US00D976992S

(12) United States Design Patent

Warner

(10) Patent No.: US D976,992 S
(45) Date of Patent: ** Jan. 31, 2023

(54) **CAMERA CALIBRATION TOOL**

(71) Applicant: **Lucasfilm Entertainment Company Ltd.**, San Francisco, CA (US)

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(73) Assignee: **LUCASFILM ENTERTAINMENT COMPANY LTD.**, San Francisco, CA (US)

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

(21) Appl. No.: **29/735,744**

(22) Filed: **May 22, 2020**

(51) **LOC (14) Cl.** **16-05**

(52) **U.S. Cl.**
USPC **D16/242**

(58) **Field of Classification Search**
USPC D8/300, 303, 306, 307, 321, 323, 324, D8/325, 349, 363, 373, 394; D14/313, D14/316, 317, 324, 341, 372, 375, 376, D14/377, 432, 203.3, 203.5, 482, 224, D14/217, 229, 250, 251, 345, 253; D16/200, 204, 206, 208, 211, 213–219,
(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,304,380 A * 12/1981 Clusener F16M 11/043 248/662
4,660,791 A * 4/1987 Lisak F16M 11/10 248/141

(Continued)

FOREIGN PATENT DOCUMENTS

CN 305201619 * 6/2019
CN 305250735 * 7/2019

(Continued)

OTHER PUBLICATIONS

MicW Professional Calibration Device for Type-2 Mics, product available unknown [online], no video/pictured review [online], [site visited Feb. 17, 2022]:URL:<https://www.bhphotovideo.com/c/product/1409226-REG/micw_ca114_ professional_calibration_device_for.html> (Year: 2022).*

(Continued)

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(57) **CLAIM**

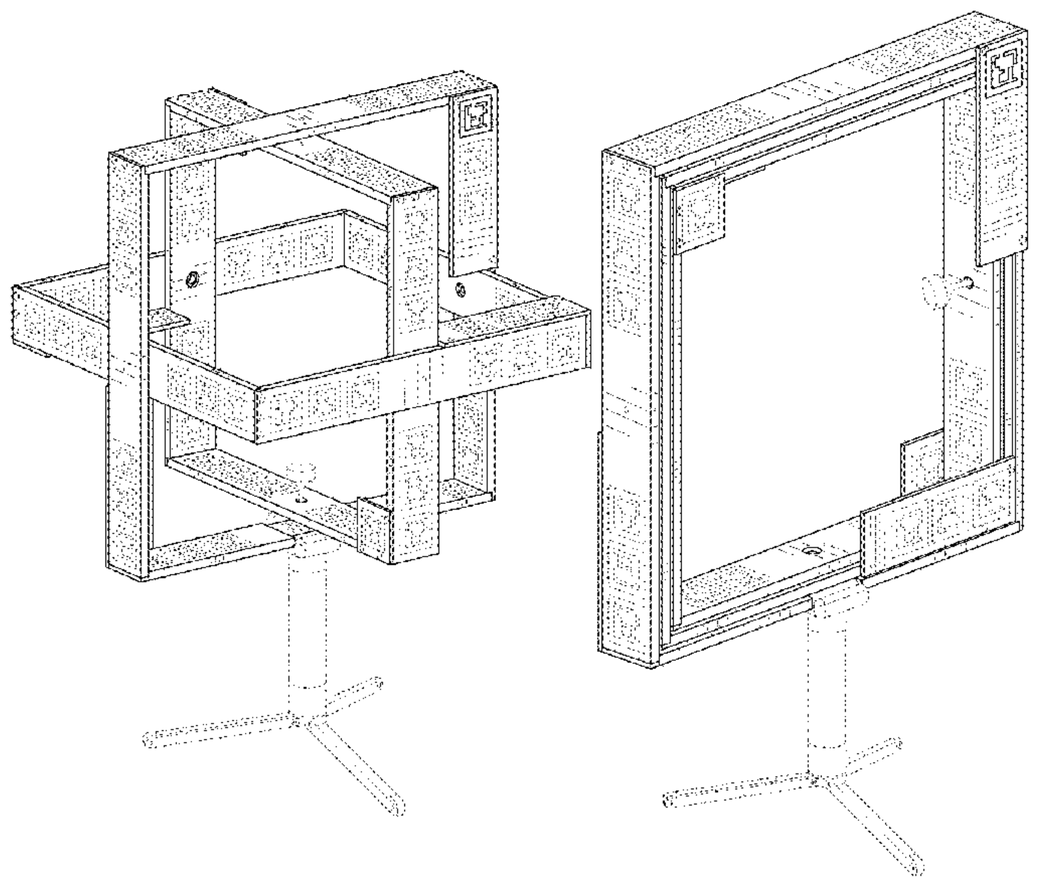
The ornamental design for a camera calibration tool, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of a camera calibration tool showing my new design arranged in a first position;
FIG. **2** is a left side elevational view thereof;
FIG. **3** is a right side elevational view thereof;
FIG. **4** is a front view thereof;
FIG. **5** is a rear view thereof;
FIG. **6** is a top plan view thereof;
FIG. **7** is a bottom plan view thereof;
FIG. **8** is a perspective view of the camera calibration tool of FIG. **1**, shown arranged in a second position;
FIG. **9** is a left side elevational view thereof;
FIG. **10** is a right side elevational view thereof;
FIG. **11** is a front view thereof;
FIG. **12** is a rear view thereof;
FIG. **13** is a top plan view thereof; and,
FIG. **14** is a bottom plan view thereof.

The broken lines in the figures represent unclaimed portions of the camera calibration tool and form no part of the claimed design.

1 Claim, 14 Drawing Sheets



(58) **Field of Classification Search**
USPC D16/231, 234, 235, 236, 237–250, 136, D16/203.8, 194, 195; D21/329, 330, 331, D21/333, 385, 514; D20/10, 41–43
CPC F16M 11/00; F16M 11/04; F16M 11/06; F16M 11/08; F16M 11/10; F16M 11/12; F16M 11/14; F16M 11/18; F16M 11/20; F16M 11/28; F16M 11/041; F16M 11/105; F16M 11/2007; F16M 11/2014; F16M 11/2021; F16M 11/2028; F16M 11/2035; F16M 11/2078; F16M 13/00; F16M 13/005; F16M 13/02; F16M 13/04; F16M 13/06; F16M 2200/00; F16M 2200/04; F16M 2200/08; F16M 2200/22; F16M 2200/027; F16M 2200/041; F16M 2200/042; F16M 2200/044; F16M 2200/045; F16M 2200/047; F16M 2200/048; F16M 13/022; G01C 21/18; G03B 17/561; G03B 17/563; G03B 17/566; G03B 37/04; G03B 2215/056; B60R 2011/008; B60R 2011/0059; B60R 11/02
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,825,716	A *	5/1989	Roberts	B64G 1/244 74/5.34
D480,411	S *	10/2003	Smith	D16/242
7,050,085	B1 *	5/2006	Park	H04N 5/23238 348/E7.086
7,121,159	B2 *	10/2006	Tippett	F03G 3/00 74/5.34
7,894,661	B2 *	2/2011	Kosaka	G06T 7/80 356/13
8,199,958	B2 *	6/2012	Weir	H01M 50/20 381/345
8,498,827	B2 *	7/2013	Yost	G01P 15/08 702/41
9,199,746	B2 *	12/2015	Nagabhushan	B64G 1/286
9,398,719	B2 *	7/2016	Westby	F16M 11/18
9,413,930	B2 *	8/2016	Geerds	H04N 5/2252
D788,208	S *	5/2017	Muhlenkamp, IV	D16/242
9,851,623	B2 *	12/2017	Macmillan	G03B 37/04
10,565,737	B1 *	2/2020	Islam	G06T 7/75
10,656,206	B1 *	5/2020	Patil	G01R 31/31905
2004/0202364	A1 *	10/2004	Otani	H04N 13/246 348/E13.016
2007/0109295	A1 *	5/2007	Matsumura	G03B 15/06 345/426
2010/0245594	A1 *	9/2010	Tobie	H04N 17/002 348/188
2015/0130951	A1 *	5/2015	Olson	G06T 7/80 348/184
2015/0288951	A1 *	10/2015	Mallet	G06T 7/80 348/46
2015/0288956	A1 *	10/2015	Mallet	G01B 21/042 348/188
2017/0227841	A1 *	8/2017	Niemela	H04N 13/189
2017/0280135	A1 *	9/2017	Shroff	G06T 7/80
2018/0007245	A1 *	1/2018	Rantala	H04N 5/247
2019/0063639	A1 *	2/2019	d'Entremont	B33Y 80/00
2020/0184684	A1 *	6/2020	Ma	G06T 7/174

