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(12) **United States Design Patent**  
**Liao**

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(54) **MULTI-FUNCTION CONVERTER**  
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(72) Inventor: **Zhuowen Liao**, Shenzhen (CN)  
(73) Assignee: **Gopod Group Ltd.** (CN)  
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(30) **Foreign Application Priority Data**

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(52) **U.S. Cl.**  
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(58) **Field of Classification Search**  
USPC ... D14/434, 433, 435, 435.1, 356, 357, 358,  
D14/440, 447, 251-253, 432, 451, 452,  
D14/454, 217, 240, 299, 496, 171;  
D13/103, 107, 108, 184, 110, 123, 133,  
D13/135; D21/333  
CPC ..... G06F 1/1632; G06F 13/00; G06F 13/38;  
G06F 13/382; G06F 13/385; G06F  
13/387; G06F 3/065; G06F 9/541; G06F  
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H01R 27/00; H01R 13/512; H01R 13/62;  
H04R 5/04

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

6,722,917 B2 \* 4/2004 Huang ..... H01R 13/6658  
439/501  
6,724,615 B2 \* 4/2004 Kambayashi ..... 361/679.4  
D515,545 S \* 2/2006 Griffin ..... D14/155  
D531,619 S \* 11/2006 Chau ..... D14/217

D531,991 S \* 11/2006 Chau ..... D14/217  
D534,896 S \* 1/2007 Lin ..... D14/188  
D537,036 S \* 2/2007 Chen ..... D14/433  
D537,807 S \* 3/2007 Griffin ..... D14/155  
D550,196 S \* 9/2007 Griffin ..... D14/155

(Continued)

**FOREIGN PATENT DOCUMENTS**

CN 209658562 U \* 11/2019 ..... H01R 31/06

**OTHER PUBLICATIONS**

Multifunction converter. (Design—©Questel) orbit.com. [online PDF] 26 pgs. Print Dates Range from Nov. 13, 2018 through Jun. 4, 2019. [retrieved Jan. 21, 2020] <https://sobjprd.questel.fr/export/QPTUJ214/pdf2/89536303-1a61-4085-a323-d5b94ac36dd4-195341.pdf>.\*

*Primary Examiner* — Marie D. Fast Horse

(57) **CLAIM**

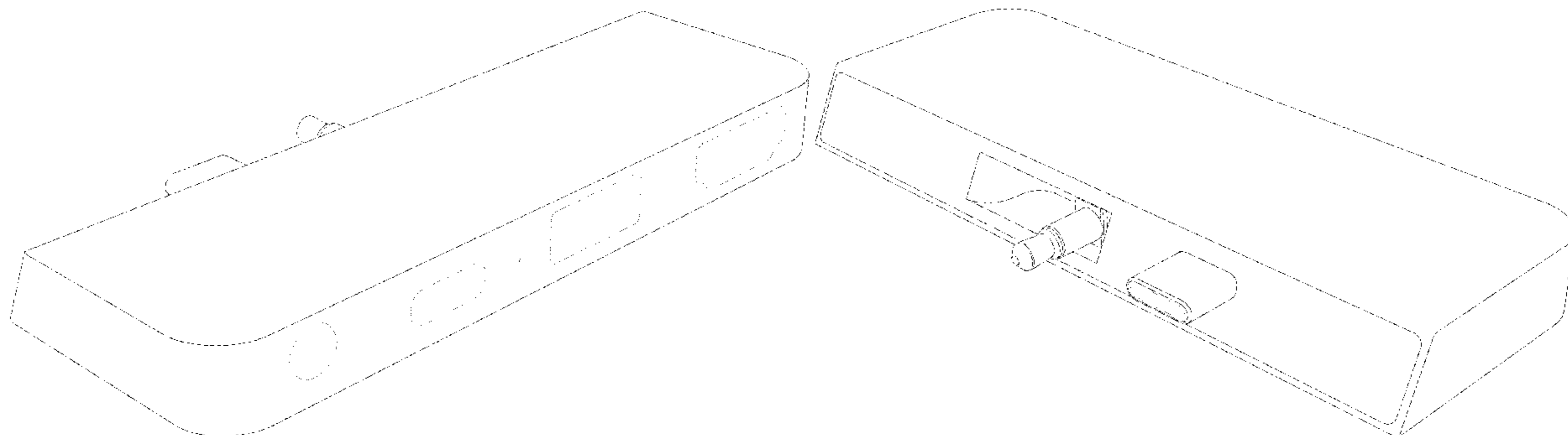
The ornamental design for a multi-function converter, as shown and described.

