen | |
| 2007/0215750 | A1 | 9/2007 | Shantz et al. | |

FOREIGN PATENT DOCUMENTS

| | | |
|----|--------------|---------|
| BE | 1016960 | 11/2007 |
| DE | 1 270 408 | 6/1968 |
| DE | 40 17 402 A1 | 12/1991 |
| DE | 94 14 652 U1 | 11/1994 |
| GB | 916894 A | 1/1963 |
| GB | 956536 | 4/1964 |
| GB | 958536 | 5/1964 |
| GB | 1081341 A | 8/1967 |
| JP | S30-7668 | 10/1930 |
| JP | S32-003535 | 6/1932 |
| JP | 1269699 | 10/1989 |
| JP | 9048398 | 2/1997 |
| JP | 9512515 | 12/1997 |
| JP | 10076996 | 3/1998 |
| JP | 2000-272594 | 10/2000 |
| JP | 2003-103066 | 4/2003 |
| JP | 2003-220999 | 8/2003 |
| JP | 2004-121798 | 4/2004 |
| JP | 2005-193905 | 7/2005 |
| JP | 2006-051217 | 2/2006 |

OTHER PUBLICATIONS

Ham, Normand. Helicopter individual-blade-control research at MIT 1977-1985; DGLR, European Rotorcraft Forum, 12th, Garmisch-Partenkirchen, West Germany; Germany, Federal Republic of; Sep. 22-25, 1986 10 pp. 1986 (Abstract).

Proctor, Paul. "Aviation Week & Space Technology", v146, n13, p. 47(1), Mar. 31, 1997 (Abstract).

Zein-Sabatto, S.; Zheng, Y. "Intelligent Flight Controllers for Helicopter Control"; 1997 IEEE International Conference on Neural Networks, Proceedings (Cat. No. 97CH36109) Part vol. 2 p. 617-21 vol. 2 (Abstract).

Mirick, Paul H. "A Comparison of Theory and Experiment for Coupled Rotor Body Stability of a Bearingless Rotor Model in Hover and Forward Flight", Jun. 1, 1988, IP Document Id 19880017770 pp. 87-101 (Abstract).

U.S. District Court, Eastern District of Virginia, Norfolk Division, *Silverlit Toys Manufactory, Ltd., et al. v. Westminster, Inc., et al.*, Case No. 2:07-cv-472-JBF/JEB.

U.S. District Court, Northern District of Georgia, Atlanta Division, *Westminster, Inc. v. Silverlit Toys Manufactory, Ltd., et al.*, Case No. 1:07-cv-2450-JOF.

U.S. District Court, Central District of California, Southern Division,
Innovage LLC v. Silverlit Toys Manufactory, Ltd., et al., Case No.
SACV07-1334 DOC (ANx).

Photographic reference #1, helicopter.

Photographic reference #2, helicopter displaying writing in French
on the tail.

Photographic reference #3, explanation of the function of the flybar.

Photographic reference #4, toy helicopter, www.raidentech.com.

Photographic reference #5, toy helicopter.

Photographic reference #6, helicopter.

Photographic reference #7, helicopter with M40297 or MA0297
displayed on the tail.

Photographic reference #8, toy helicopter #AHS-23900, hstoy.en.alibaba.com.

Photographic reference #9, toy helicopter, toys999.en.alibaba.com.
Mill, Colin. "Practical Theories, Part 9", W3MH—World Wide Web
Model Helicopter Magazine, Jul. 1996, <http://www.w3mh.co.uk/articles/html/csm9-11.htm>.

Day, David. "Moving swashplates & CCPM". 2001-2006. See <http://www.iroquois.free-online.co.uk>.