FOREIGN PATENT DOCUMENTS

CN	305375894	*	10/2019
CN	305454556	*	11/2019
CN	306520293	*	5/2021
DE	40108790-0001	*	4/2002
EM	003522267-0002	*	6/2016
GB	2100924	*	4/2001

OTHER PUBLICATIONS

Datacolor SpyderX Create Kit, product available unknown [online], no video/pictured review [online], [site visited Feb. 17, 2022]:URL:<https://www.bhphotovideo.com/c/product/1676181-REG/datacolor_sxd100_spyderx_create_kit.html> (Year: 2022).*
Arecont Vision Portable Black Body Calibration Tool, product available unknown [online], no video/pictured review [online], [site visited Feb. 17, 2022]:URL:<https://www.bhphotovideo.com/c/product/1564379-REG/arecont_vision_3212_9000_portable_black_body_calibration.html> (Year: 2022).*
Datacolor SpyderCUBE RAW Calibration Tool, product available unknown [online], no video/pictured review [online], [site visited Feb. 17, 2022]:URL:<https://www.bhphotovideo.com/c/product/753569-REG/Datacolor_DC_SC200_SpyderCube.html> (Year: 2022).*
Verification artifacts for CMMs—Calibration Cubes, product available unknown [online], no video/pictured review [online], [site visited Feb. 17, 2022]:URL:<https://www.plantautomation-technology.com/products/innovalia-metrology/verification-artifacts-for-cmms-calibration-cubesl> (Year: 2022).*

