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

(10) **Patent No.:** **US D916,717 S**  
(45) **Date of Patent:** **\*\* Apr. 20, 2021**

(54) **COCKPIT DISPLAY SCREEN PORTION WITH TRANSITIONAL GRAPHICAL USER INTERFACE**

Dec. 28, 2016, [retrieved on Sep. 23, 2020], retrieved from the Internet <URL: <https://www.youtube.com/watch?v=hjrELZXYUNQ>> (Year: 2016).\*

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(Continued)

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(73) Assignee: **Rockwell Collins, Inc.**, Cedar Rapids, IA (US)

(57) **CLAIM**

The ornamental design for a cockpit display screen portion with a transitional graphical user interface, as shown and described.

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

**DESCRIPTION**

(21) Appl. No.: **29/642,114**

(22) Filed: **Mar. 27, 2018**

FIG. 1 is a perspective view of a cockpit display screen portion with a transitional graphical user interface illustrated in a cockpit display environment, showing the image that is isolated in FIG. 2;

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 29/539,379, filed on Sep. 14, 2015, now abandoned.

FIG. 2 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

(51) **LOC (13) Cl.** ..... **14-04**

(52) **U.S. Cl.**  
USPC ..... **D14/485**

FIG. 3 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

(58) **Field of Classification Search**  
USPC ..... D14/485-495; D20/10, 11, 22-33, 39, D20/40

FIG. 4 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

(Continued)

FIG. 5 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

6,690,299 B1 \* 2/2004 Suiter ..... G01O 23/005  
340/973  
7,307,549 B2 \* 12/2007 Firra ..... B64D 43/00  
340/971

FIG. 6 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

(Continued)

FIG. 7 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

**OTHER PUBLICATIONS**

EFIS—Primary Flight Display (PFD)—Airspeed Display (iFly 747-400), by Subsonic Flight Training, YouTube [online], published on

FIG. 8 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

FIG. 9 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

(Continued)

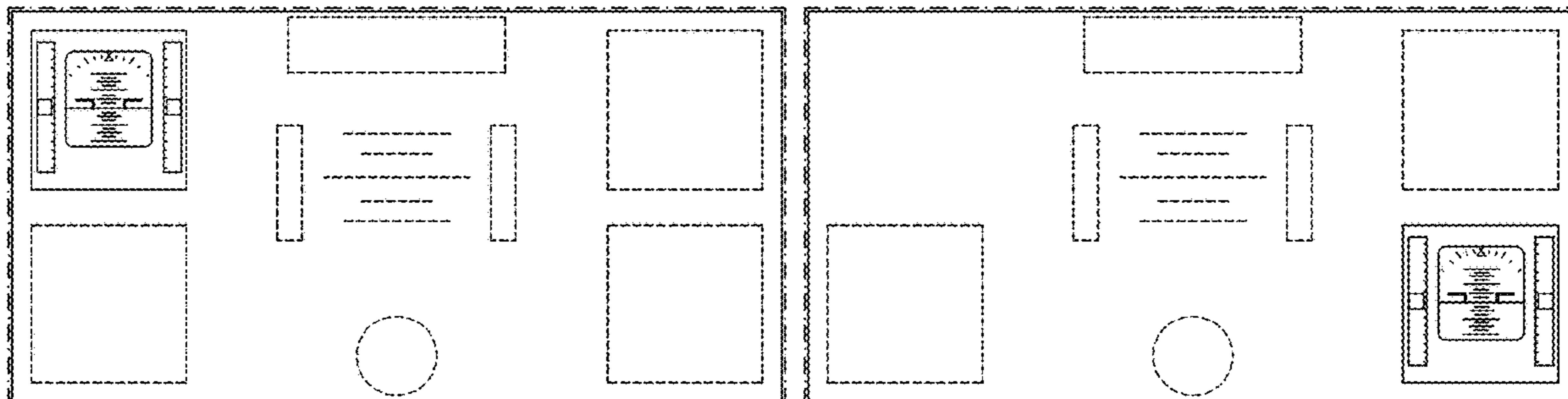


FIG. 10 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

FIG. 11 is a front view of the portion indicated by dot-dash broken line FIG. 1 showing an image in a transitional sequence of the claimed design;

FIG. 12 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

FIG. 13 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

FIG. 14 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

FIG. 15 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design;

FIG. 16 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design; and,

FIG. 17 is a front view of the portion indicated by dot-dash broken line in FIG. 1 showing an image in a transitional sequence of the claimed design.

The appearance of the transitional graphical user interface sequentially transitions between the images shown in FIGS. 2 and 3 in a first embodiment, between the images shown in FIGS. 2 and 4 in a second embodiment, between the images shown in FIGS. 2 and 5 in a third embodiment, between the images shown in FIGS. 6 and 7 in a fourth embodiment, between the images shown in FIGS. 6 and 8 in a fifth embodiment, between the images shown in FIGS. 6 and 9 in a sixth embodiment, between the images shown in FIGS. 10 and 11 in a seventh embodiment, between the images shown in FIGS. 10 and 12 in an eighth embodiment, between the images shown in FIGS. 10 and 13 in a ninth embodiment, between the images shown in FIGS. 14 and 15 in a tenth embodiment, between the images shown in FIGS. 14 and 16 in an eleventh embodiment, and between the images shown in FIGS. 14 and 17 in a twelfth embodiment. The process or period in which one image transitions to another image forms no part of the claimed design.

The horizontally-aligned solid-lined rectangle illustrates the cockpit display screen portion.

The dot-dash broken line in FIG. 1, indicating the portion shown enlarged in FIGS. 2-17, forms no part of the claimed design.

The broken-line subject matter within the horizontally-aligned solid-lined rectangle showing portions of a graphical user interface is included for the purpose of illustrating portions of the article of manufacture and form no part of the claimed design.

The broken-line subject matter outside of the horizontally-aligned solid-lined rectangle in FIG. 1 illustrates a cockpit environment that forms no part of the claimed design.

**1 Claim, 17 Drawing Sheets**

(58) **Field of Classification Search**

CPC ..... G06F 3/048-04897; G06F 3/017; G01C 23/00; G01C 23/005; G08G 5/0021; G08G 5/0047; G08G 5/04; G02B 27/01

See application file for complete search history.

(56)

**References Cited**

U.S. PATENT DOCUMENTS

8,159,464	B1	4/2012	Gribble et al.	
8,193,948	B1 *	6/2012	Shapiro .....	G08G 5/065 340/965
8,364,328	B2 *	1/2013	Hedrick .....	H04L 67/14 701/3
8,768,541	B2 *	7/2014	Detouillon .....	G06F 3/04886 701/3
8,779,946	B1	7/2014	Gribble et al.	
D726,758	S	4/2015	Bourret et al.	
9,019,128	B1	4/2015	Kim	
D736,239	S *	8/2015	Maner .....	D14/486
D736,241	S *	8/2015	Sic .....	D14/486
9,132,913	B1 *	9/2015	Shapiro .....	G05D 1/106
9,280,904	B2 *	3/2016	Bourret .....	G08G 5/025
D773,532	S *	12/2016	Gauci .....	D14/492
D791,815	S *	7/2017	Dzjind .....	D14/488
9,703,476	B1 *	7/2017	Pappas .....	G06F 3/04886
9,824,689	B1 *	11/2017	Shapiro .....	G10L 15/22
D866,568	S *	11/2019	Park .....	D14/485
D896,829	S *	9/2020	Shi .....	D14/486
2003/0025719	A1	2/2003	Palmer et al.	
2005/0156777	A1 *	7/2005	King .....	G08G 5/0021 342/29
2007/0008188	A1	1/2007	Firra	
2011/0029919	A1 *	2/2011	Woltkamp .....	G01C 23/00 715/810
2013/0215023	A1 *	8/2013	Bourret .....	G06F 3/013 345/157
2014/0277857	A1	9/2014	Bourret et al.	
2015/0211883	A1 *	7/2015	He .....	B64D 43/02 340/946
2016/0179327	A1 *	6/2016	Zammit-Mangion .....	G08G 5/0039 701/7
2016/0180718	A1	6/2016	Shapiro et al.	
2016/0350049	A1 *	12/2016	Barnidge .....	G06F 3/1423
2017/0075558	A1 *	3/2017	Shapiro .....	G09G 5/38
2018/0322792	A1 *	11/2018	Pratap .....	B64D 43/00

OTHER PUBLICATIONS

FSX How to Load Gauges in Position, by ArmchairAviator, YouTube [online], published on Mar. 9, 2010, [retrieved on Sep. 23, 2020], retrieved from the Internet <URL: <https://www.youtube.com/watch?v=40Amlh4Vfdl>> (Year: 2010).\*

File: Primary Flight Display of a Boeing 737-800.png, by WestNest, YouTube [online], published on May 5, 2015, [retrieved on Sep. 23, 2020], retrieved from the Internet <URL: [https://en.wikipedia.org/wiki/File:Primary\\_Flight\\_Display\\_of\\_a\\_Boeing\\_737-800.png](https://en.wikipedia.org/wiki/File:Primary_Flight_Display_of_a_Boeing_737-800.png)> (Year: 2015).\*

Aircraft Electronic Instrument Systems EIS EFIS System, by Xpert Group, YouTube [online], published on Nov. 30, 2017, [retrieved on Sep. 23, 2020], retrieved from the Internet <URL: <https://www.youtube.com/watch?v=MtMNDOfcg5k>> (Year: 2017).\*

Touch Screens Are Tested for Piloting Passenger Jets, by Clark, nytimes.com [online], published Jul. 5, 2013, [retrieved Mar. 24, 2017], retrieved from the Internet <URL: <http://www.nytimes.com/2013/07/06/technology/passenger-jets-testing-touchscreen-technology.html>>.