* cited by examiner

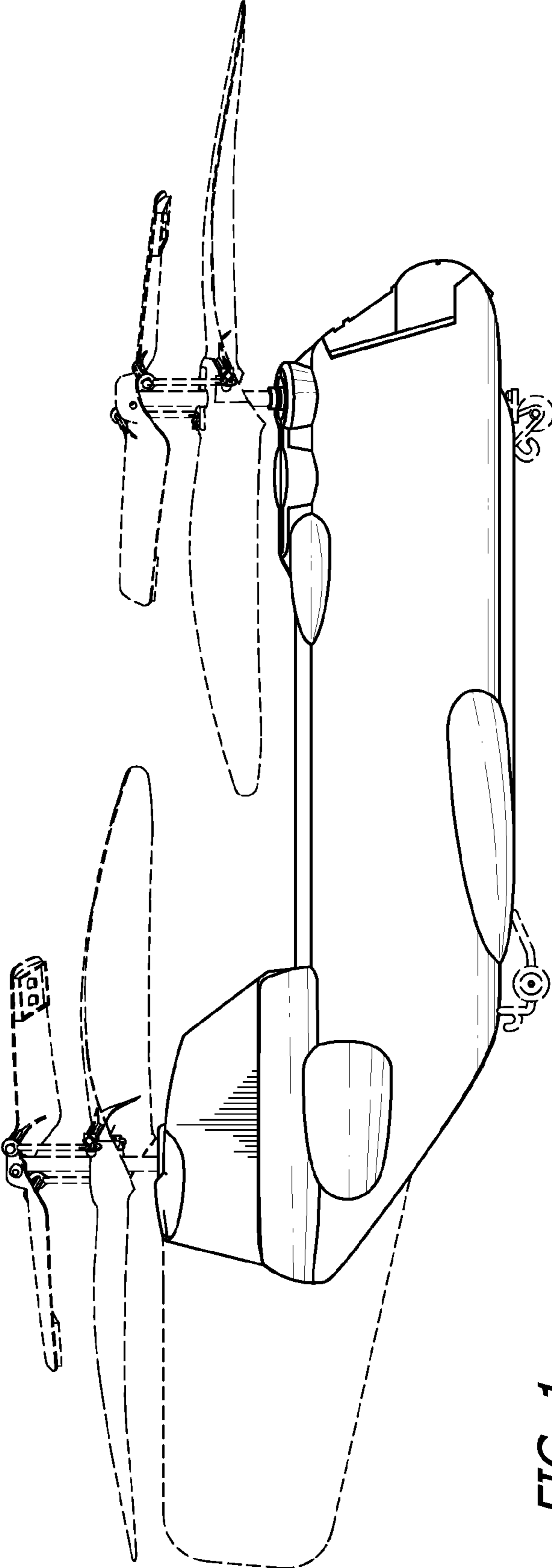


FIG. 1

