

US00D932526S

(12) **United States Design Patent** (10) **Patent No.:** **US D932,526 S**  
**Son** (45) **Date of Patent:** **\*\* Oct. 5, 2021**

(54) **MACHINE CENTER**  
(71) Applicant: **DOOSAN MACHINE TOOLS CO., LTD.**, Chang-Won-si (KR)  
(72) Inventor: **Heedong Son**, Changwon-si (KR)  
(73) Assignee: **DOOSAN MACHINE TOOLS CO., LTD.**, Chang-Won-si (KR)

D301,890 S \* 6/1989 Silbersky ..... D15/145  
D311,775 S \* 10/1990 Brown ..... D25/1  
D334,985 S \* 4/1993 D'Agostino ..... D25/1  
D336,479 S \* 6/1993 Shuji Shinagawa ..... D15/135  
D455,456 S \* 4/2002 Angelbeck ..... D18/57  
D459,390 S \* 6/2002 Teodorescu ..... D18/53  
D495,723 S \* 9/2004 Kawamura ..... D15/127  
D543,222 S \* 5/2007 Pester ..... D15/145  
D544,534 S \* 6/2007 Reece ..... D18/53  
D548,754 S \* 8/2007 Itabashi ..... D15/122  
D548,755 S \* 8/2007 Takeshima ..... D15/122

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

(Continued)

(21) Appl. No.: **29/697,765**

**OTHER PUBLICATIONS**

(22) Filed: **Jul. 11, 2019**

Doosan Machine Tools, PUMA 1000 Series, (site visited Jan. 13, 2021), Doosanmachinetools.us, URL:<https://www.doosanmachinetools.us/turning-centers/horizontal-with-milling/puma-1000> (Year: 2021).\*

(30) **Foreign Application Priority Data**

Jan. 11, 2019 (KR) ..... 30-2019-0001696

(51) **LOC (13) Cl.** ..... **15-09**

(52) **U.S. Cl.**  
USPC ..... **D15/122; D15/127**

(58) **Field of Classification Search**  
USPC ..... D15/122, 145-147, 199, 127; D18/53, D18/51, 59, 35.1, 99; D20/1, 4, 5, 8; D23/315; D24/159, 231, 234; D25/16, D25/23, 36  
CPC ..... B23K 23/00; B23K 23/02; B23K 23/706; B29C 67/0085; B23Q 3/10; B23Q 1/03; B23Q 17/00; B23Q 17/007; B23Q 17/24; B23Q 11/0891; B23Q 3/15713; B23Q 3/15513; B23B 5/08; B23B 23/00; B23B 3/06; B23B 29/04; B23B 27/007; B22D 11/00; B22D 33/00

See application file for complete search history.

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

D163,351 S \* 5/1951 Bartholomew ..... D12/102  
D175,225 S \* 7/1955 Lane ..... D20/4  
D197,330 S \* 1/1964 Sundberg ..... D12/104

*Primary Examiner* — Calvin E Vansant  
*Assistant Examiner* — Mark T. Philipps  
(74) *Attorney, Agent, or Firm* — STIP Law Group, LLC

(57) **CLAIM**

The ornamental design for machine center, as shown and described.

**DESCRIPTION**

FIG. 1 is a perspective view of the machine center, showing the present design.

FIG. 2 is a front view thereof.

FIG. 3 is a rear view thereof.

FIG. 4 is a left side view thereof.