\* cited by examiner

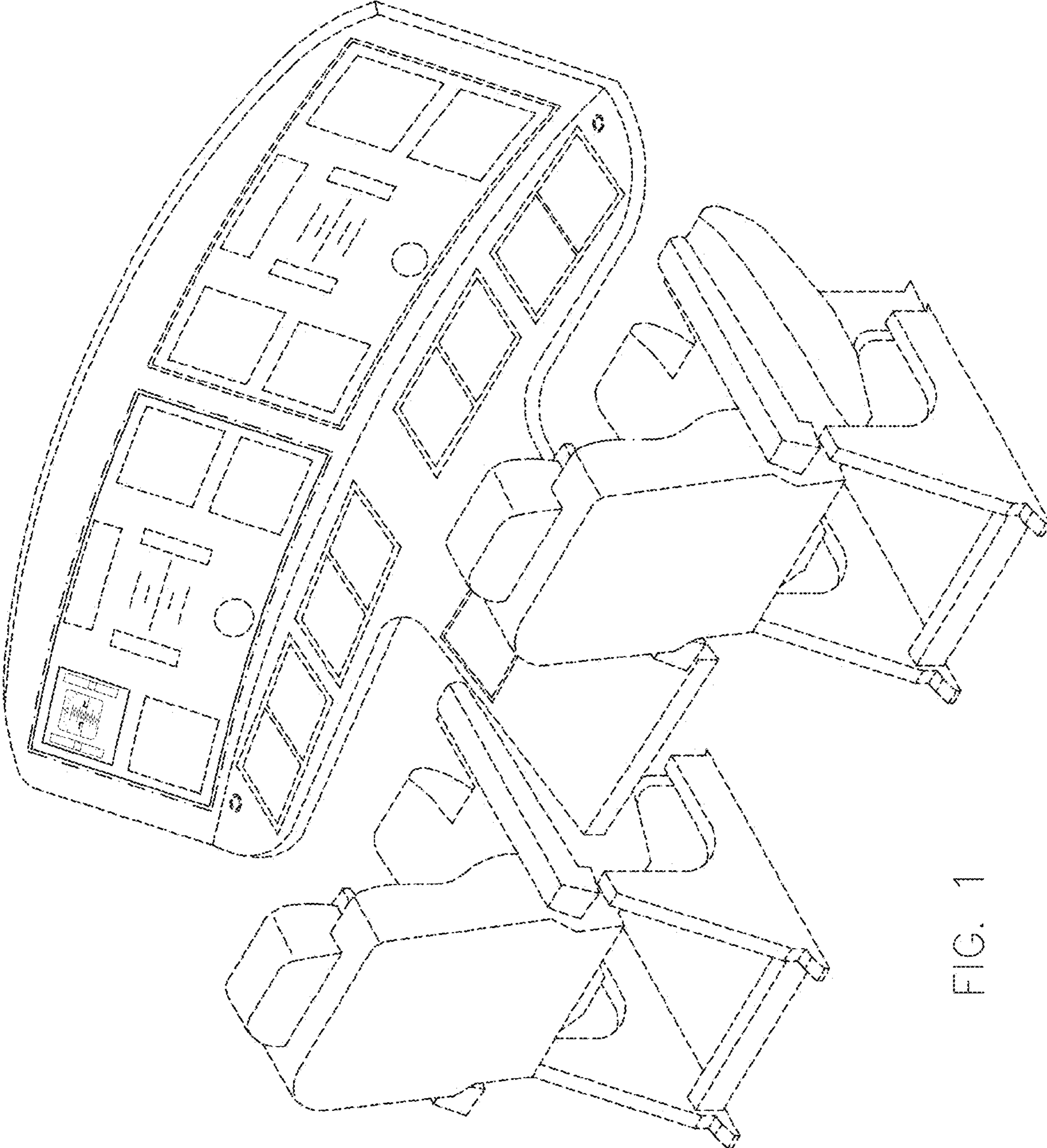


FIG. 1

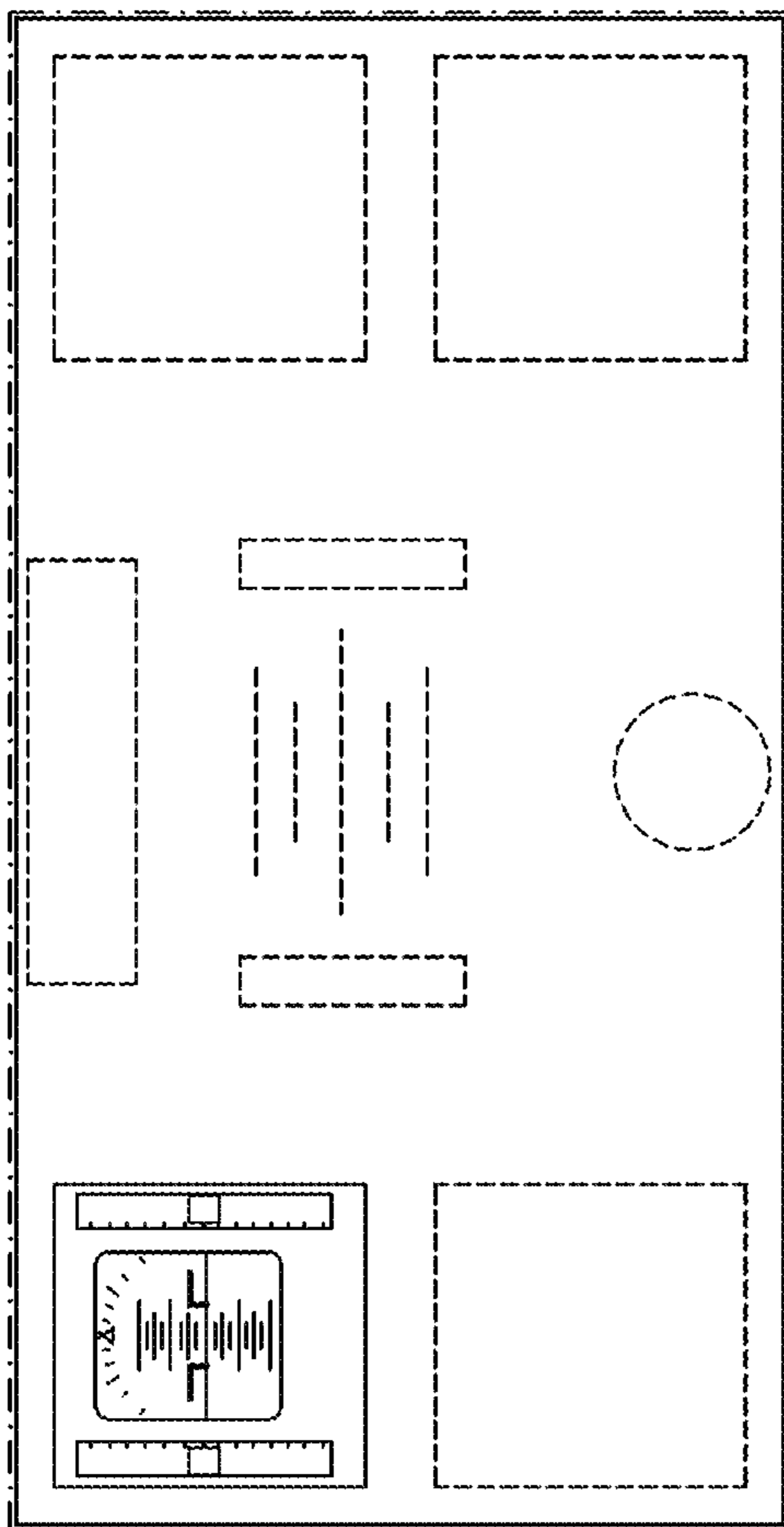


FIG. 2