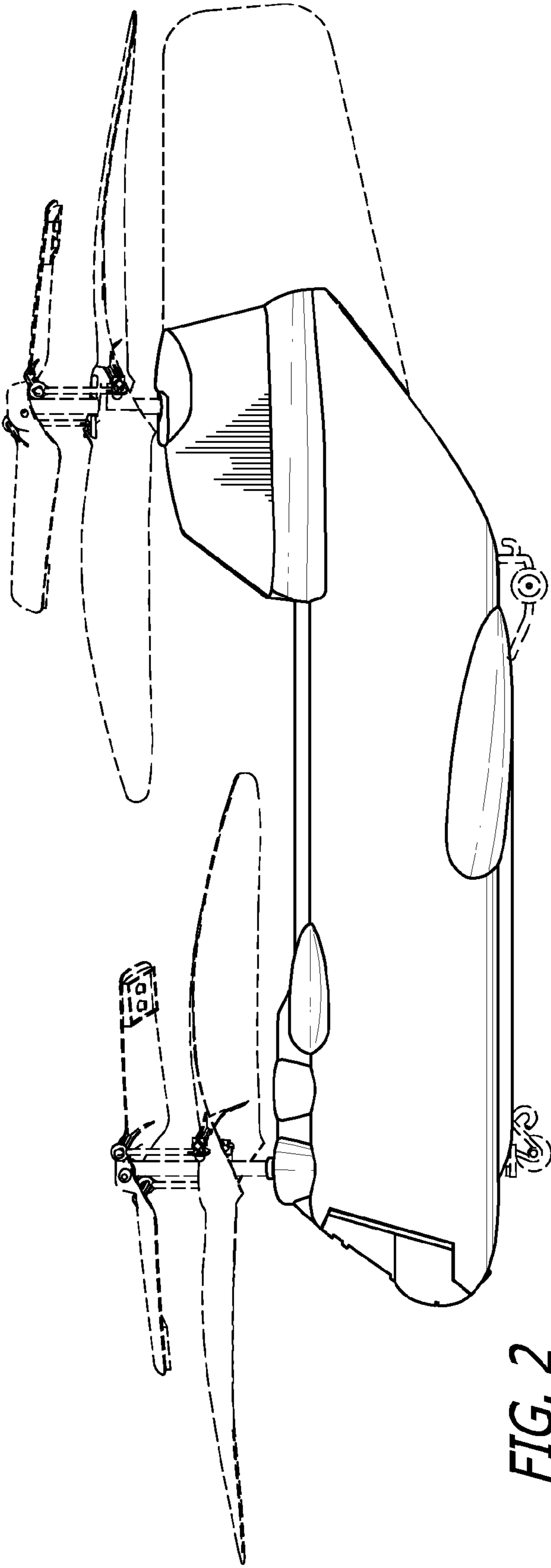


FIG. 2

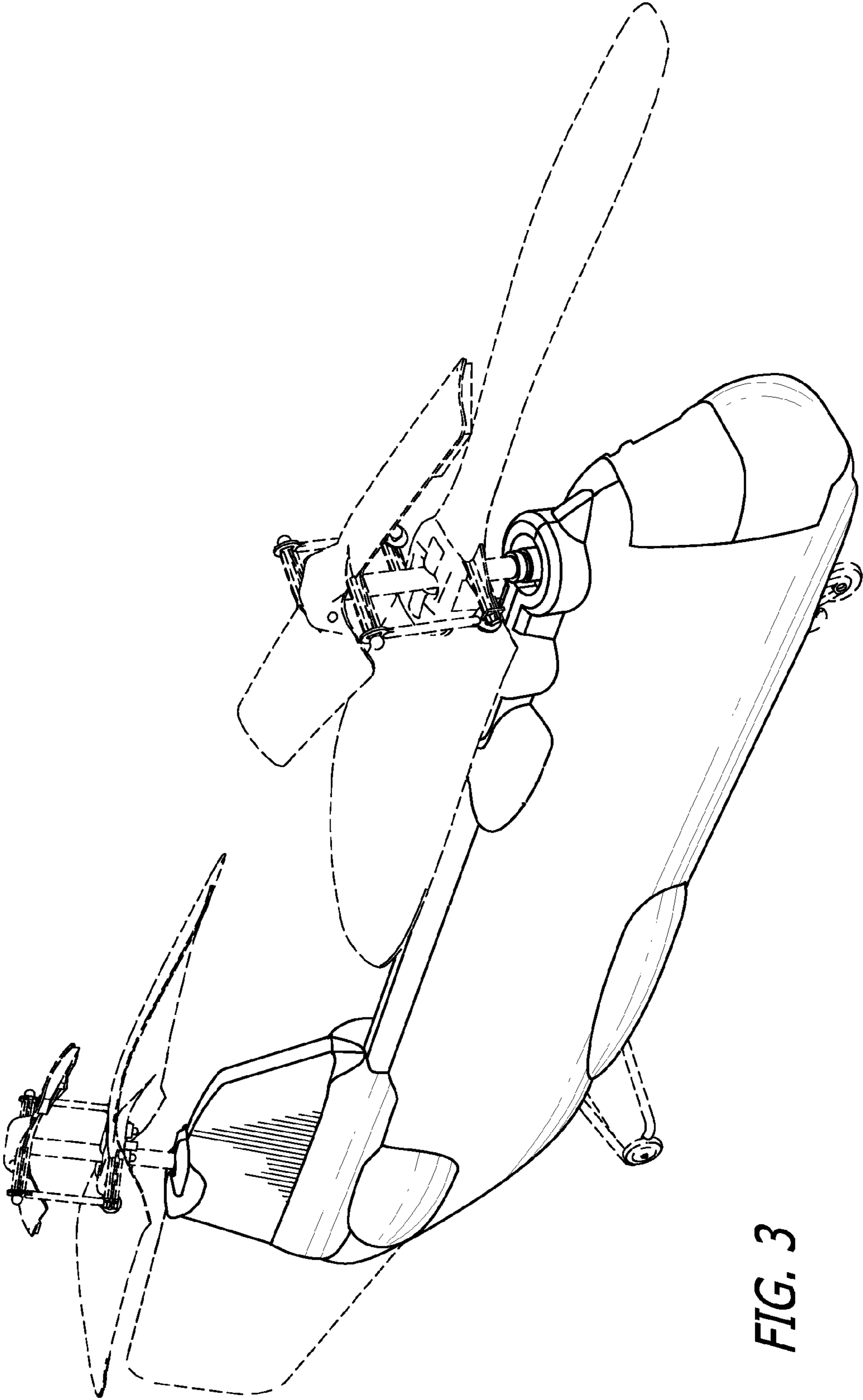