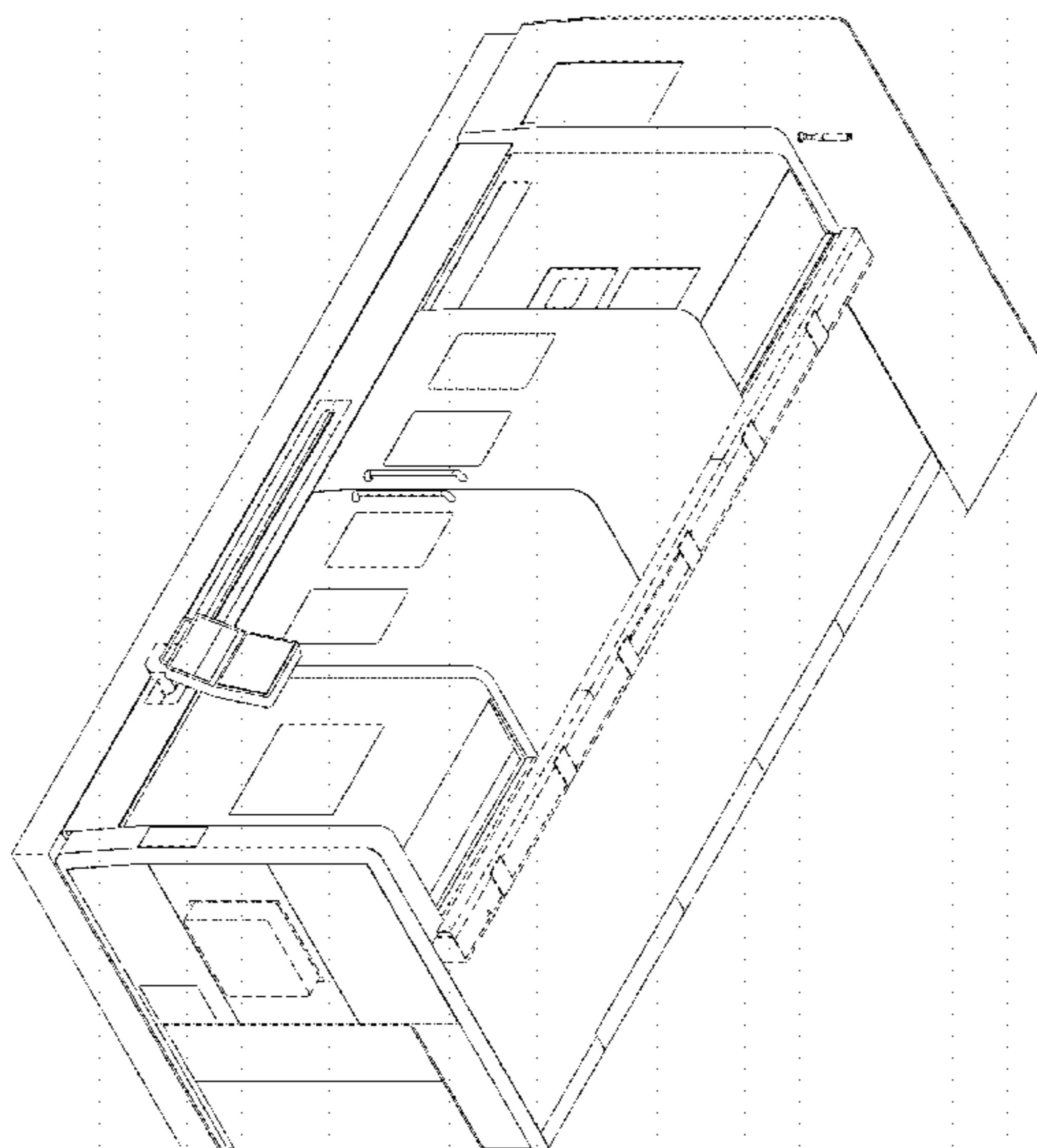
FIG. 5 is a right side view thereof; and,

FIG. 6 is a top view of thereof.

The machine center of the present design is a large-sized heavy item, and the bottom view forms no part of the claimed design and is therefore omitted.

The broken lines in the figures are used to show portions of the machine center that form no part of the claimed design.