**DESCRIPTION**

FIG. 1 is a top view of a multi-function converter showing my new design;  
FIG. 2 is a left side view thereof;  
FIG. 3 is a right side view thereof;  
FIG. 4 is a bottom view thereof;  
FIG. 5 is a front view thereof;  
FIG. 6 is a rear view thereof;  
FIG. 7 is a top, front, left side perspective view thereof;  
FIG. 8 is a top, front, right side perspective view thereof;  
and,  
FIG. 9 is a top, front, right side perspective view of the multi-function converter showing in FIGS. 1-8 in a stowed configuration.

The broken lines shown in the drawings illustrate portions of the multi-function converter that form no part of the claimed design.

**1 Claim, 9 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D560,165 S \* 1/2008 Matityahu ..... D13/133  
 D560,166 S \* 1/2008 Andre ..... D13/133  
 D567,800 S \* 4/2008 Andre ..... D14/217  
 D570,830 S \* 6/2008 Sukeguchi ..... D14/155  
 D586,295 S \* 2/2009 Zhao ..... D13/133  
 7,503,808 B1 \* 3/2009 O'Shea ..... H01R 31/065  
 439/639  
 D596,160 S \* 7/2009 Andre ..... D14/217  
 D597,077 S \* 7/2009 Brandenburg ..... D14/217  
 D619,570 S \* 7/2010 Tong ..... D13/133  
 8,105,108 B2 \* 1/2012 Vroom ..... H01R 13/512  
 439/540.1  
 8,419,479 B2 \* 4/2013 Vroom ..... H01R 13/512  
 361/679.45  
 D692,024 S \* 10/2013 Seong ..... D14/496  
 D709,892 S \* 7/2014 Lui ..... D14/433  
 8,882,545 B2 \* 11/2014 Vroom ..... H01R 13/512  
 439/639  
 D750,083 S \* 2/2016 Chow ..... D14/434  
 D800,730 S \* 10/2017 Liao ..... D14/433

D807,290 S \* 1/2018 Liao ..... D13/110  
 D813,875 S \* 3/2018 Liao ..... D14/434  
 D830,366 S \* 10/2018 Turksu ..... D14/433  
 D839,876 S \* 2/2019 Turksu ..... D14/435.1  
 10,248,598 B2 \* 4/2019 Chen ..... G06F 13/385  
 D854,019 S \* 7/2019 Liao ..... D14/434  
 D855,054 S \* 7/2019 Turksu ..... D14/433  
 D855,616 S \* 8/2019 Chin ..... D14/433  
 D862,474 S \* 10/2019 Liu ..... D14/433  
 D864,205 S \* 10/2019 Wang ..... D14/433  
 D864,208 S \* 10/2019 Duan ..... D14/433  
 D864,964 S \* 10/2019 Lyu ..... D14/433  
 D864,967 S \* 10/2019 Liu ..... D14/434  
 D866,557 S \* 11/2019 Xiong ..... D14/433  
 D869,467 S \* 12/2019 Lin ..... D14/434  
 2003/0216069 A1 \* 11/2003 Huang ..... G06F 1/266  
 439/105  
 2012/0094527 A1 \* 4/2012 Vroom ..... H01R 13/512  
 439/540.1  
 2014/0326845 A1 \* 11/2014 Lui ..... H01R 13/6315  
 248/346.03  
 2016/0085272 A1 \* 3/2016 Chien ..... G06F 13/4022  
 361/679.4