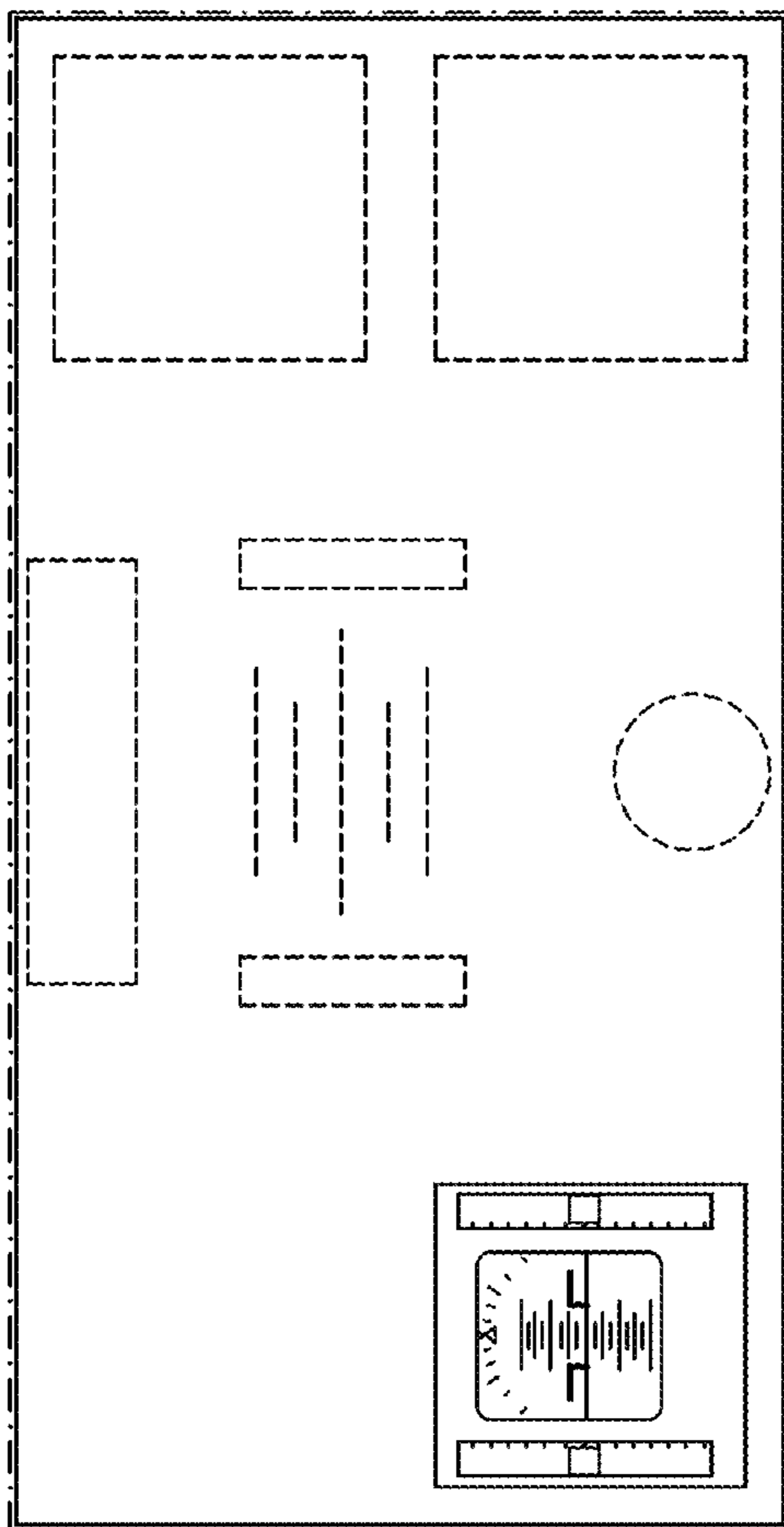


FIG. 3

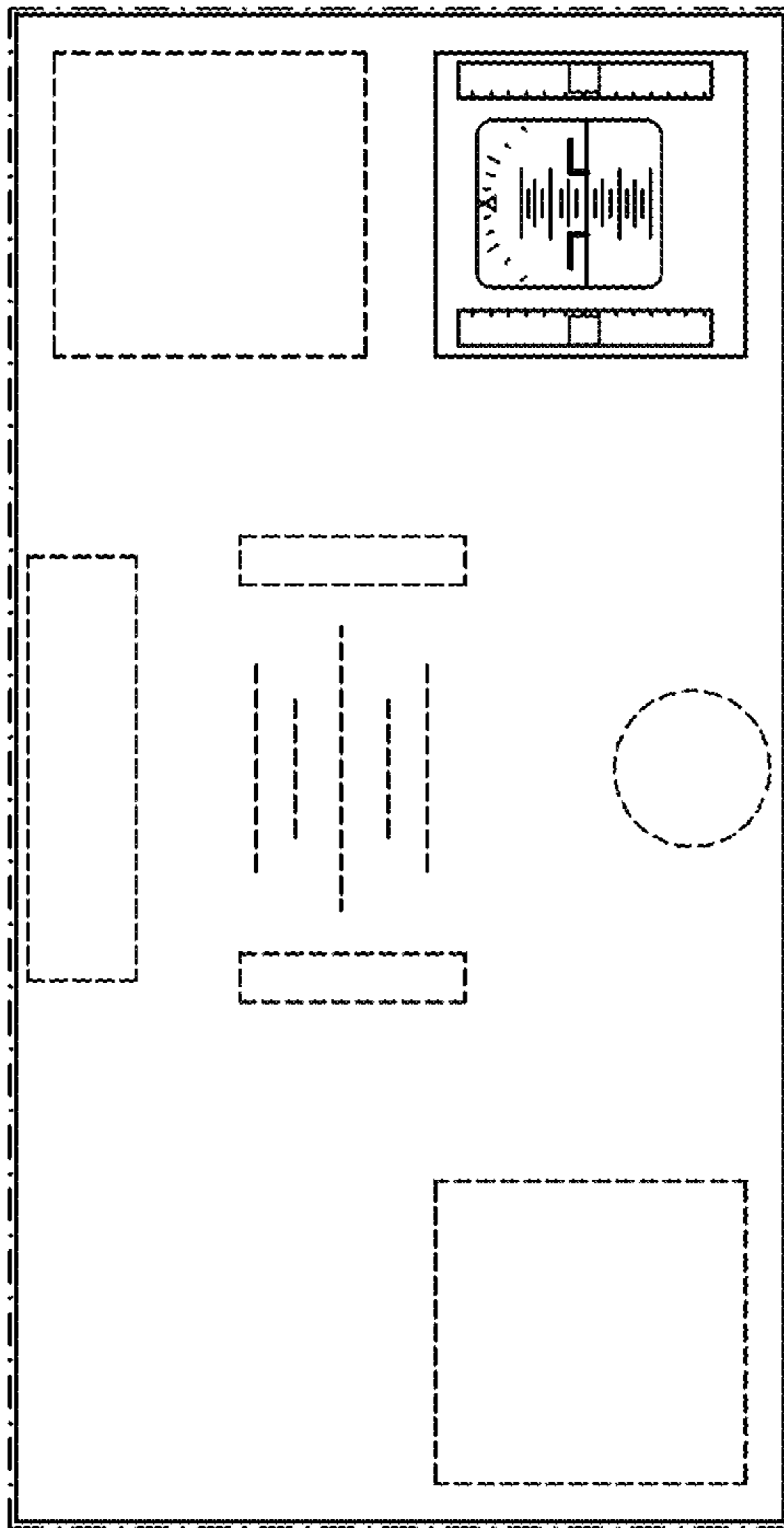


FIG. 4

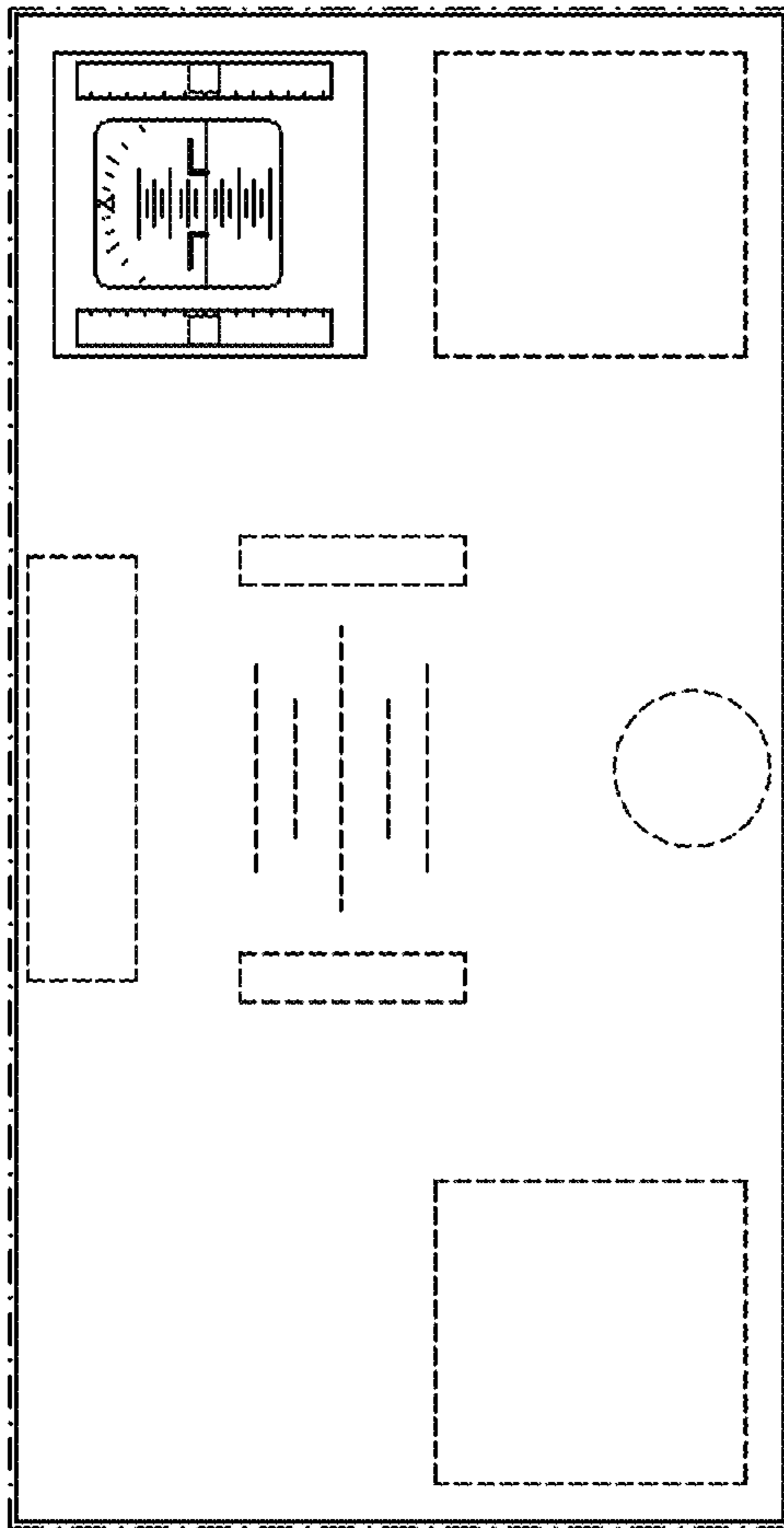