**1 Claim, 6 Drawing Sheets**



(56)

References Cited

U.S. PATENT DOCUMENTS

D559,283 S \* 1/2008 Takeda ..... D15/127  
 D559,871 S \* 1/2008 Kittaka ..... D15/122  
 D614,233 S \* 4/2010 Kemmochi ..... D18/53  
 D619,166 S \* 7/2010 Ishizawa ..... D18/53  
 D635,596 S \* 4/2011 Hiroshima ..... D15/122  
 D637,631 S \* 5/2011 Hiroshima ..... D15/122  
 D650,417 S \* 12/2011 Brown ..... D18/53  
 D651,620 S \* 1/2012 Schindler ..... D15/122  
 D654,518 S \* 2/2012 Miyake ..... D15/122  
 D659,174 S \* 5/2012 Mueller ..... D15/122  
 D659,728 S \* 5/2012 Mueller ..... D15/122  
 D664,570 S \* 7/2012 Mueller ..... D15/122  
 D666,666 S \* 9/2012 Brown ..... D18/53  
 D667,031 S \* 9/2012 Mueller ..... D15/122  
 D667,032 S \* 9/2012 Egami ..... D15/122  
 D673,212 S \* 12/2012 Okamoto ..... D18/53  
 D676,881 S \* 2/2013 Mueller ..... D15/122  
 D683,771 S \* 6/2013 Shimano ..... D15/122  
 D690,331 S \* 9/2013 Kitamura ..... D15/122  
 D690,745 S \* 10/2013 Koide ..... D15/122  
 D691,903 S \* 10/2013 Tong ..... D10/46  
 D693,859 S \* 11/2013 Kitamura ..... D15/122  
 D694,320 S \* 11/2013 Landa ..... D18/53  
 D696,315 S \* 12/2013 Schmid ..... D15/122  
 D700,638 S \* 3/2014 Shou ..... D15/123  
 D711,948 S \* 8/2014 Son ..... D15/199  
 D716,351 S \* 10/2014 Kitamura ..... D15/122  
 D718,353 S \* 11/2014 Kato ..... D15/122  
 D745,070 S \* 12/2015 Schindler ..... D15/122  
 D753,734 S \* 4/2016 Hanschen ..... D15/122  
 D757,170 S \* 5/2016 Rafa ..... D18/53  
 D759,133 S \* 6/2016 Kitamura ..... D15/122  
 D759,738 S \* 6/2016 Schonherr ..... D15/122  
 D762,748 S \* 8/2016 Schonherr ..... D15/122

D763,191 S \* 8/2016 Shatek ..... D13/112  
 9,415,474 B2 \* 8/2016 Lee ..... B23Q 11/00  
 D778,329 S \* 2/2017 Grobe ..... D15/122  
 D780,256 S \* 2/2017 Clark, III ..... D18/53  
 D791,204 S \* 7/2017 Hynek ..... D15/131  
 D797,822 S \* 9/2017 Grobe ..... D15/122  
 D798,917 S \* 10/2017 Gallo ..... D15/122  
 D811,450 S \* 2/2018 Hynek ..... D15/130  
 D816,129 S \* 4/2018 Albrecht ..... D15/122  
 D816,741 S \* 5/2018 Nicaise ..... D15/122  
 D829,925 S \* 10/2018 Labesque ..... D25/33  
 D861,745 S \* 10/2019 Schmid ..... D15/122  
 D866,621 S \* 11/2019 Gallo ..... D15/122  
 D868,854 S \* 12/2019 Willey ..... D15/122  
 D873,873 S \* 1/2020 Sollberger ..... D15/122  
 D873,876 S \* 1/2020 Bellante ..... D15/145  
 D875,826 S \* 2/2020 Zanzotti ..... D18/53  
 D880,002 S \* 3/2020 Lucas ..... D25/33  
 D880,546 S \* 4/2020 Hehl ..... D15/135  
 D884,754 S \* 5/2020 Andre ..... D15/122  
 2009/0121113 A1 \* 5/2009 Yasuda ..... B23Q 1/017  
 248/429  
 2013/0061726 A1 \* 3/2013 Katsu ..... B23B 5/08  
 82/1.11  
 2014/0069609 A1 \* 3/2014 Caihuzac ..... B23Q 11/128  
 165/67  
 2014/0319746 A1 \* 10/2014 Kozawa ..... B23Q 3/10  
 269/14  
 2015/0336229 A1 \* 11/2015 Nishida ..... B23Q 11/0891  
 414/222.07  
 2016/0325868 A1 \* 11/2016 Bonneville ..... B26F 1/38  
 2018/0361522 A1 \* 12/2018 Fornasero ..... B23Q 11/0891  
 2019/0022811 A1 \* 1/2019 Roettgen ..... B23Q 11/0891  
 2019/0217436 A1 \* 7/2019 Takada ..... B23C 1/06  
 2020/0130123 A1 \* 4/2020 Iguchi ..... B25J 15/0491