\* cited by examiner

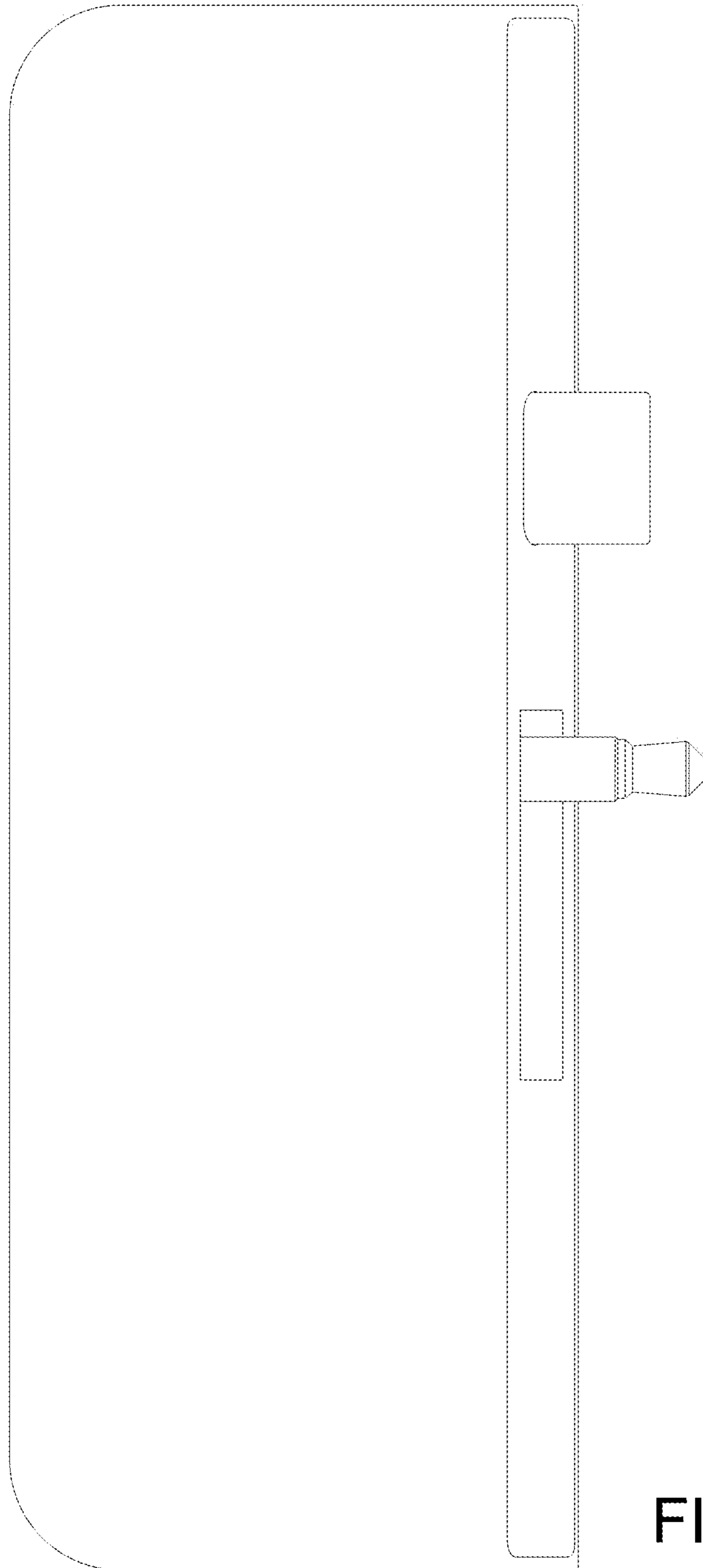


FIG. 1