FIG. 5

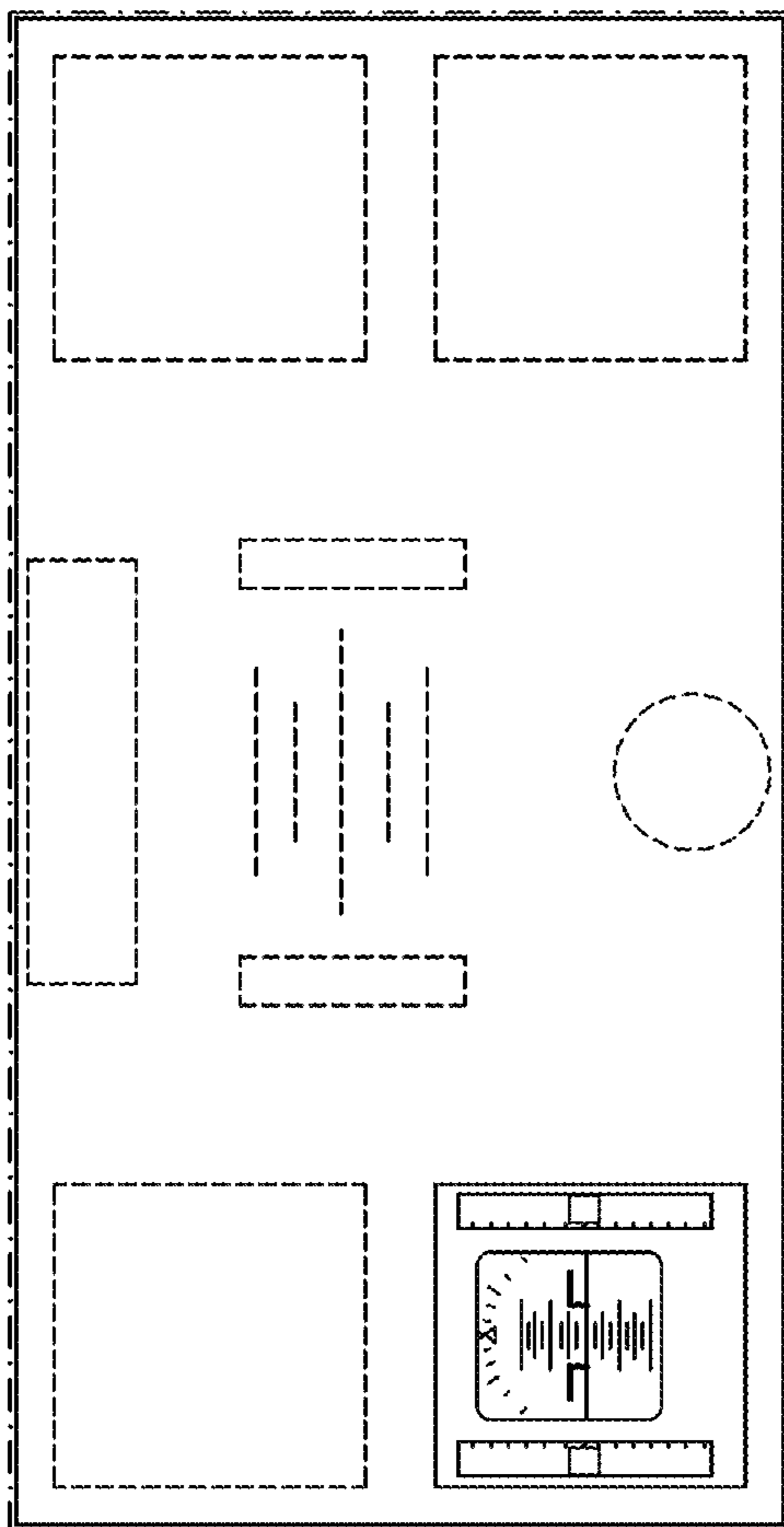


FIG. 6



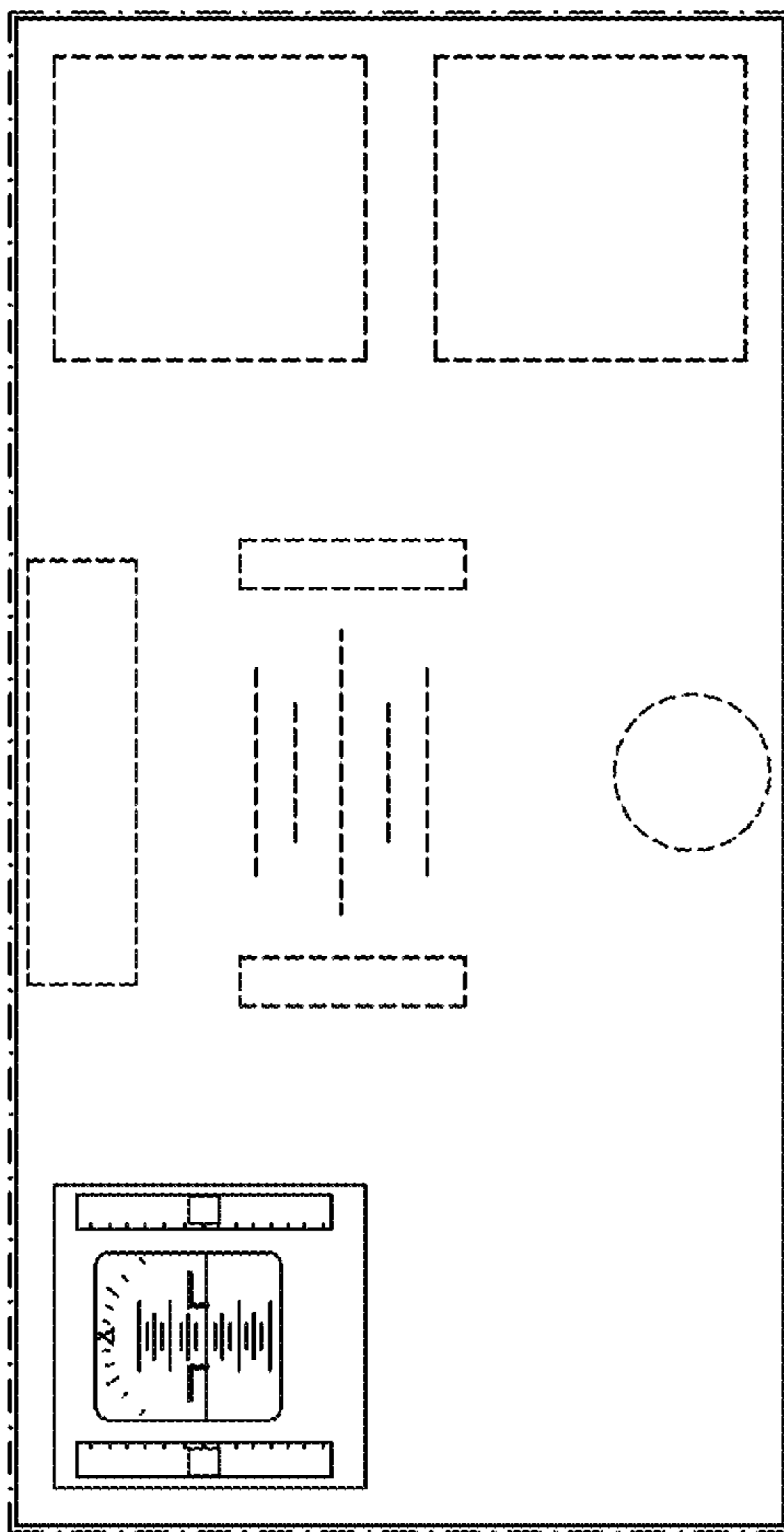


FIG. 7