\* cited by examiner

FIG. 1

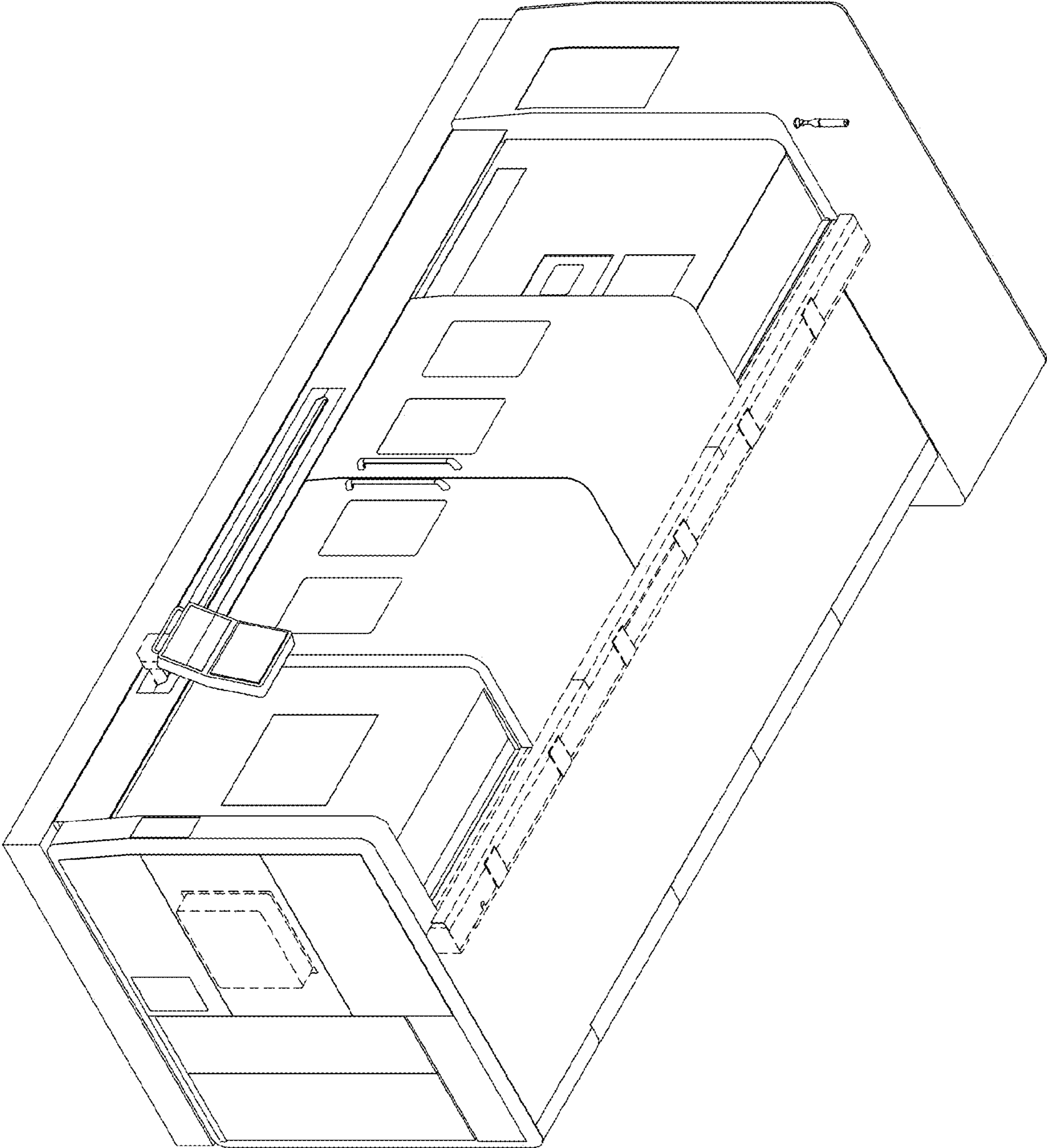