* cited by examiner

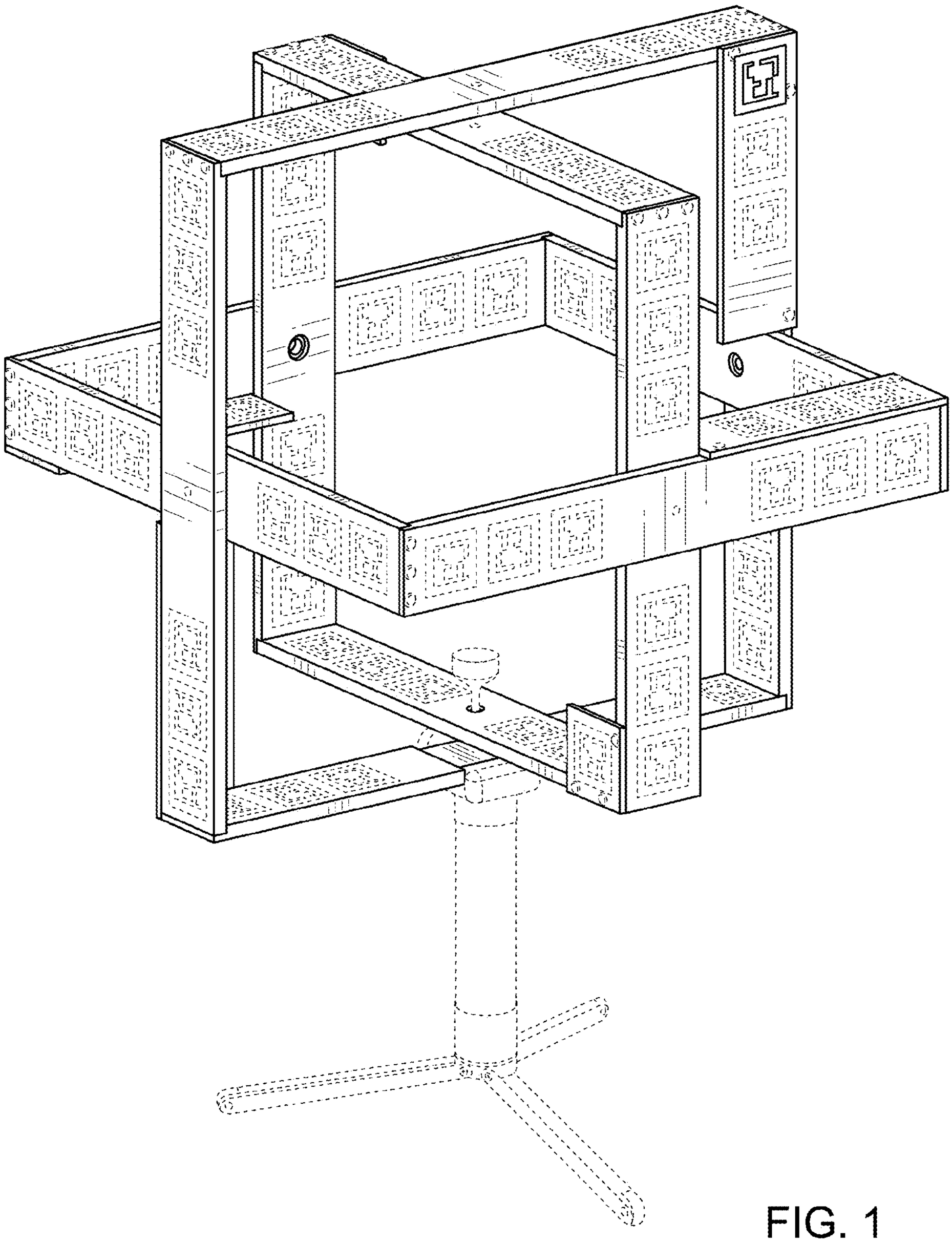


FIG. 1

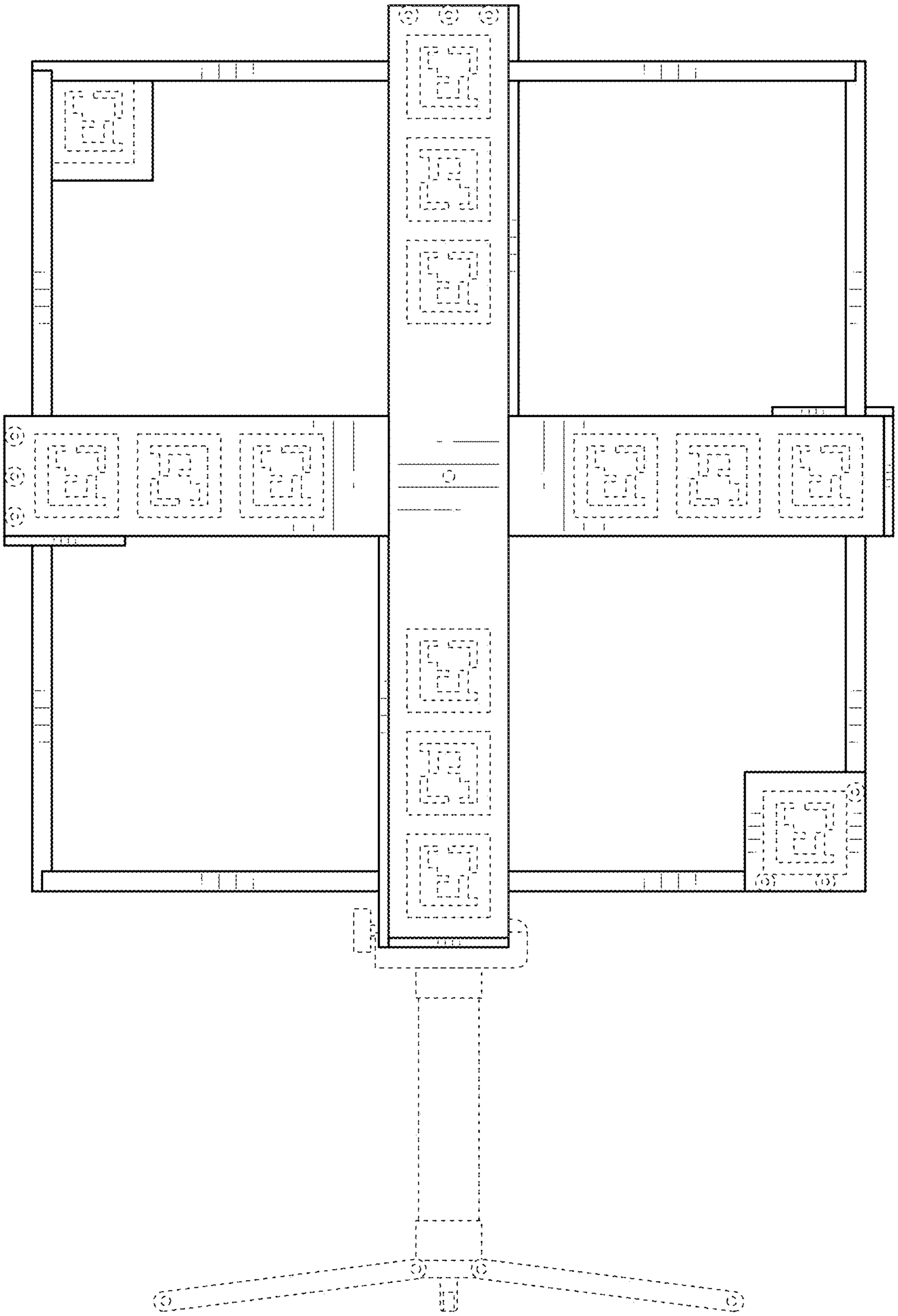