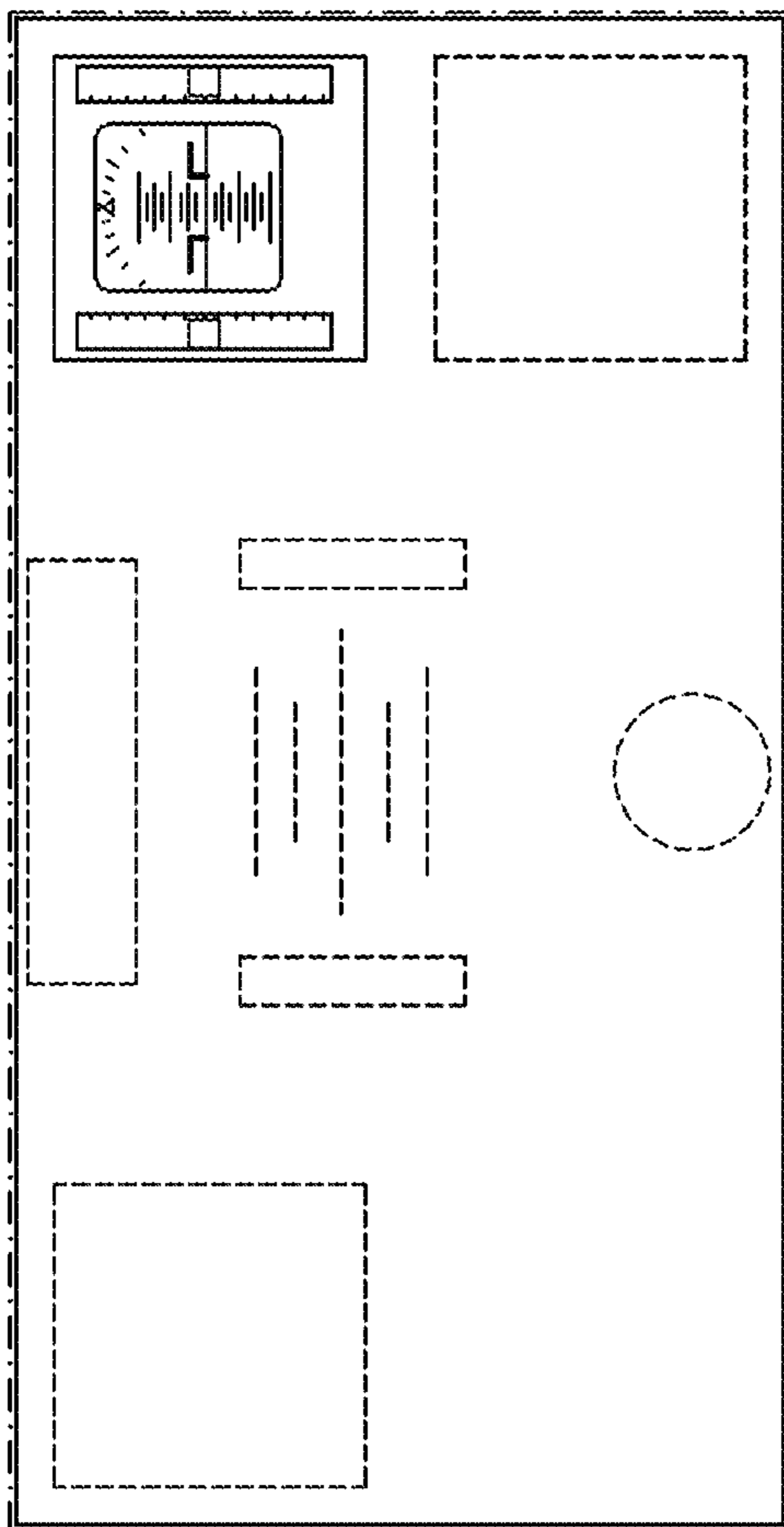


FIG. 8

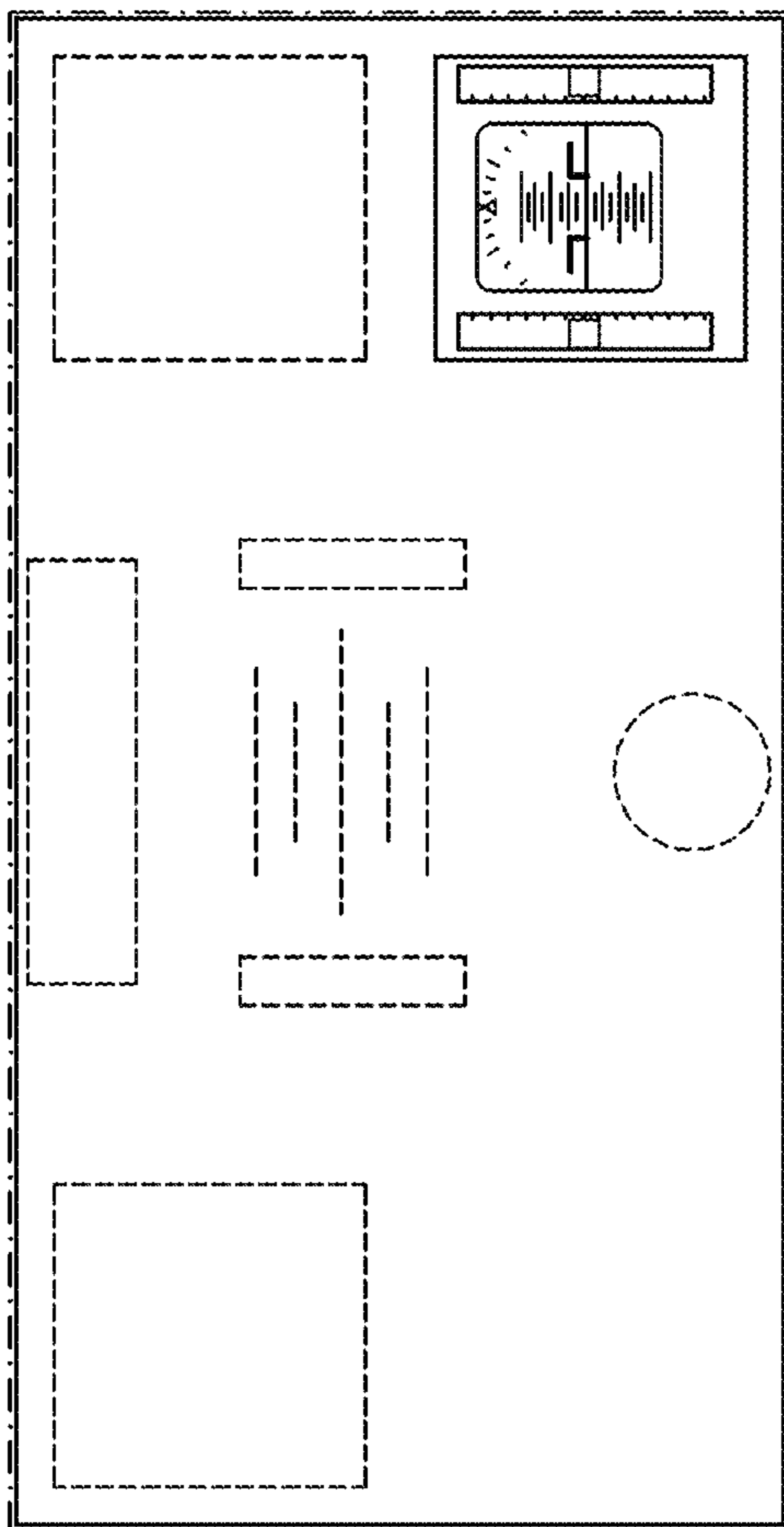


FIG. 9

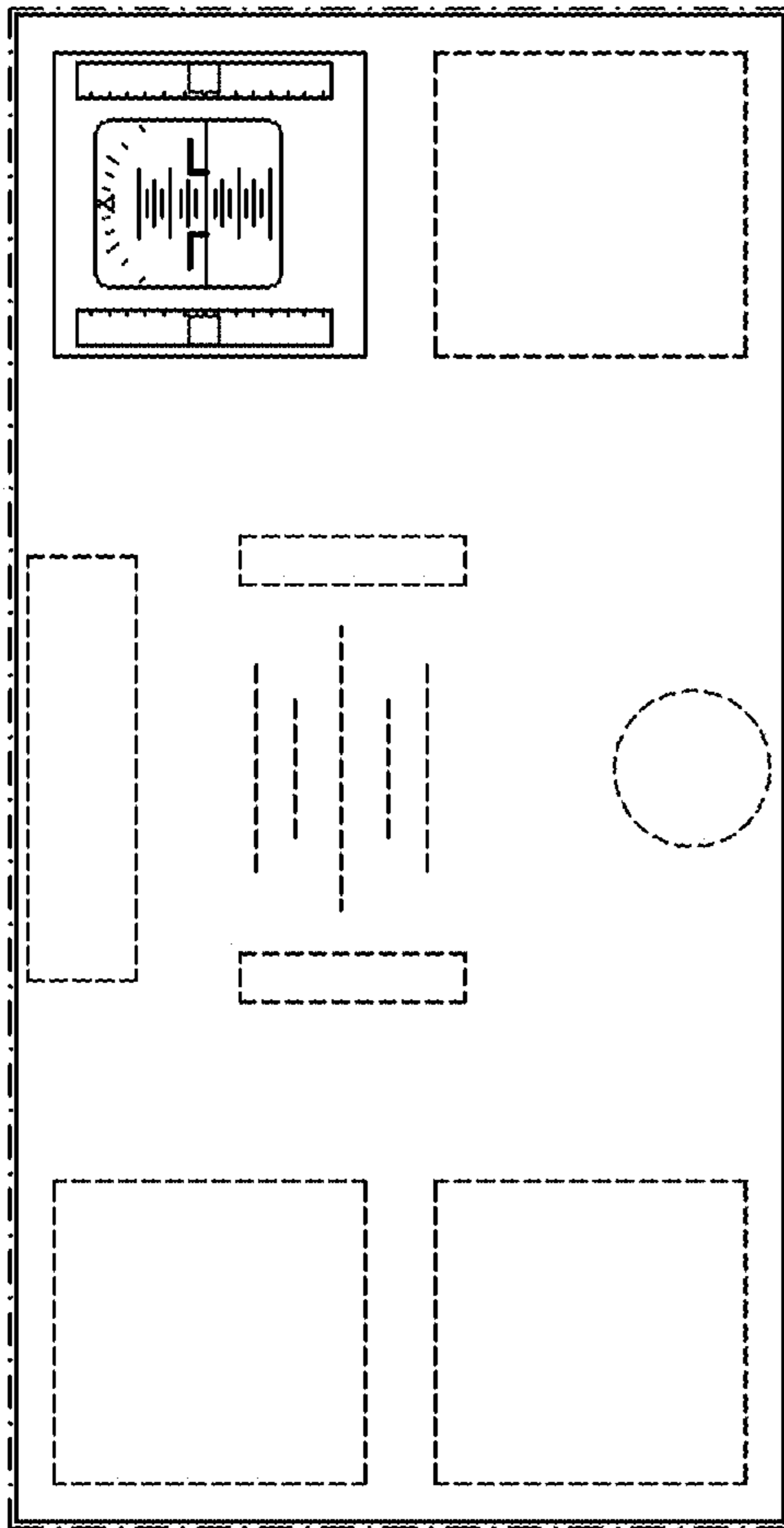