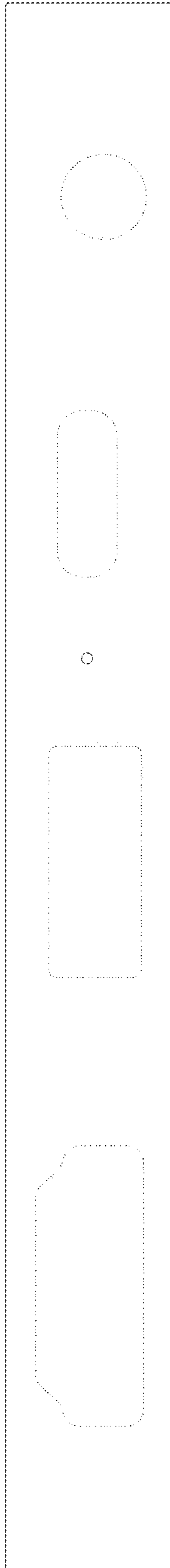


FIG. 2

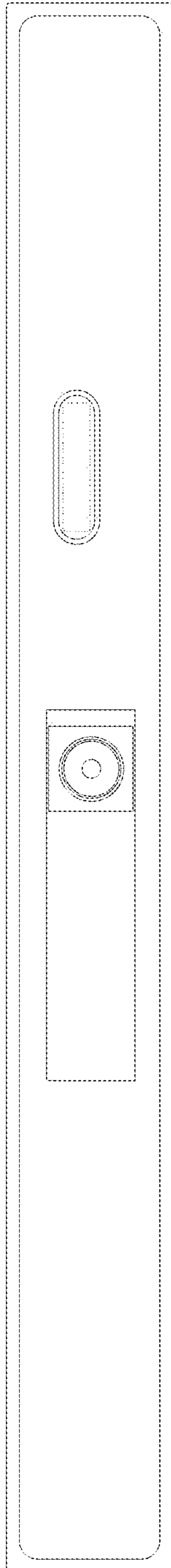


