



US00D939455S

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

(10) **Patent No.:** **US D939,455 S**
(45) **Date of Patent:** **** Dec. 28, 2021**

(54) **FLAT SWITCH AND A FLAT SWITCH MODULE THEREOF**

(71) Applicant: **SCHNEIDER ELECTRIC (AUSTRALIA) PTY LTD**, Macquarie Park (AU)

(72) Inventors: **Zhen Ma**, Shenzhen (CN); **Fuhua Shan**, Shenzhen (CN); **Dahai Zhang**, Shenzhen (CN)

(73) Assignee: **SCHNEIDER ELECTRIC (AUSTRALIA) PTY LTD**, Macquarie Park (AU)

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

(21) Appl. No.: **29/668,154**

(22) Filed: **Oct. 29, 2018**

Related U.S. Application Data

(63) Continuation-in-part of application No. 29/666,753, filed on Oct. 16, 2018, now abandoned.

(51) **LOC (13) Cl.** **13-03**

(52) **U.S. Cl.**
USPC **D13/169**

(58) **Field of Classification Search**
USPC D13/162, 169, 173, 174

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D204,941 S * 5/1966 Ramsing et al. D13/169
5,895,888 A * 4/1999 Arenas H02G 3/14
174/66

(Continued)

Primary Examiner — Selina Sikder

(74) *Attorney, Agent, or Firm* — Locke Lord LLP

(57) **CLAIM**

The ornamental design for a flat switch and a flat switch module thereof, as shown and described.

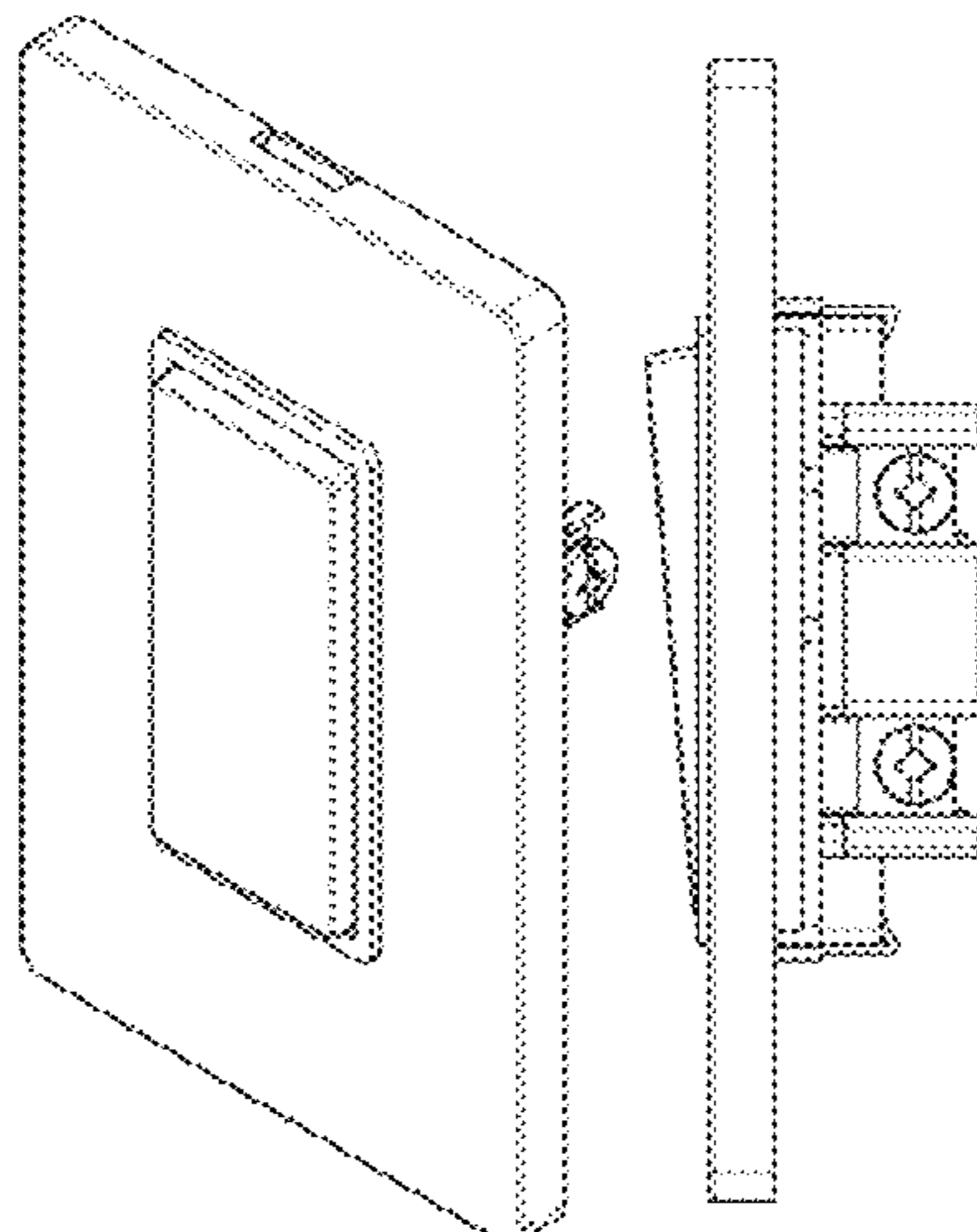
DESCRIPTION

FIG. 1 is a front view showing the off status of a flat switch of the first embodiment;