FIG. 10

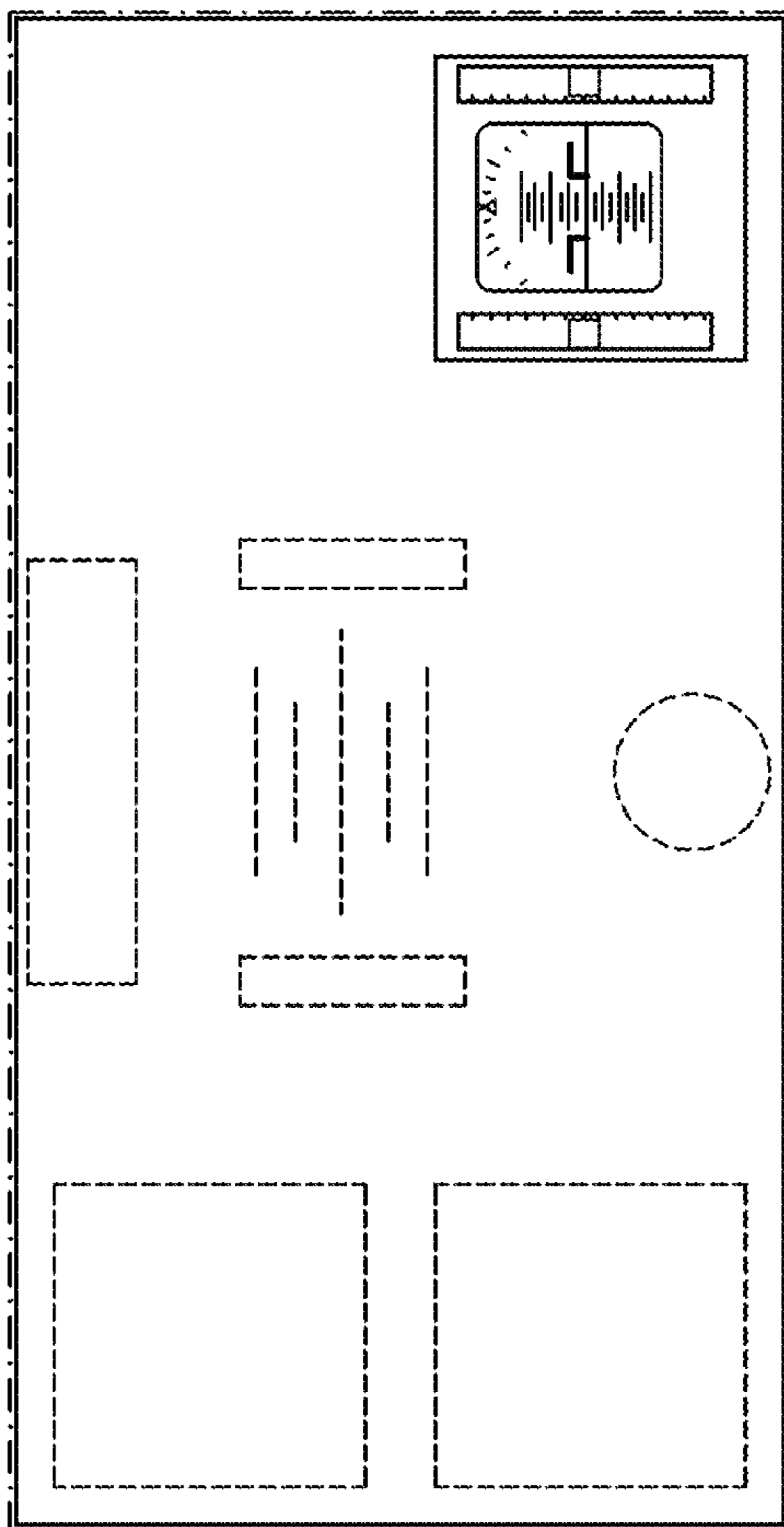


FIG. 11

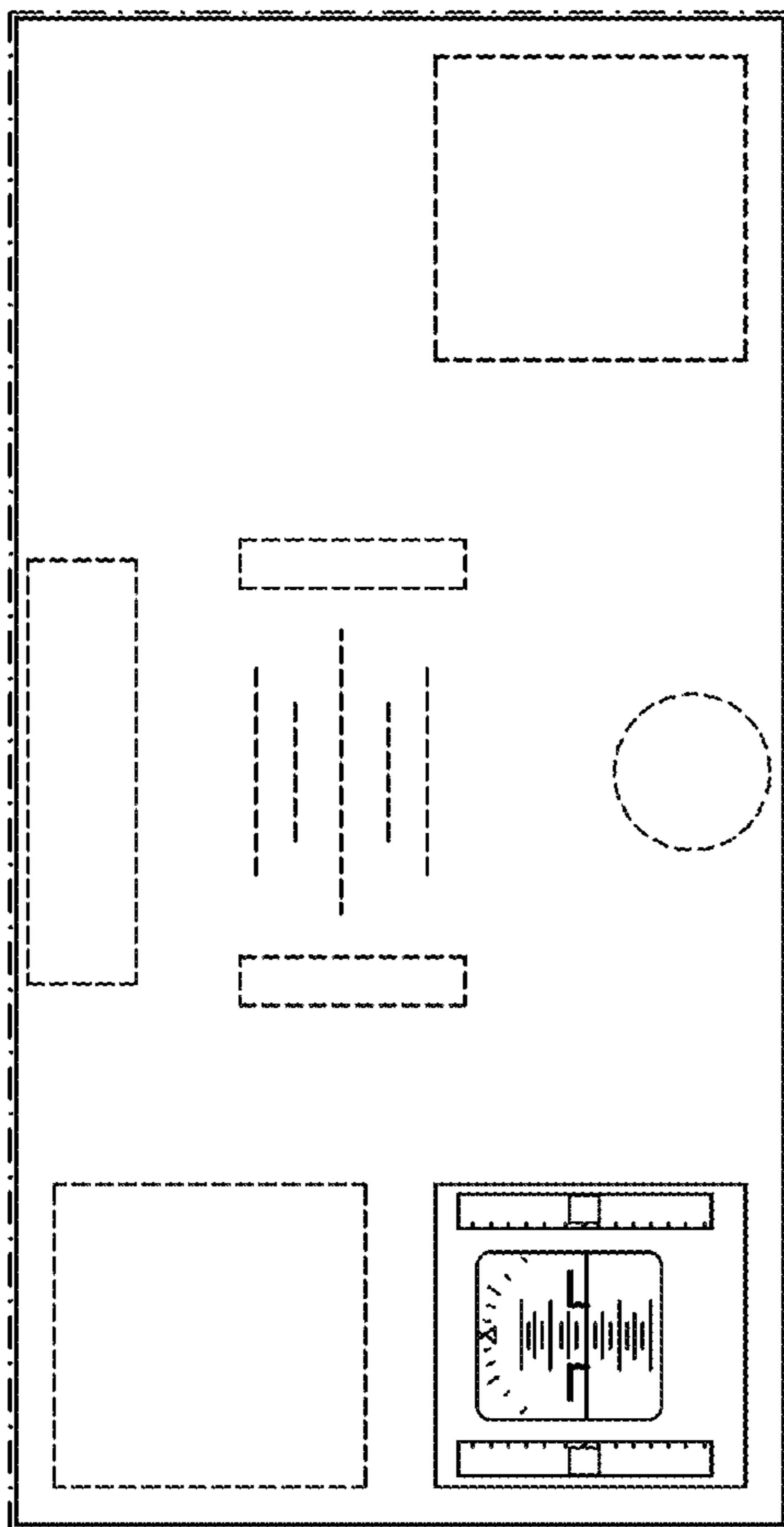


FIG. 12