FIG. 3

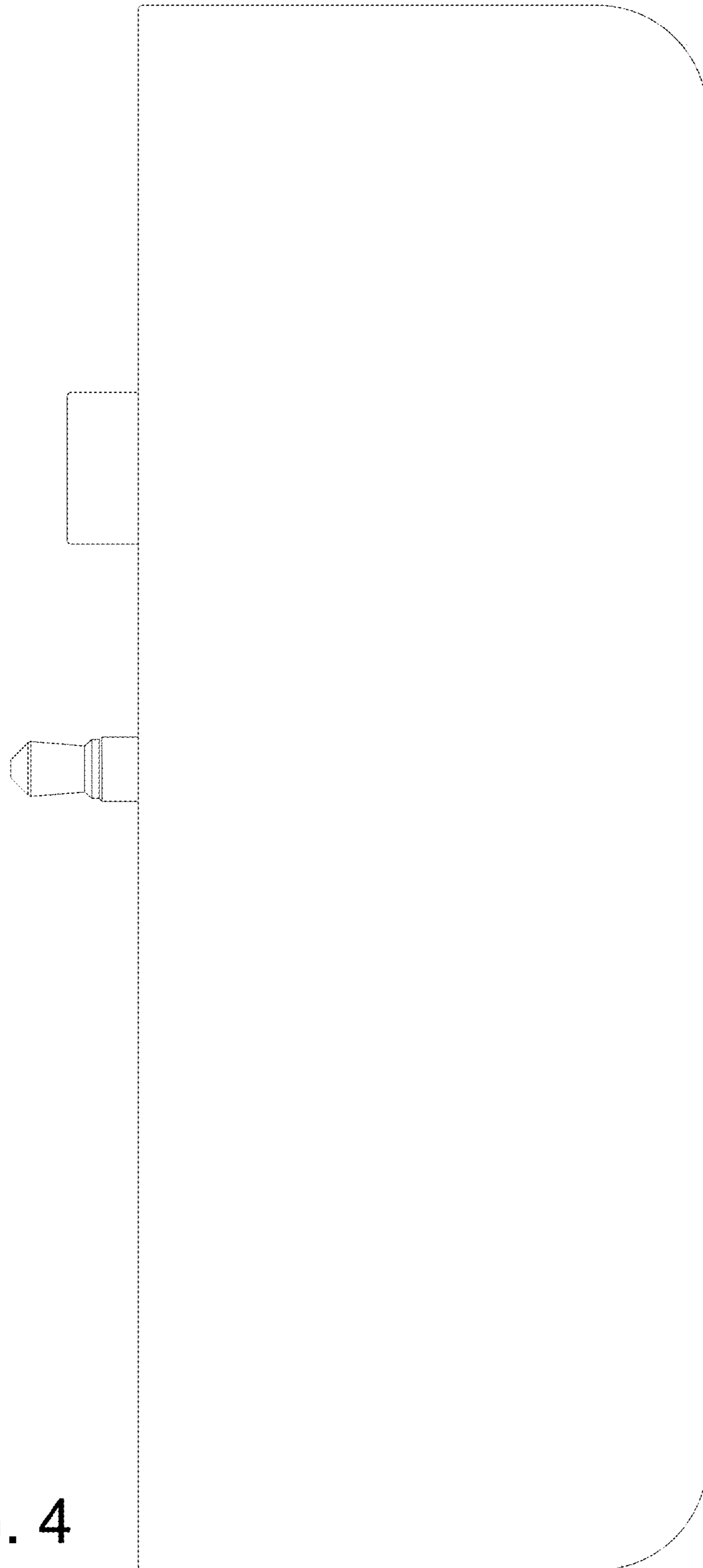


FIG. 4



FIG. 5