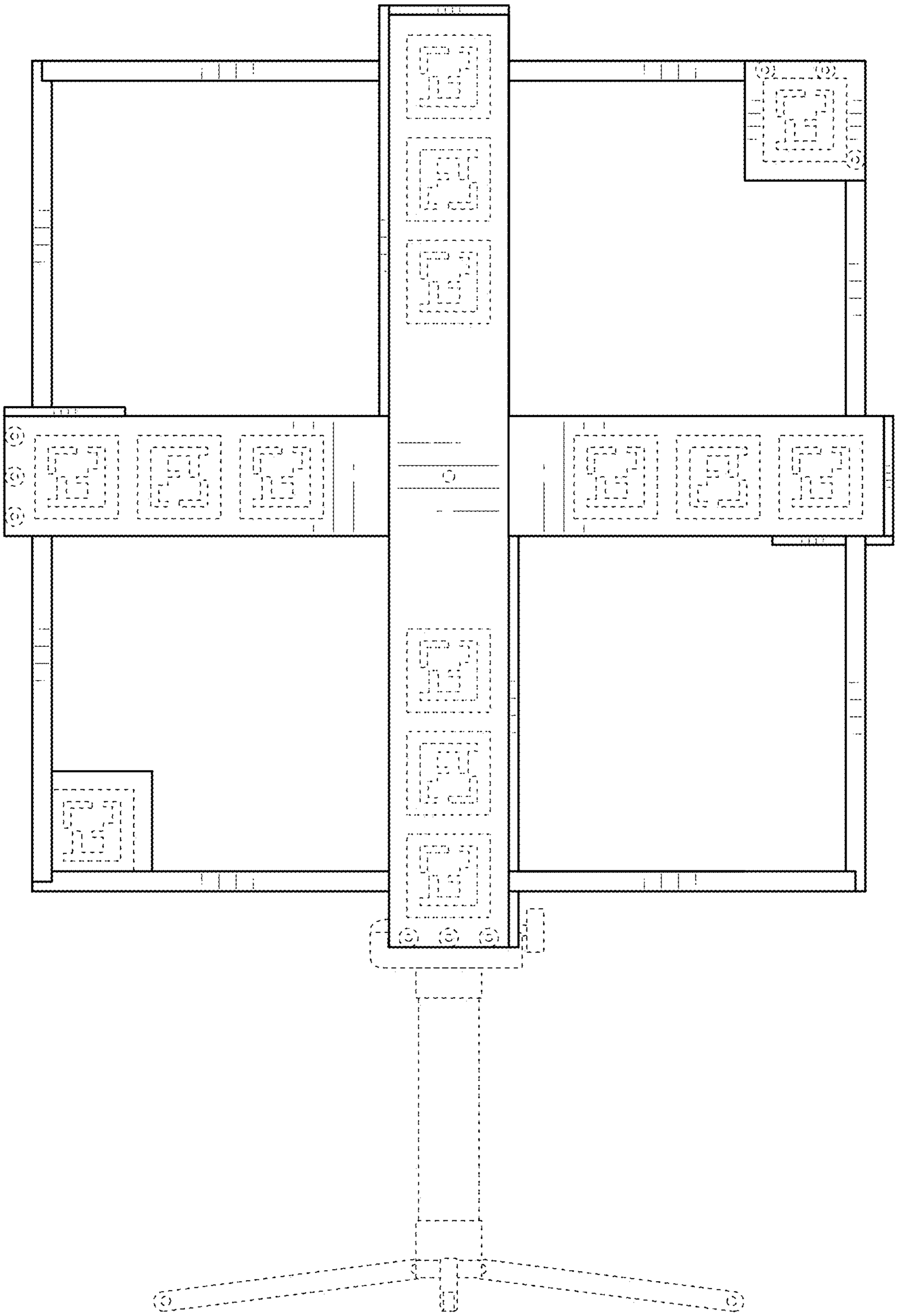


FIG. 2



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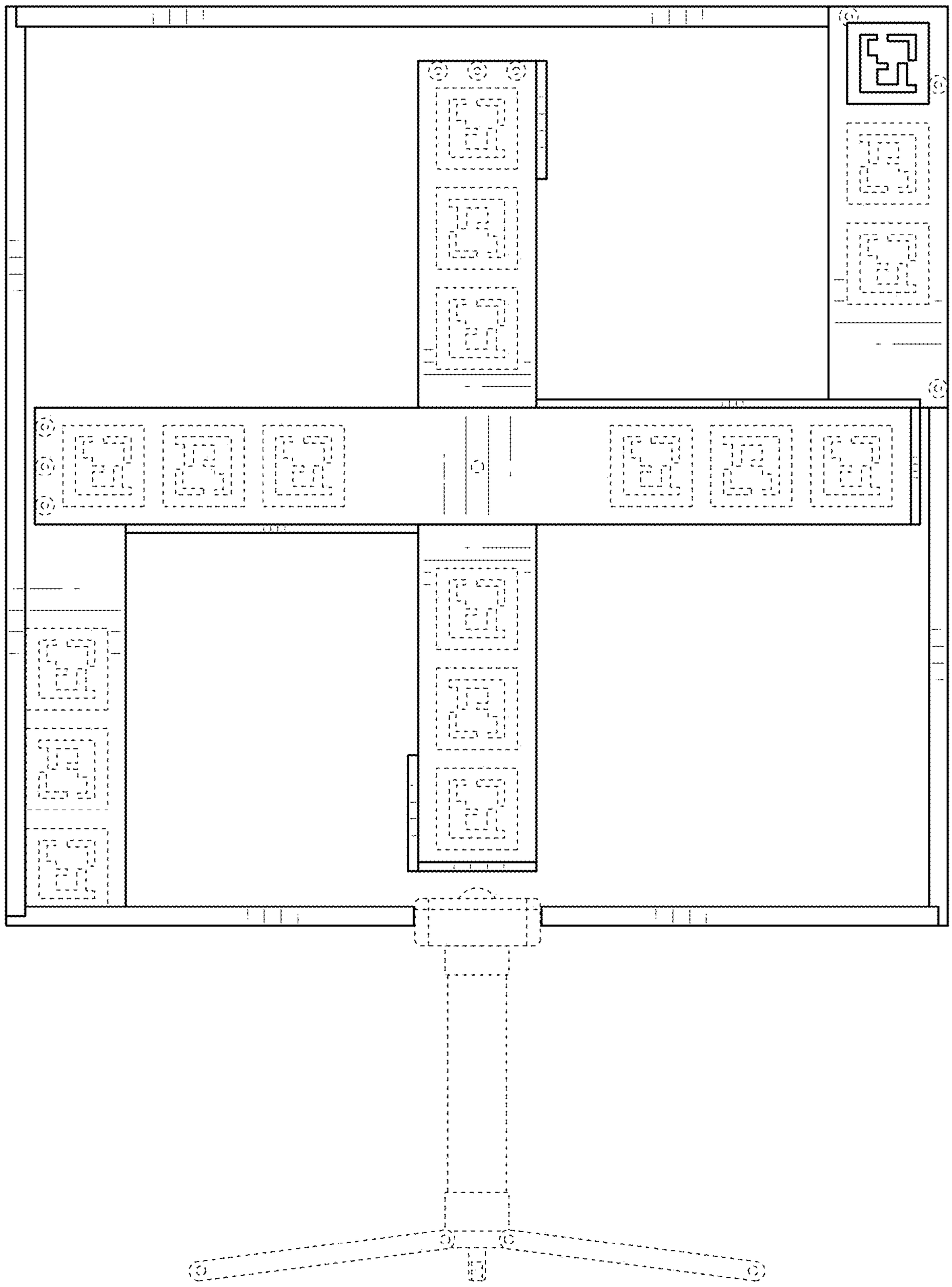