FIG. 2

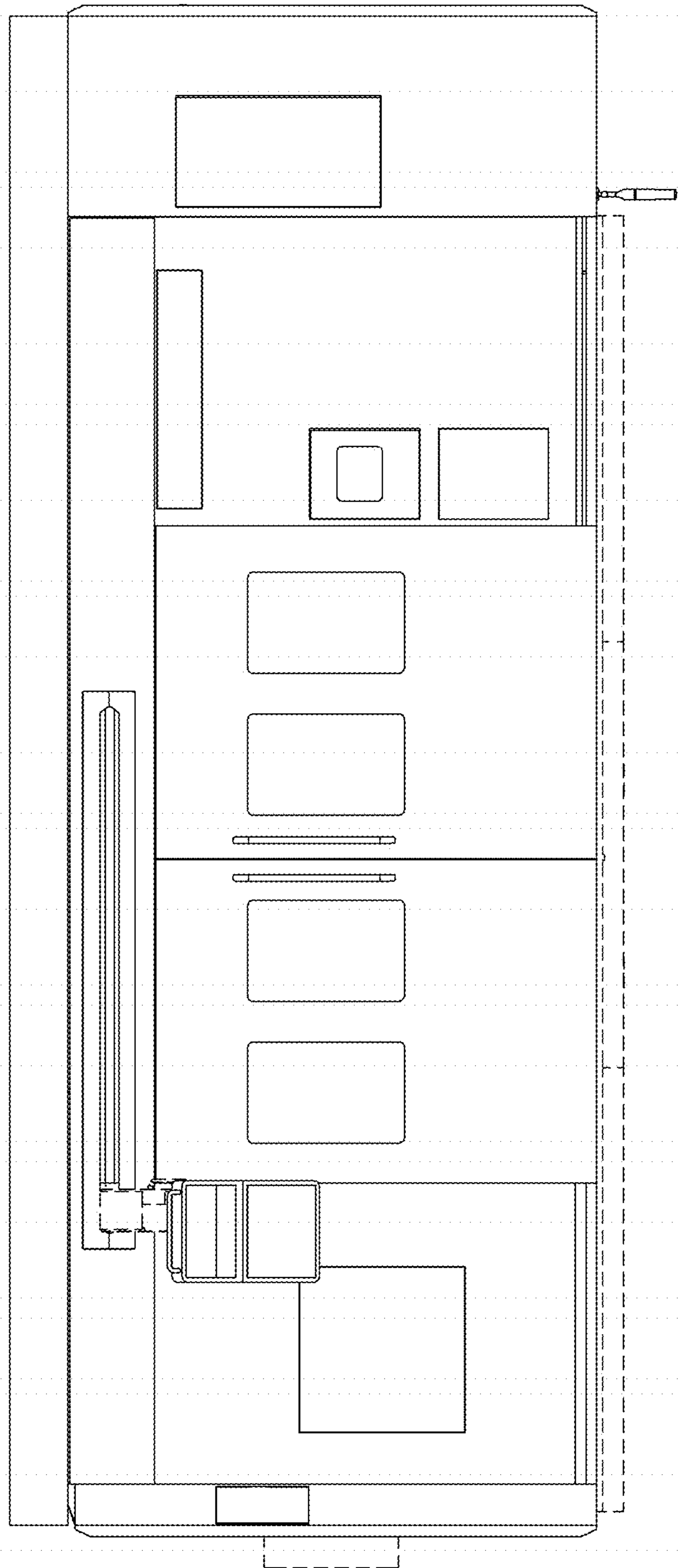