FIG. 6



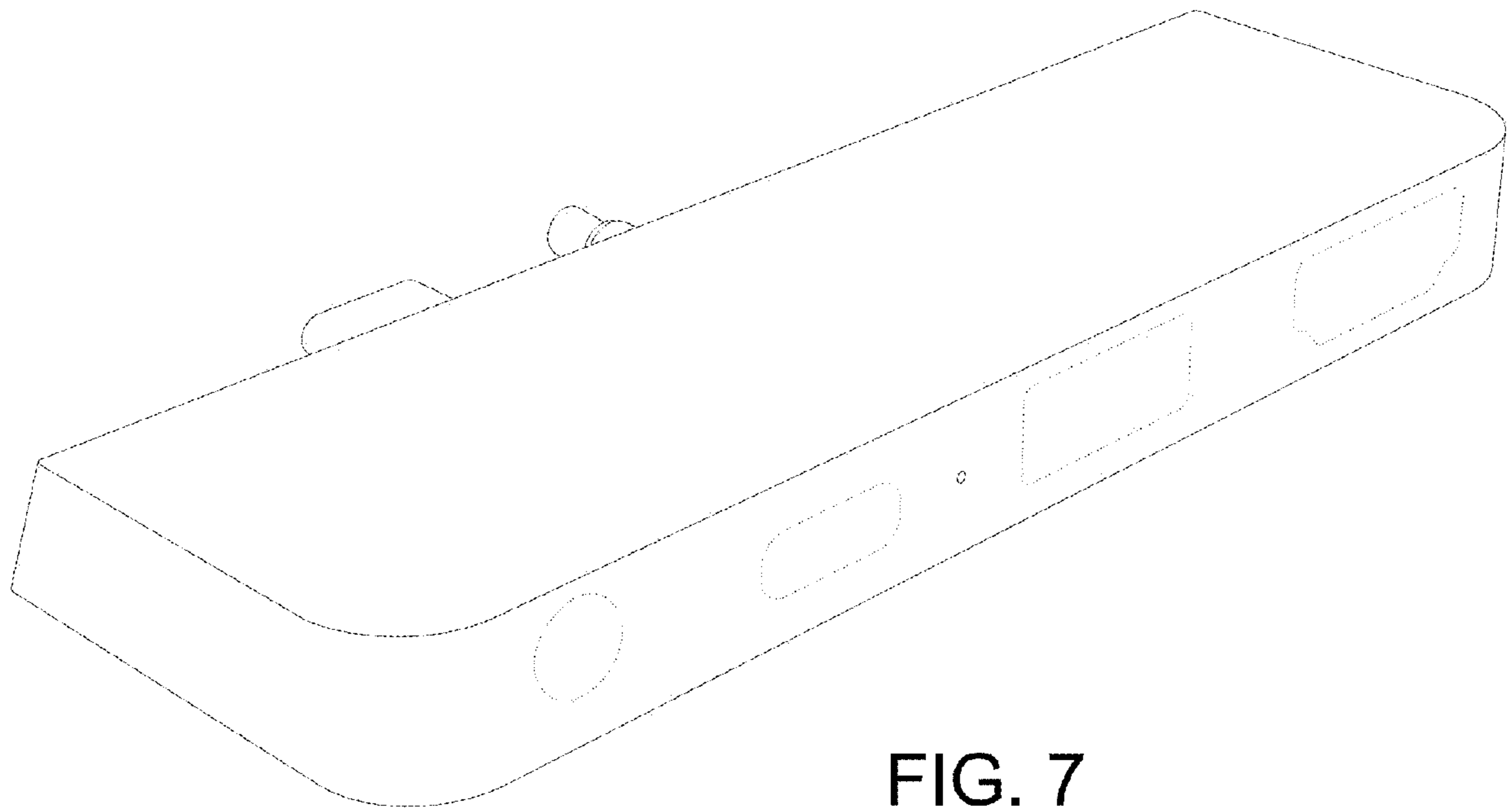


FIG. 7