FIG. 4

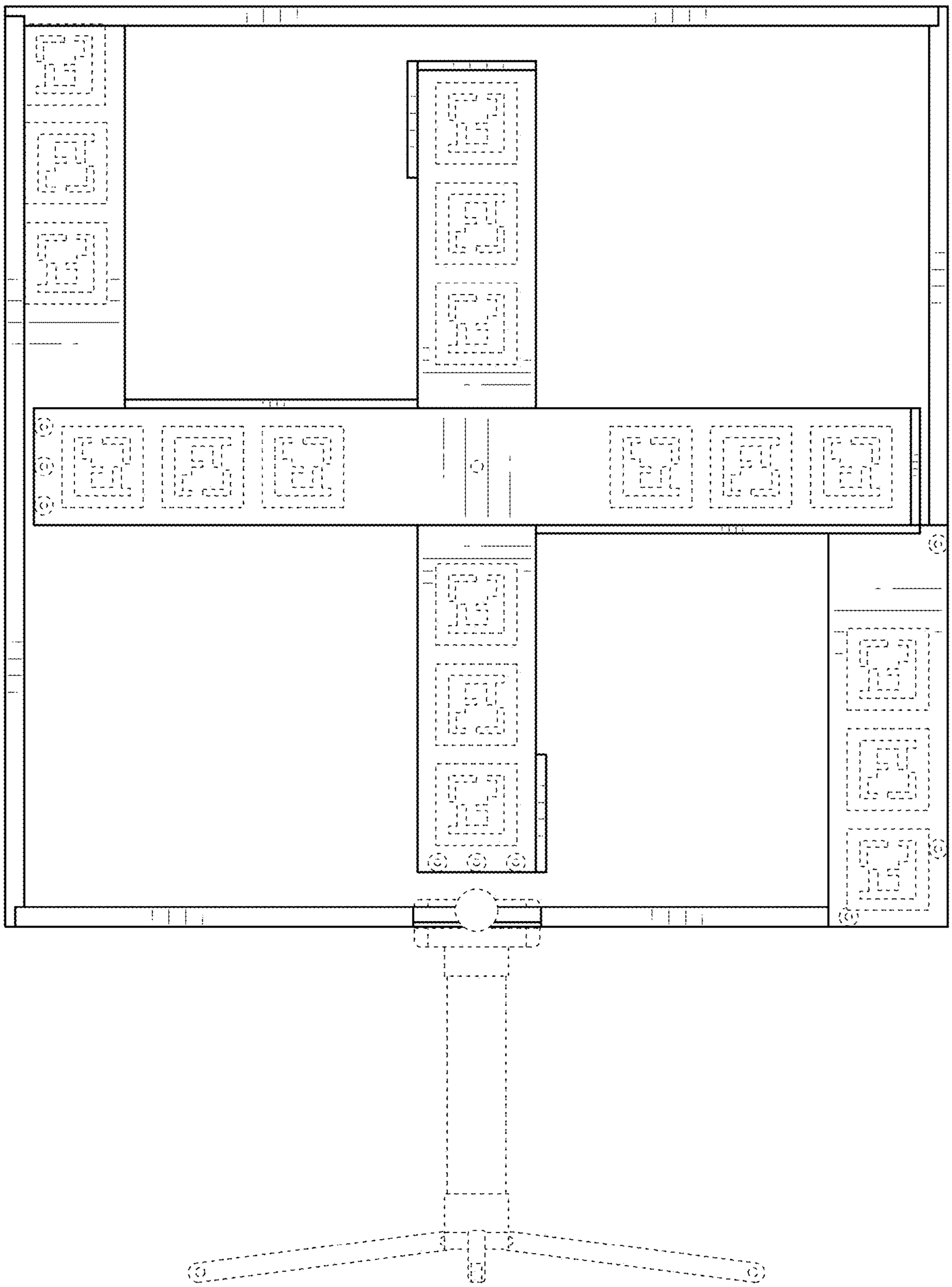


FIG. 5

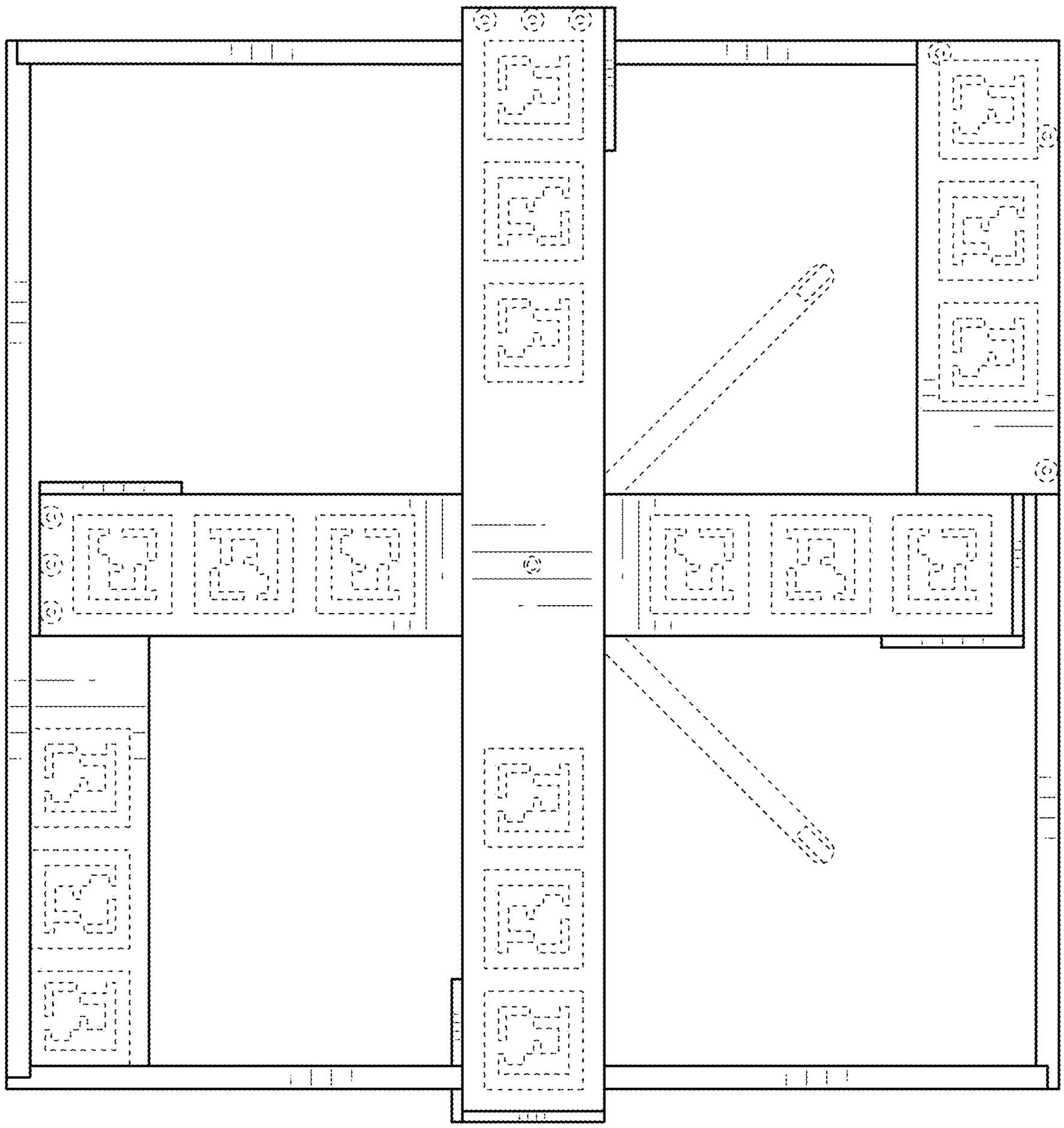
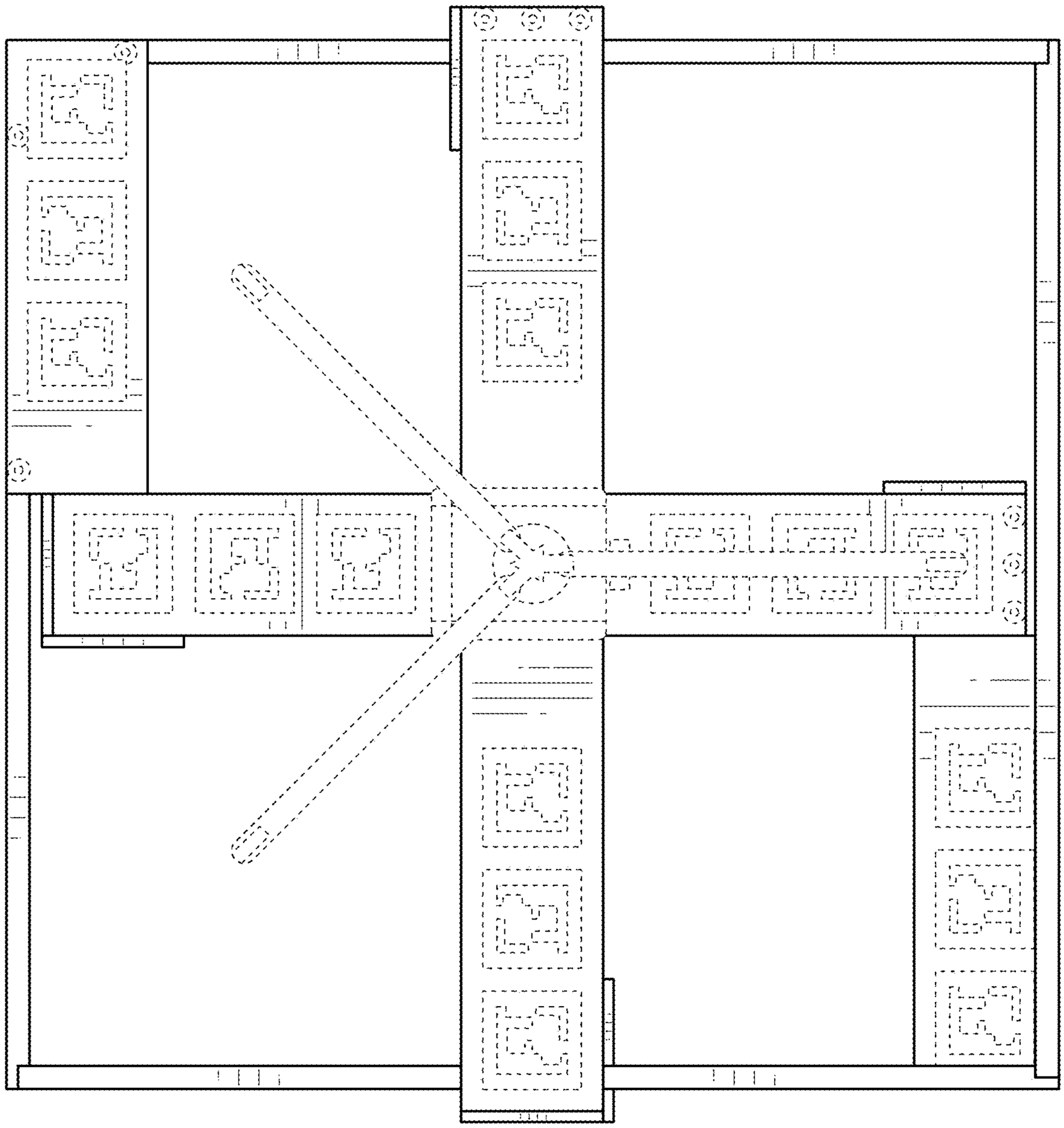