FIG. 3

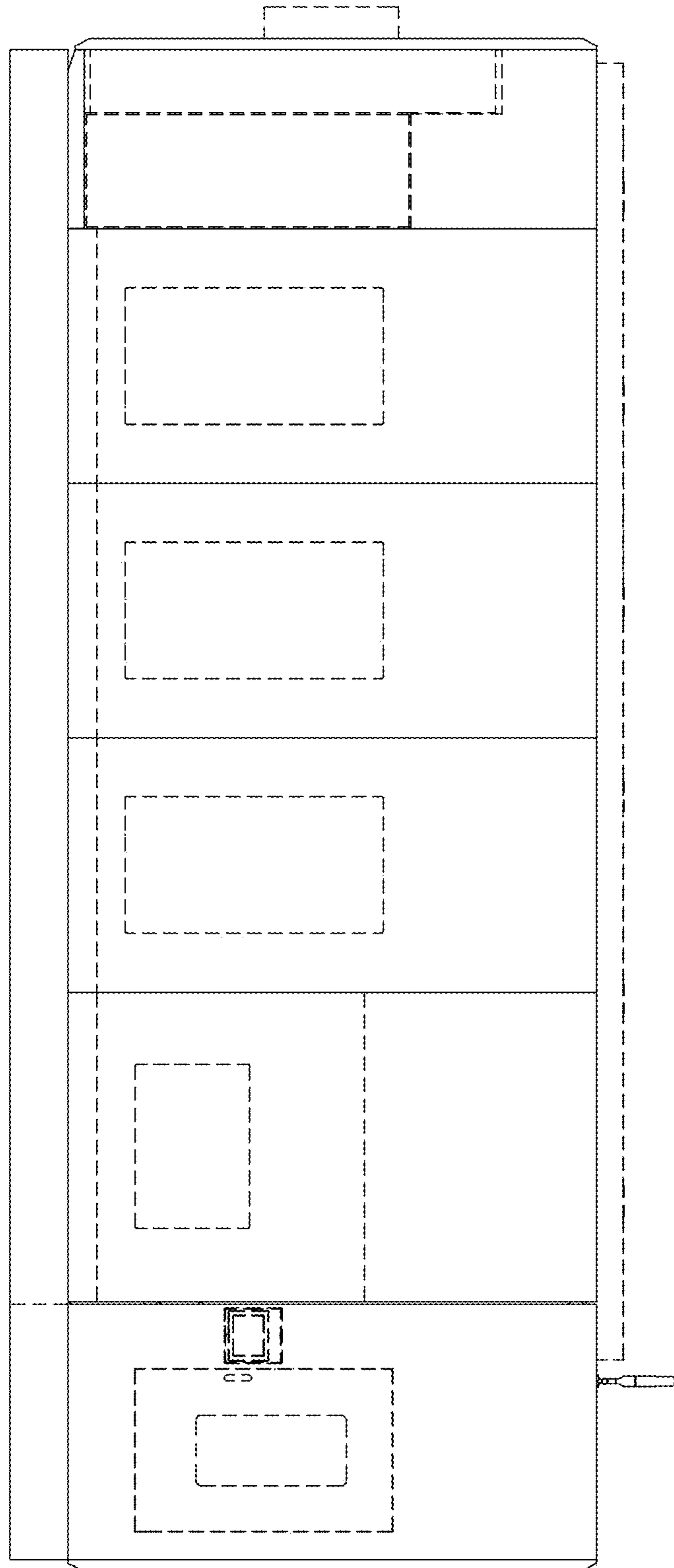