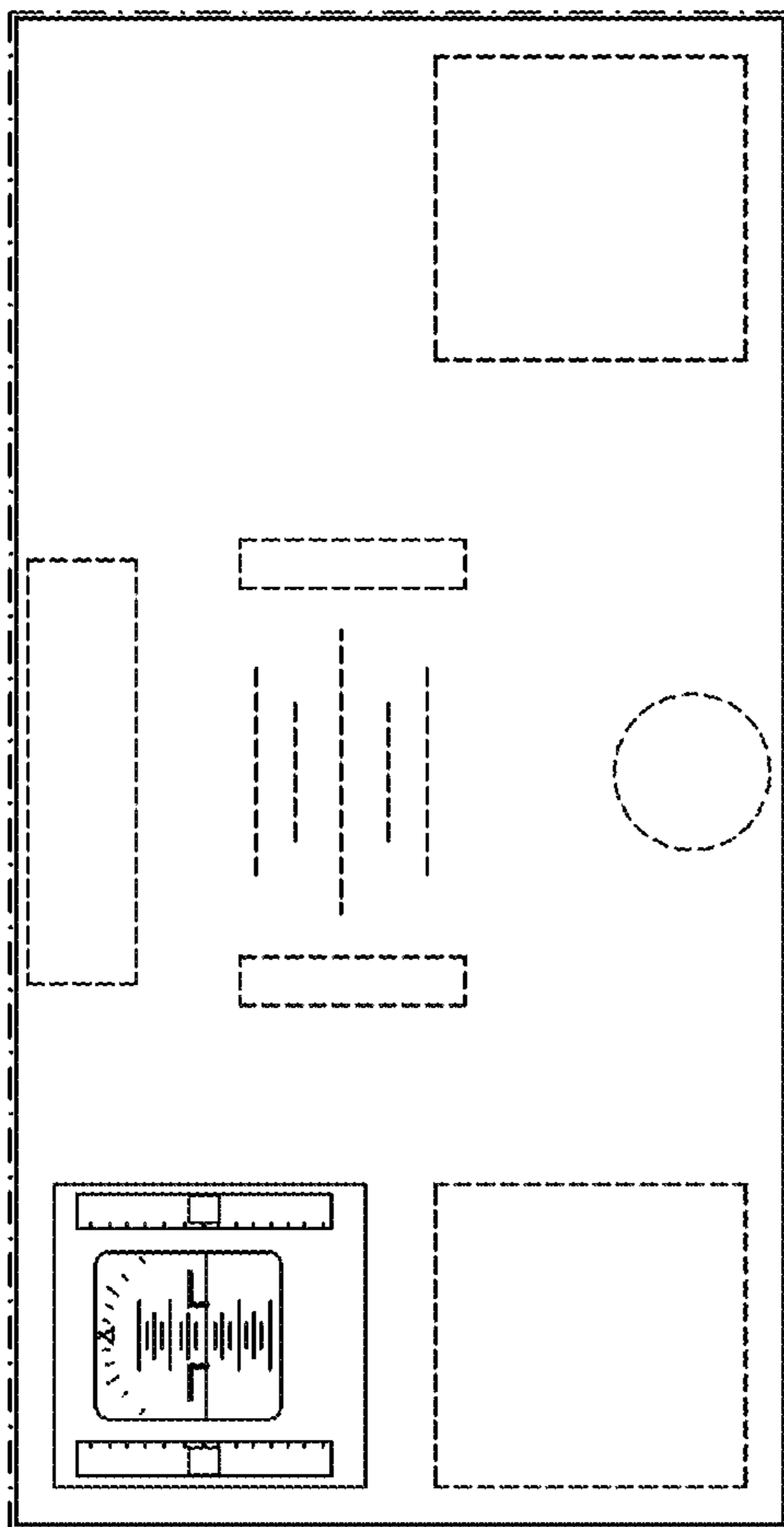


FIG. 13

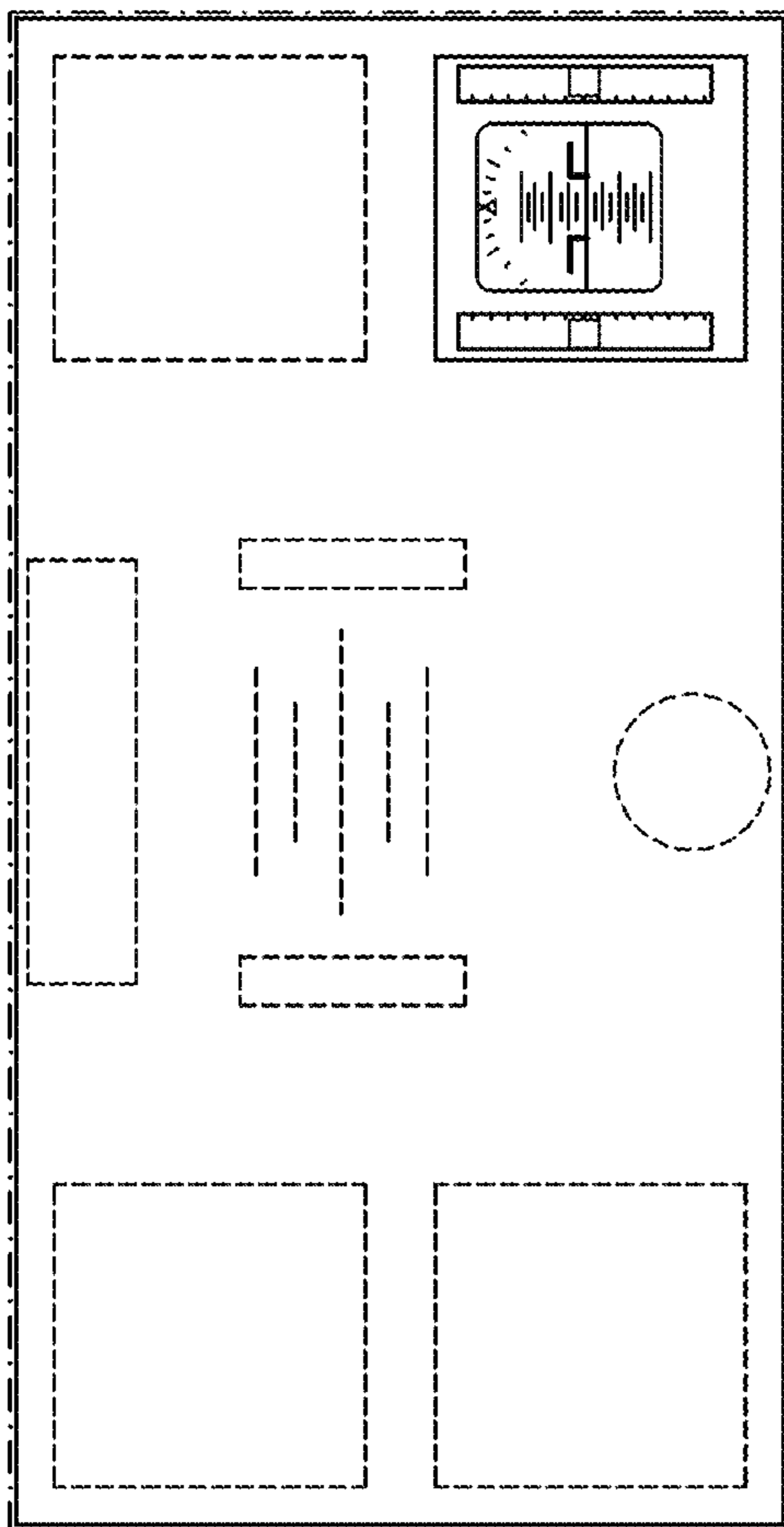


FIG. 14



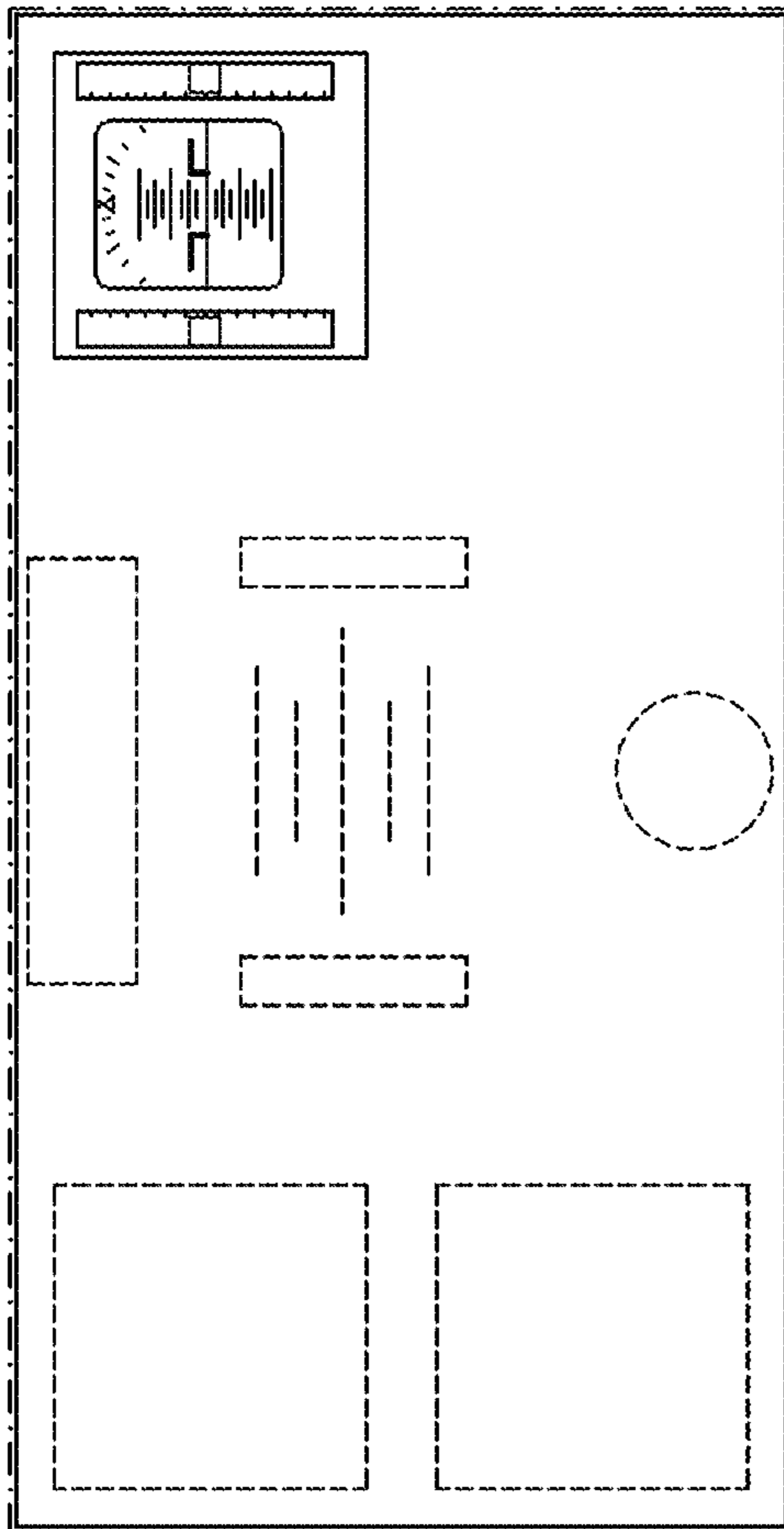