FIG. 6



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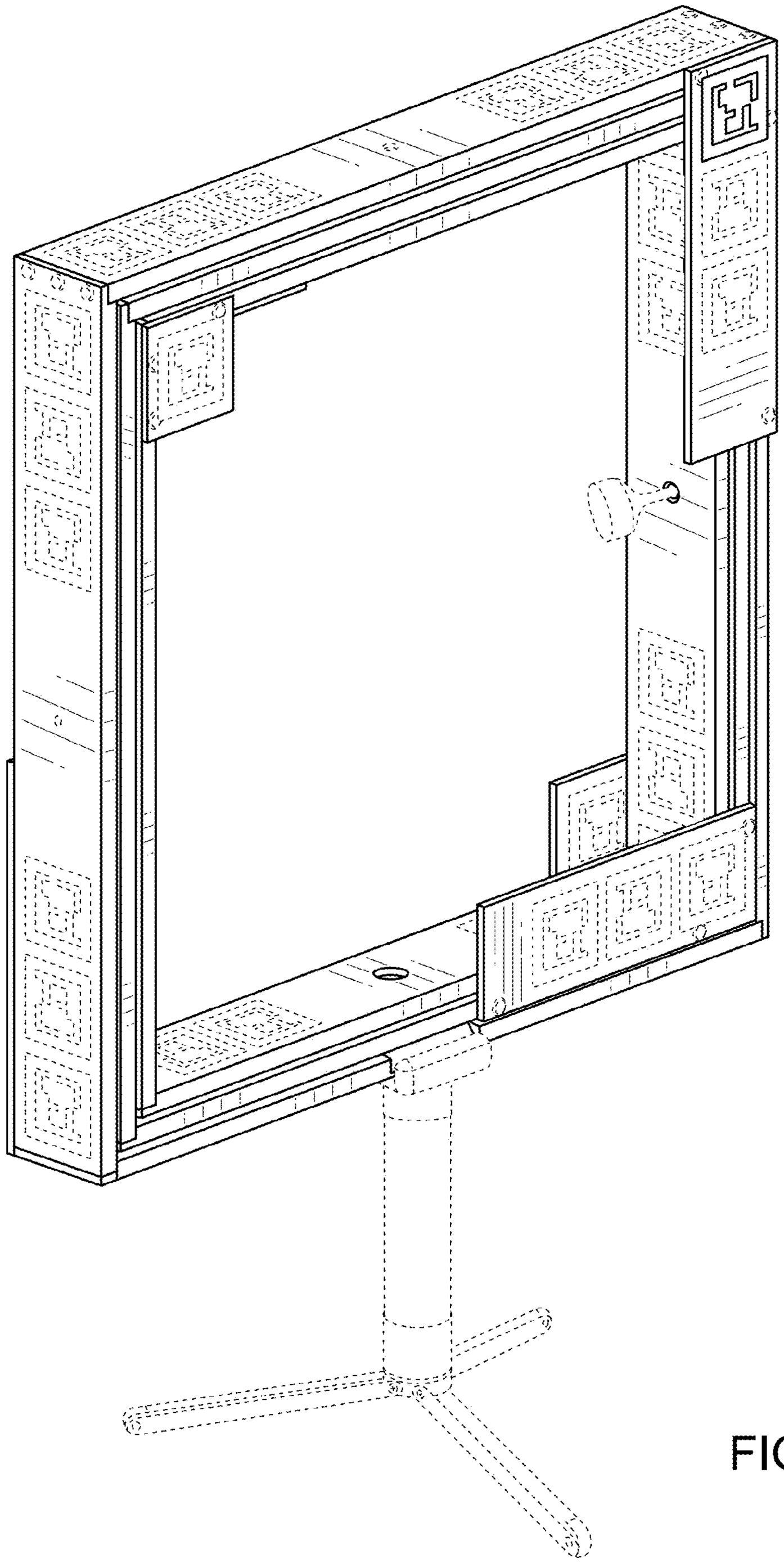