FIG. 4

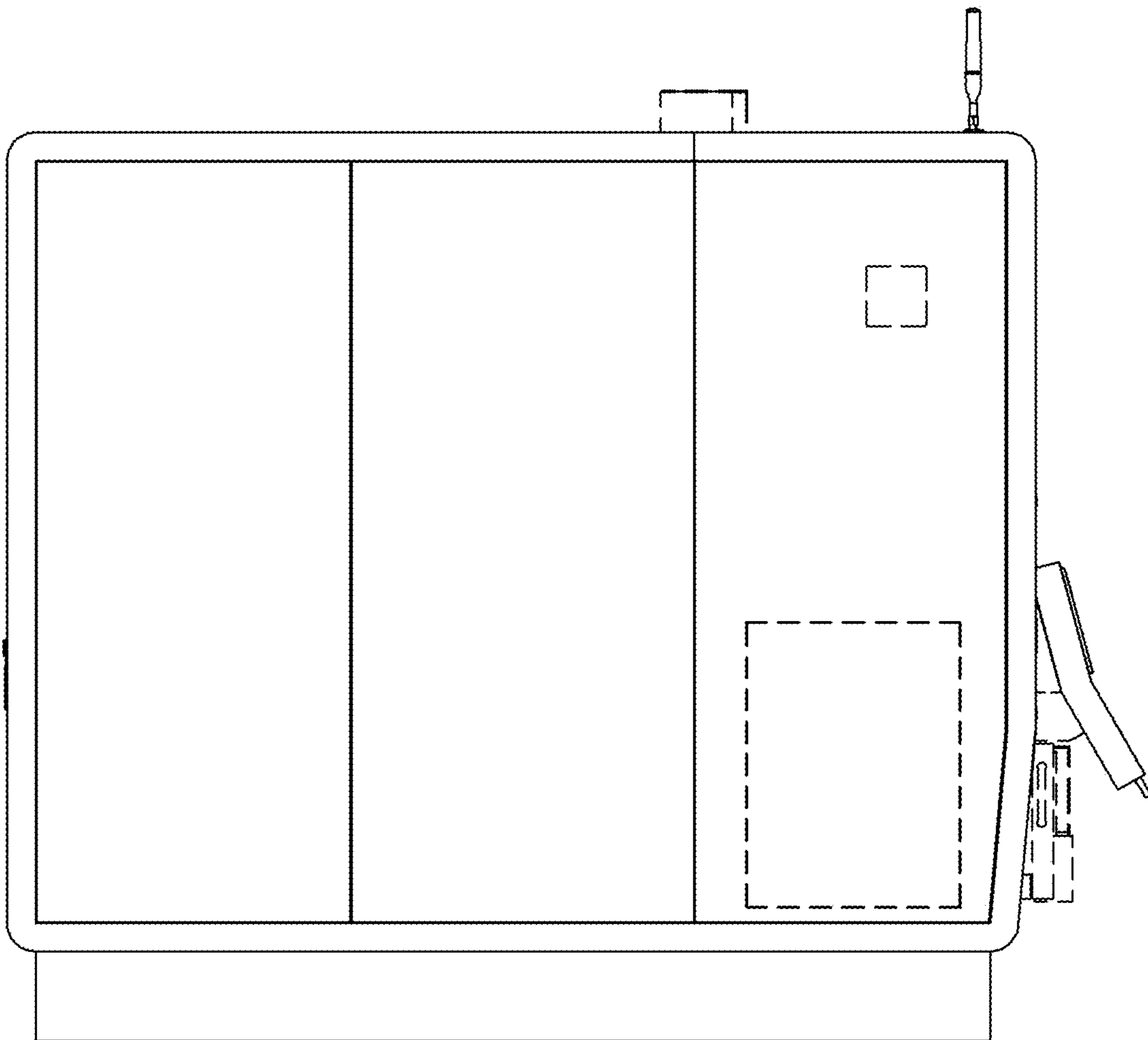