FIG. 15

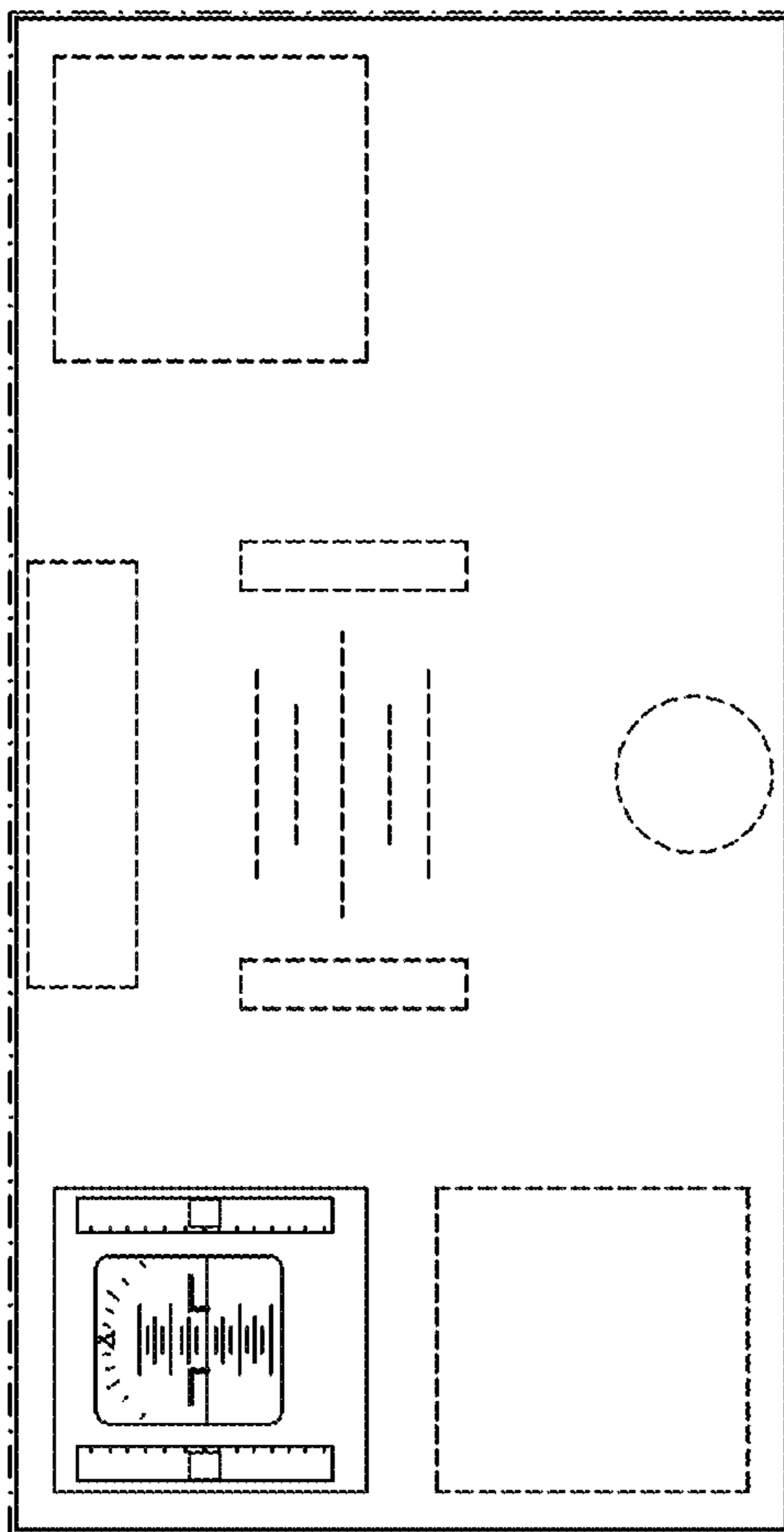


FIG. 16

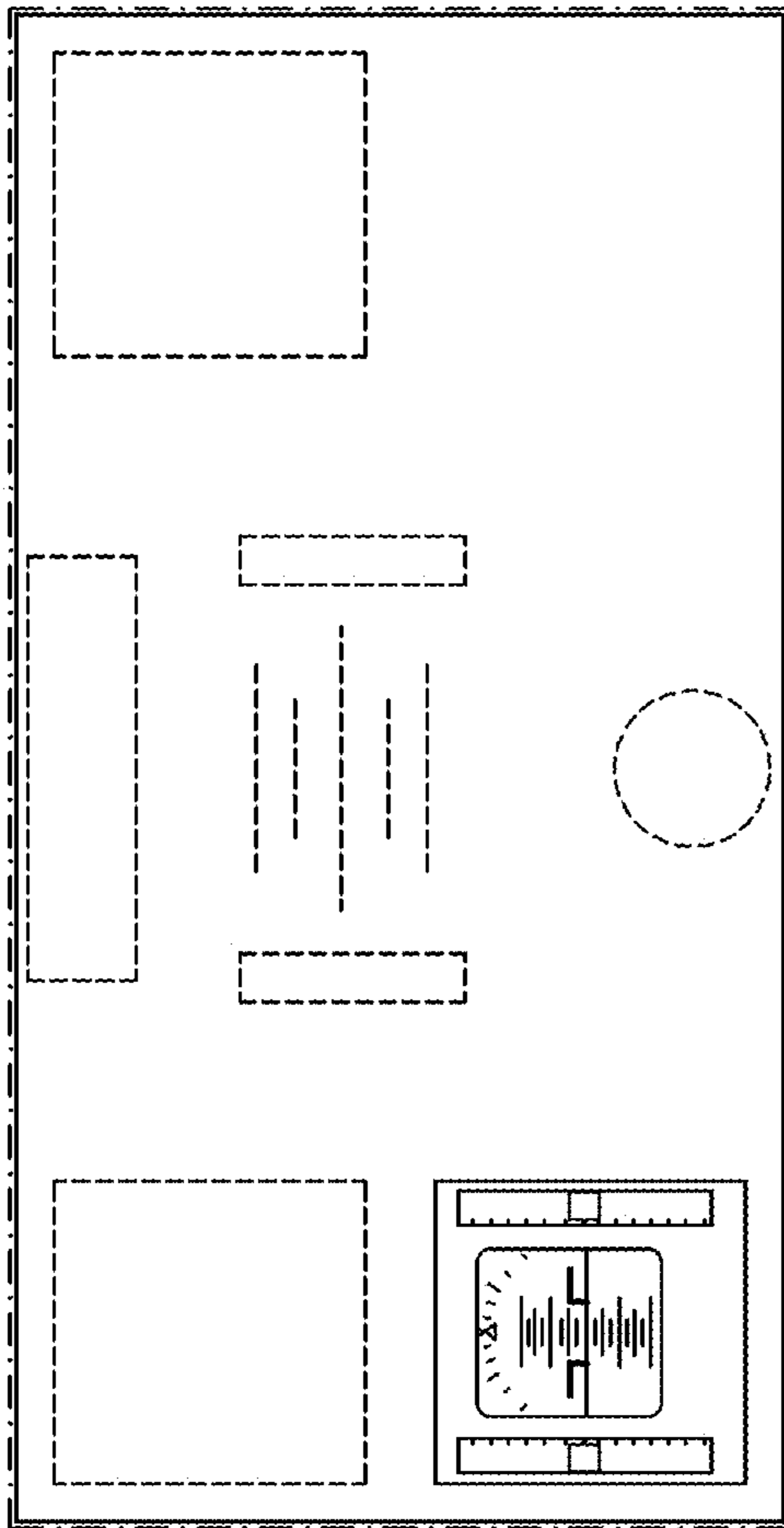


FIG. 17