FIG. 8

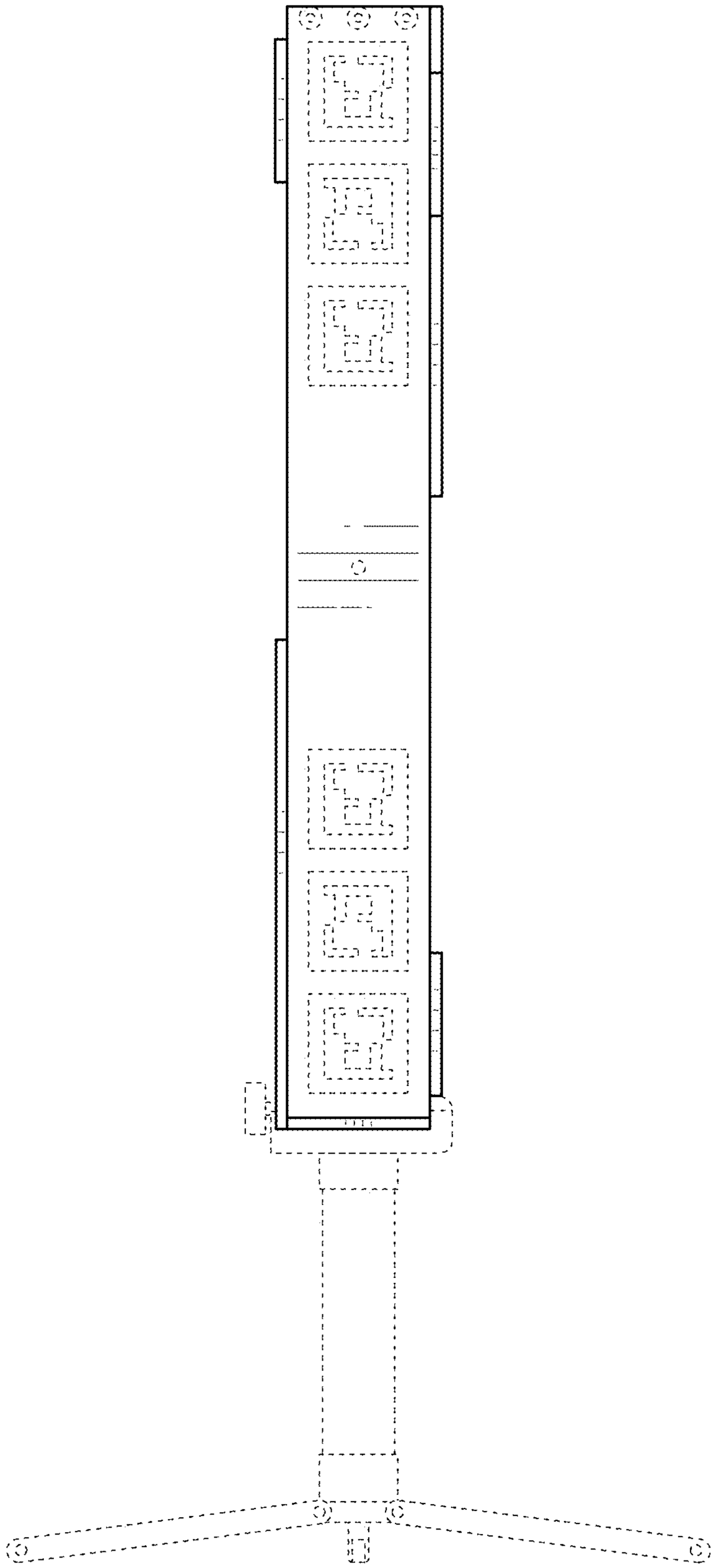


FIG. 9

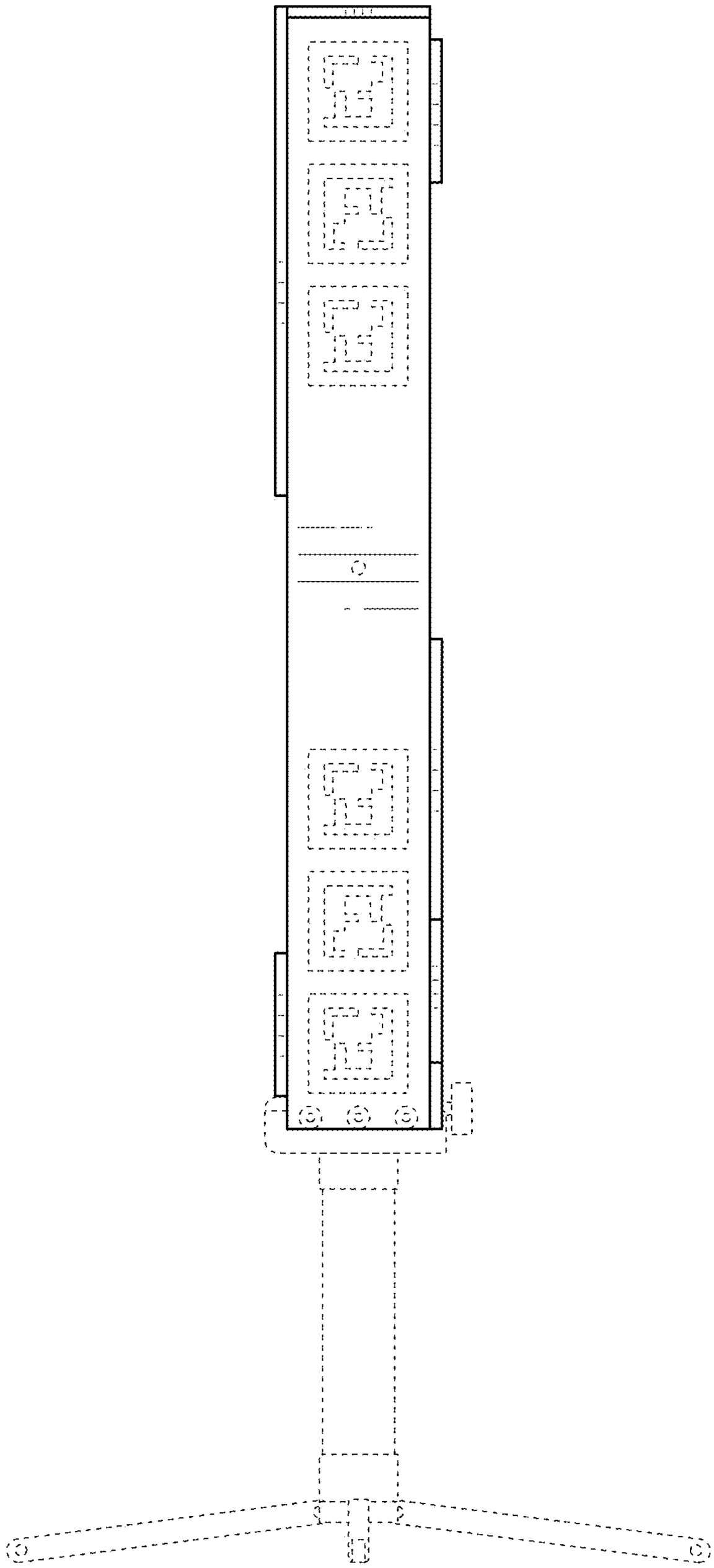
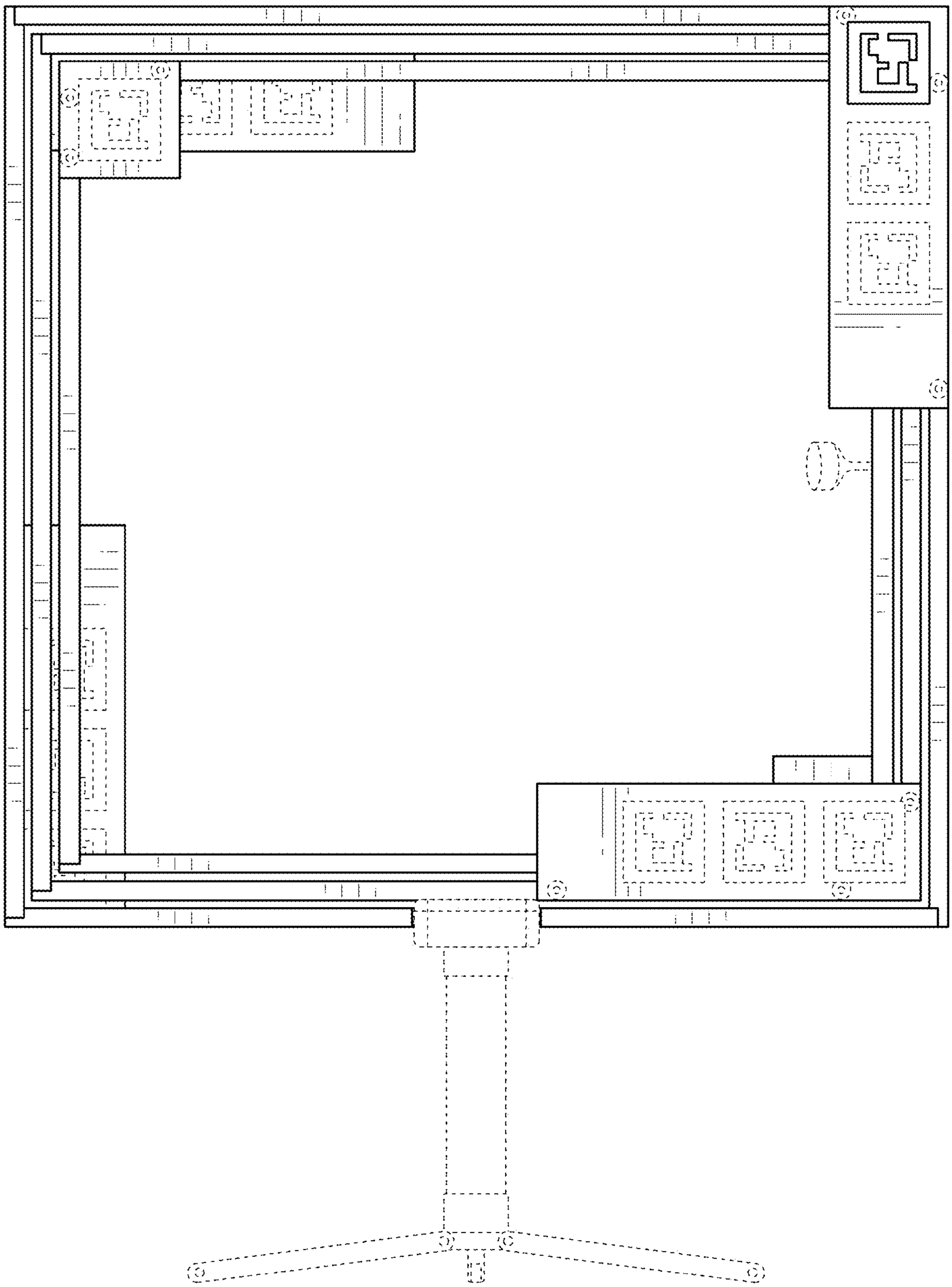


FIG. 10



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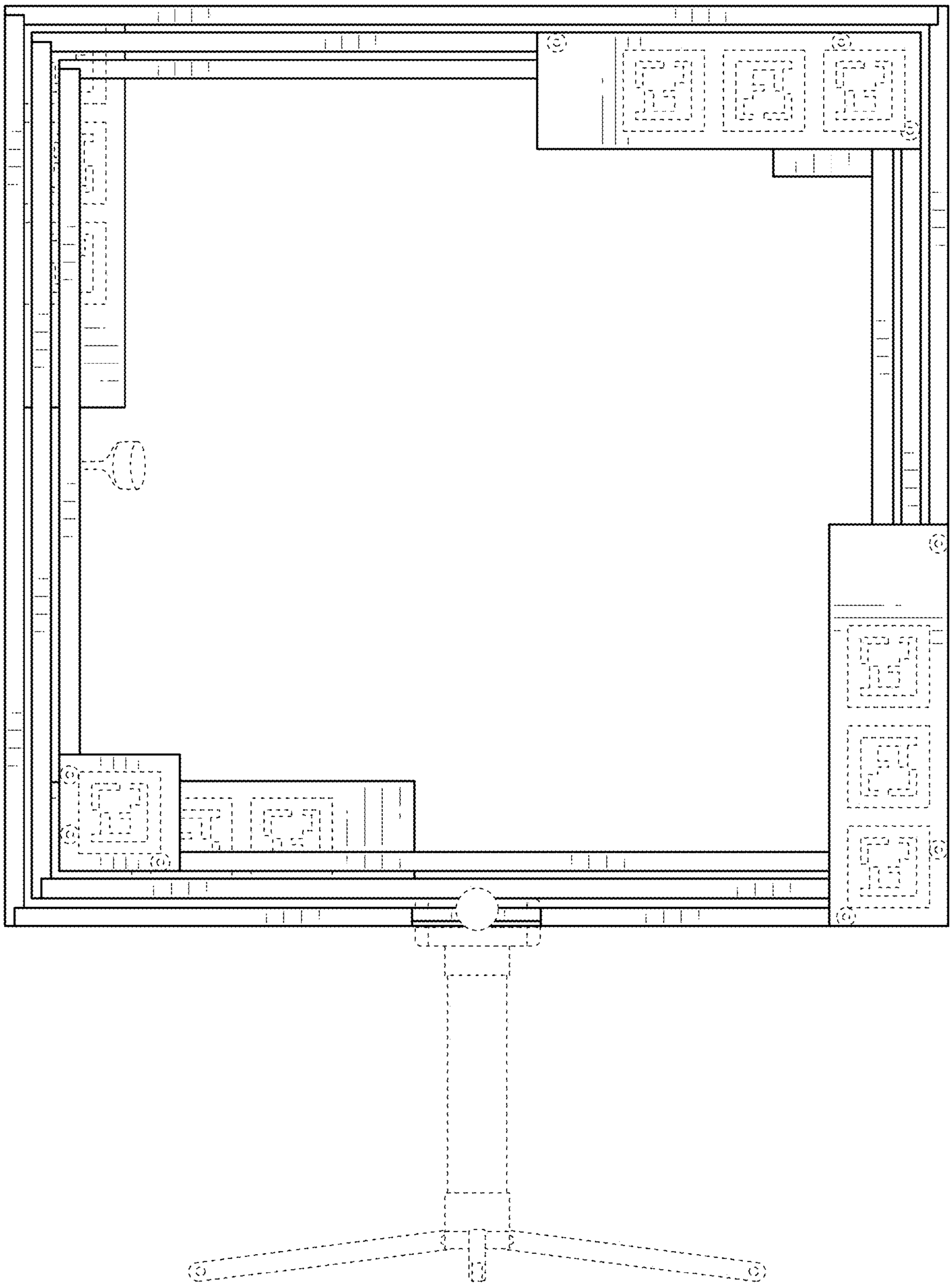