FIG. 3

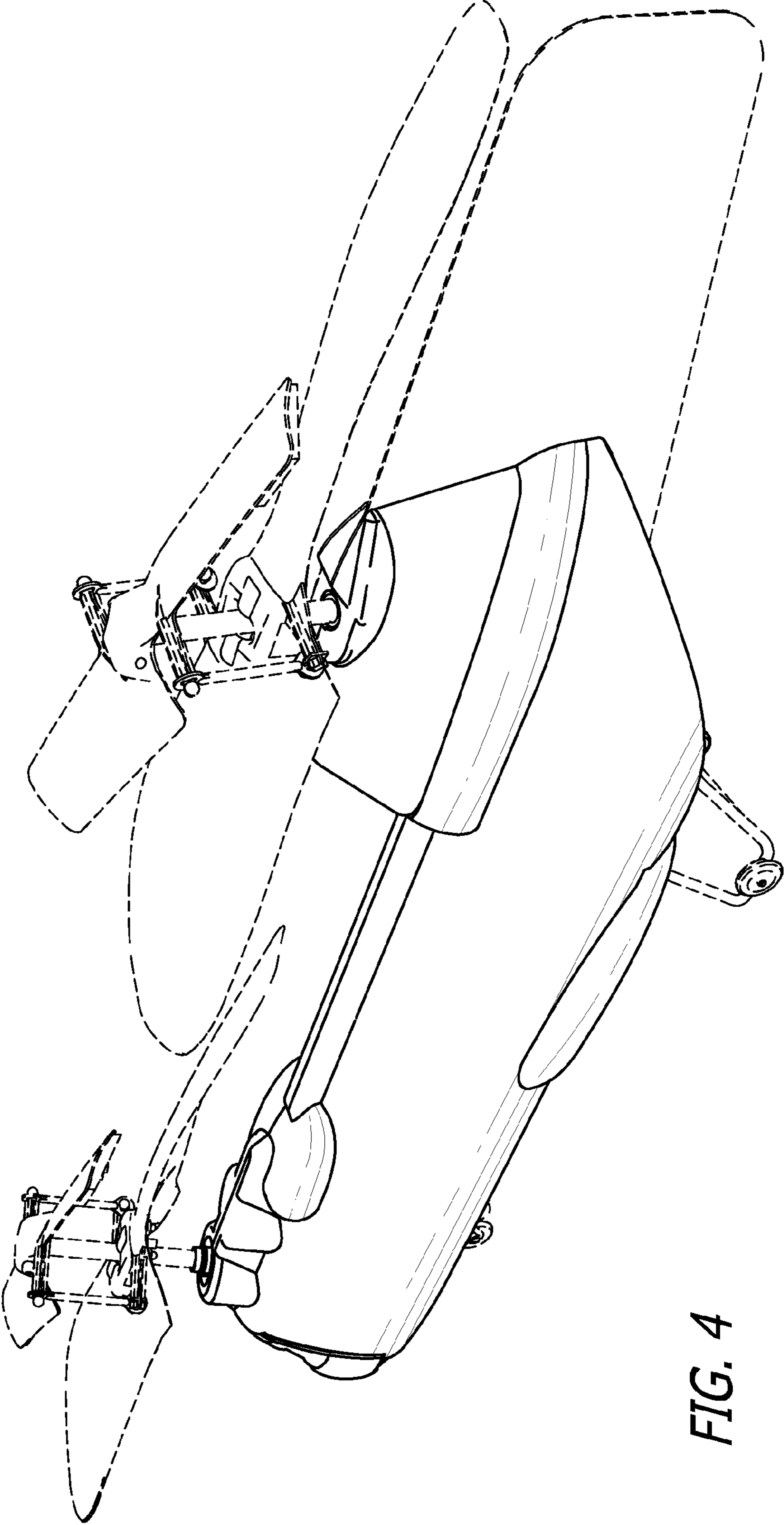


FIG. 4