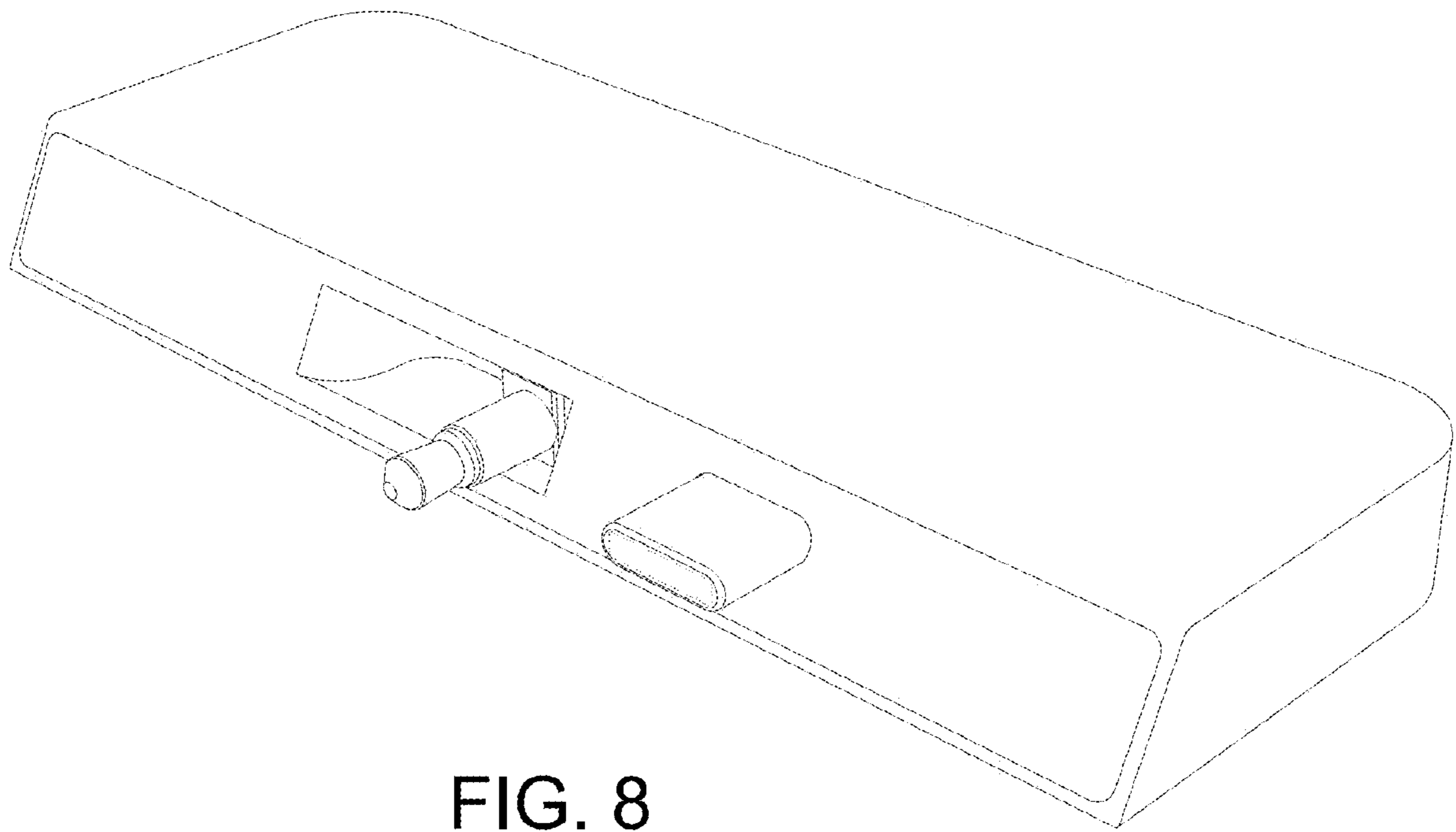


FIG. 8

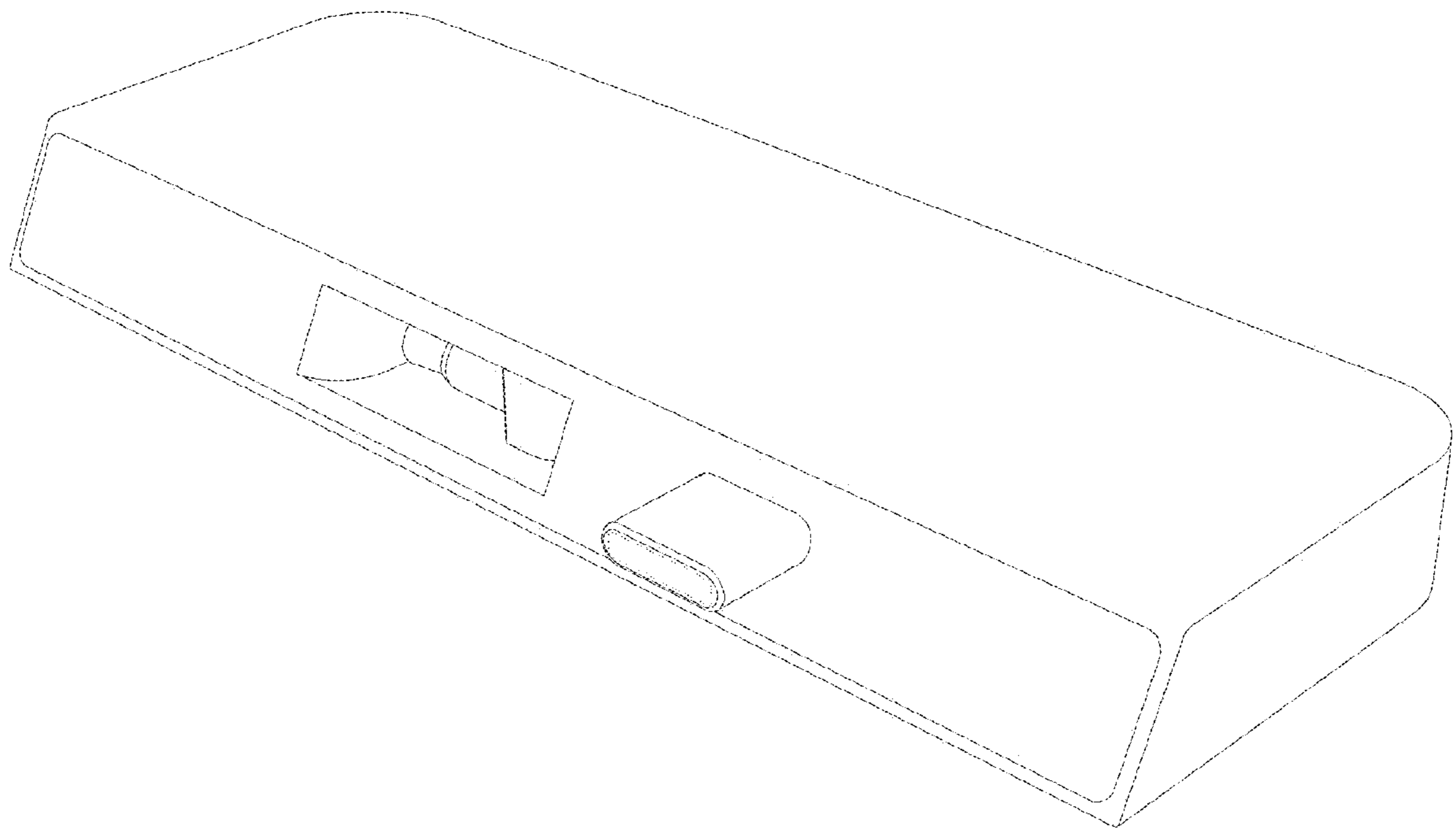


FIG. 9