FIG. 12

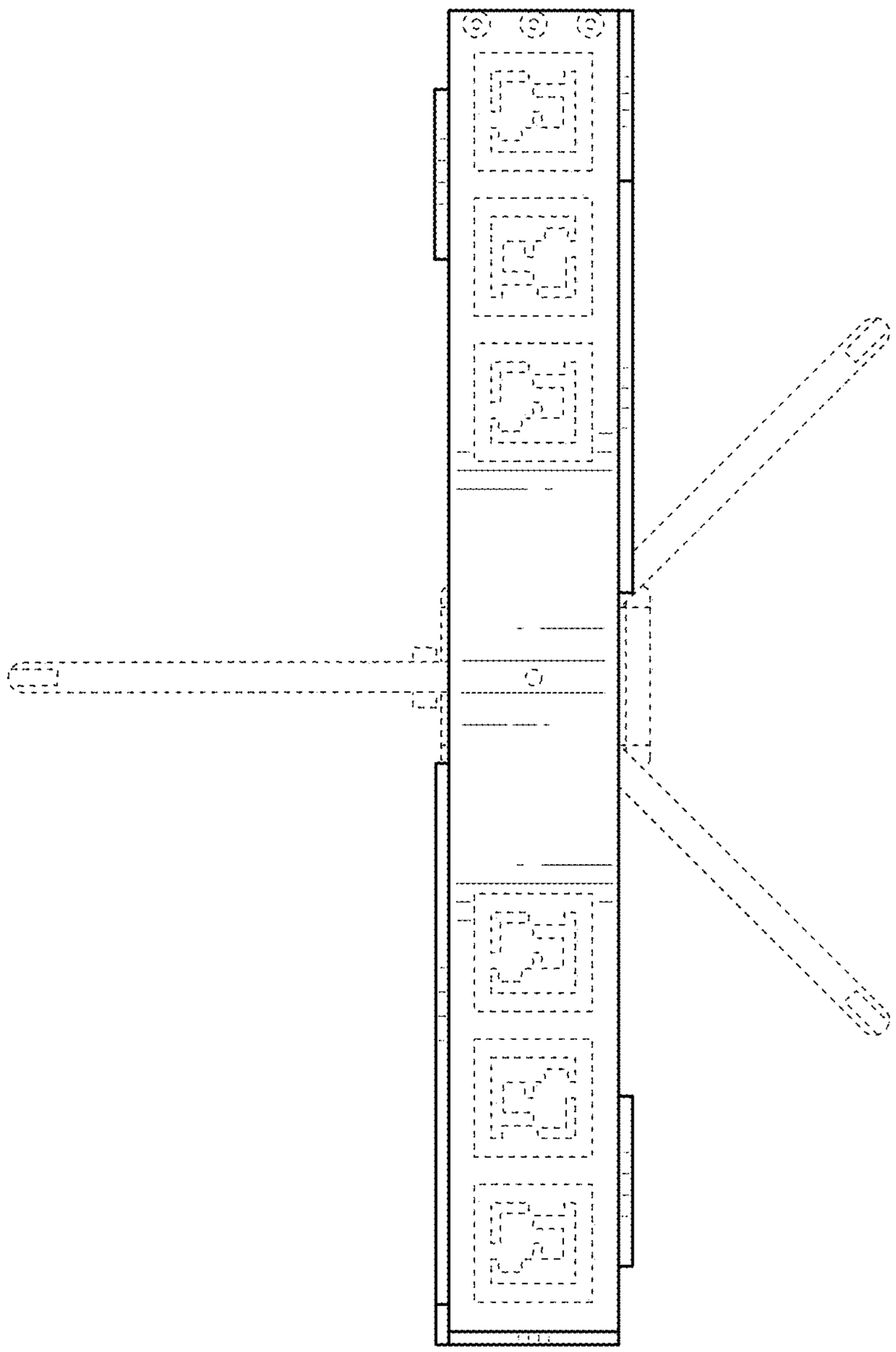

FIG. 13

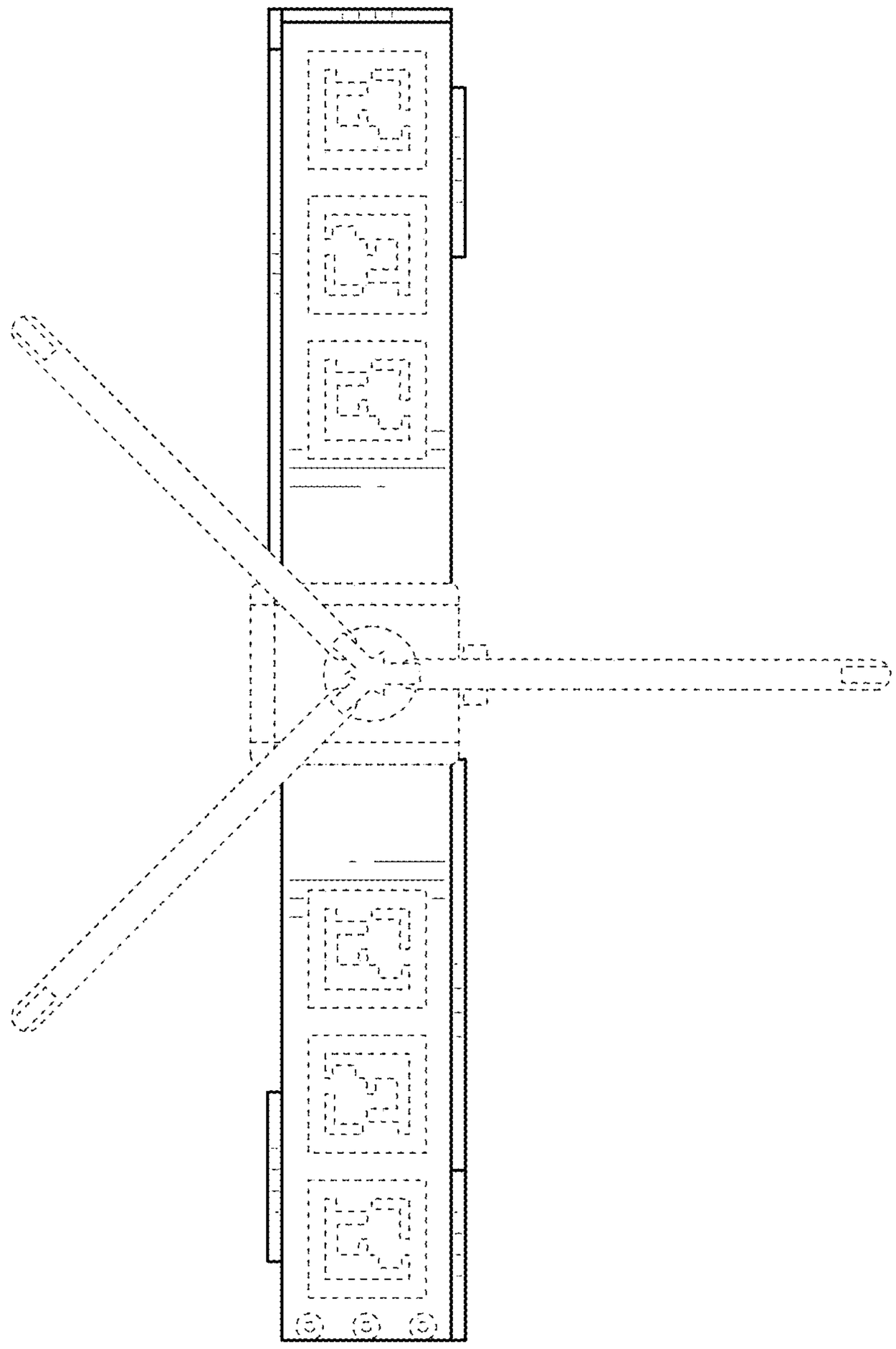

FIG. 14