FIG. 5

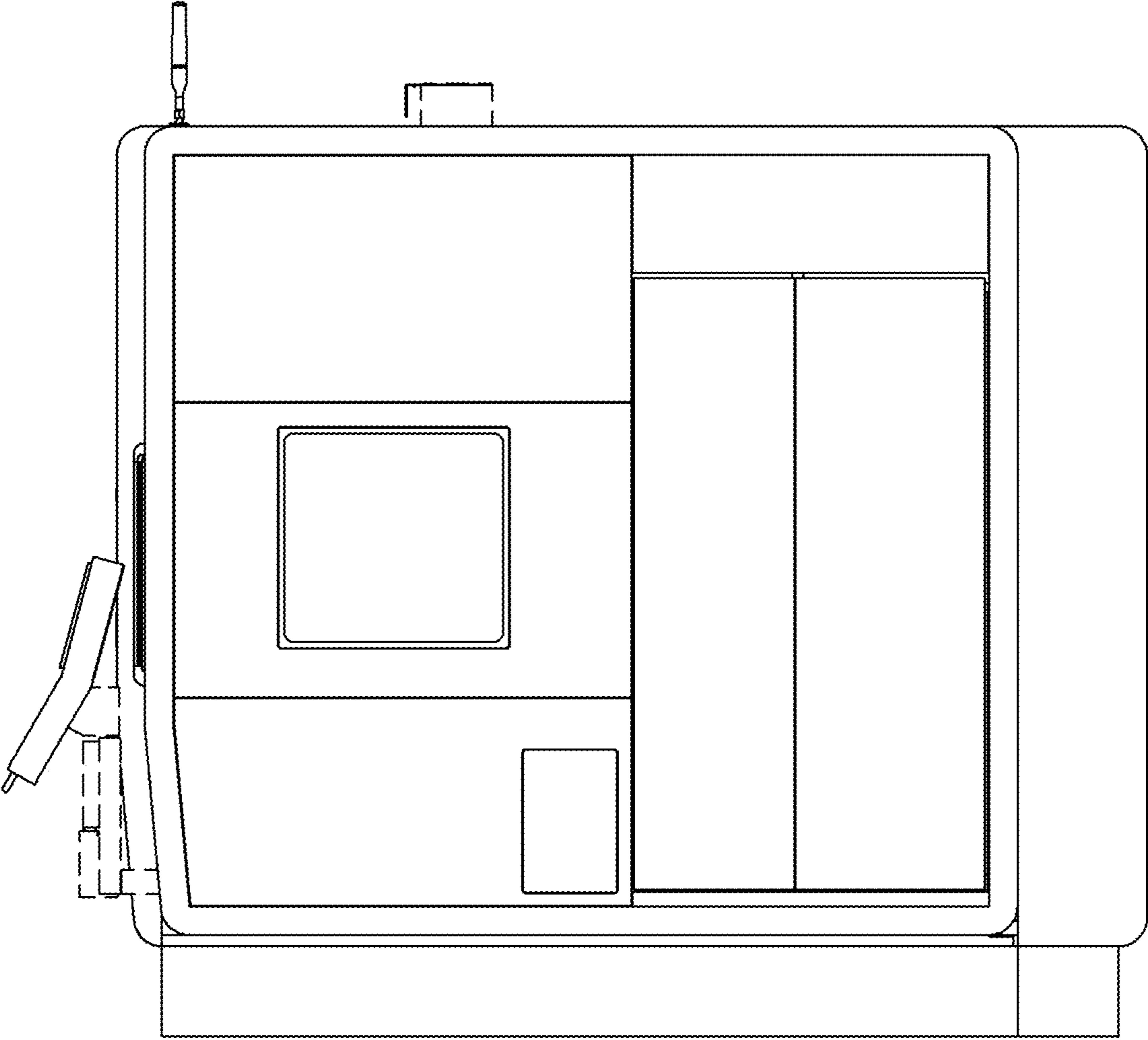


FIG. 6