FIG. 2 is a right side view of the flat switch in FIG. 1; FIG. 3 is a left side view of the flat switch in FIG. 1; FIG. 4 is a top view of the flat switch in FIG. 1; FIG. 5 is a bottom view of the flat switch in FIG. 1; FIG. 6 is a perspective view of the flat switch in FIG. 1; FIG. 7 is a front view showing the on status of the flat switch of the first embodiment; FIG. 8 is a right side view of the flat switch in FIG. 7; FIG. 9 is a left side view of the flat switch in FIG. 7; FIG. 10 is a top view of the flat switch in FIG. 7; FIG. 11 is a bottom view of the flat switch in FIG. 7; FIG. 12 is a perspective view of the flat switch in FIG. 7; FIG. 13 is a front view showing the off status of a flat switch of the second embodiment; FIG. 14 is a right side view of the flat switch in FIG. 13; FIG. 15 is a left side view of the flat switch in FIG. 13; FIG. 16 is a top view of the flat switch in FIG. 13; FIG. 17 is a bottom view of the flat switch in FIG. 13; FIG. 18 is a perspective view of the flat switch in FIG. 13; FIG. 19 is a front view showing the on status of the flat switch of the second embodiment; FIG. 20 is a right side view of the flat switch in FIG. 19; FIG. 21 is a left side view of the flat switch in FIG. 19; FIG. 22 is a top view of the flat switch in FIG. 19; FIG. 23 is a bottom view of the flat switch in FIG. 19; FIG. 24 is a perspective view of the flat switch in FIG. 19; FIG. 25 is a front view showing the off status of a flat switch of the third embodiment; FIG. 26 is a right side view of the flat switch in FIG. 25; FIG. 27 is a left side view of the flat switch in FIG. 25; FIG. 28 is a top view of the flat switch in FIG. 25; FIG. 29 is a bottom view of the flat switch in FIG. 25; FIG. 30 is a perspective view of the flat switch in FIG. 25; FIG. 31 is a front view showing the on status of the flat switch of the third embodiment; FIG. 32 is a right side view of the flat switch in FIG. 31; FIG. 33 is a left side view of the flat switch in FIG. 31; FIG. 34 is a top view of the flat switch in FIG. 31; FIG. 35 is a bottom view of the flat switch in FIG. 31; FIG. 36 is a perspective view of the flat switch in FIG. 31; and, FIG. 37 is a right side perspective view of the flat switch in FIG. 1.

Any subject matter shown in broken lines is environmental and forms no part of the claimed design.

1 Claim, 31 Drawing Sheets



(58) **Field of Classification Search**

CPC .. H01H 9/02; H01H 9/16; H01H 9/18; H01H
 9/181; H01H 9/182; H01H 13/023; H01H
 13/04; H01H 13/06; H01H 2009/187;
 H01H 23/02; H01H 23/025; H01H 23/04;
 H01H 23/08; H01H 23/12; H01H 23/14;
 H01H 23/43; H01H 23/145; H01H
 23/164; H05B 39/02; H05B 39/04; H05B
 39/085; H05B 39/086; H05B 39/088;
 G08C 17/02

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D534,875	S *	1/2007	Wu	.....	D13/169
D576,566	S *	9/2008	Wu	.....	D13/169
7,482,534	B2 *	1/2009	Ye	.....	H01H 3/0213 174/17 VA
D609,650	S *	2/2010	Chou	.....	D13/169
D830,976	S *	10/2018	Liao	.....	D13/169
D830,977	S *	10/2018	Liao	.....	D13/169
D859,328	S *	9/2019	Gutierrez	.....	D13/169
2005/0115818	A1 *	6/2005	Kurek	.....	H02G 3/14 200/553
2007/0193863	A1 *	8/2007	Wu	.....	H01H 3/161 200/61.72
2011/0259720	A1 *	10/2011	Wu	.....	H01H 23/025 200/317
2016/0020047	A1 *	1/2016	Hill	.....	G06Q 30/0283 340/12.5
2020/0043683	A1 *	2/2020	Zhang	.....	H01H 23/08
2020/0126739	A1 *	4/2020	Shan	.....	H01H 23/04

* cited by examiner

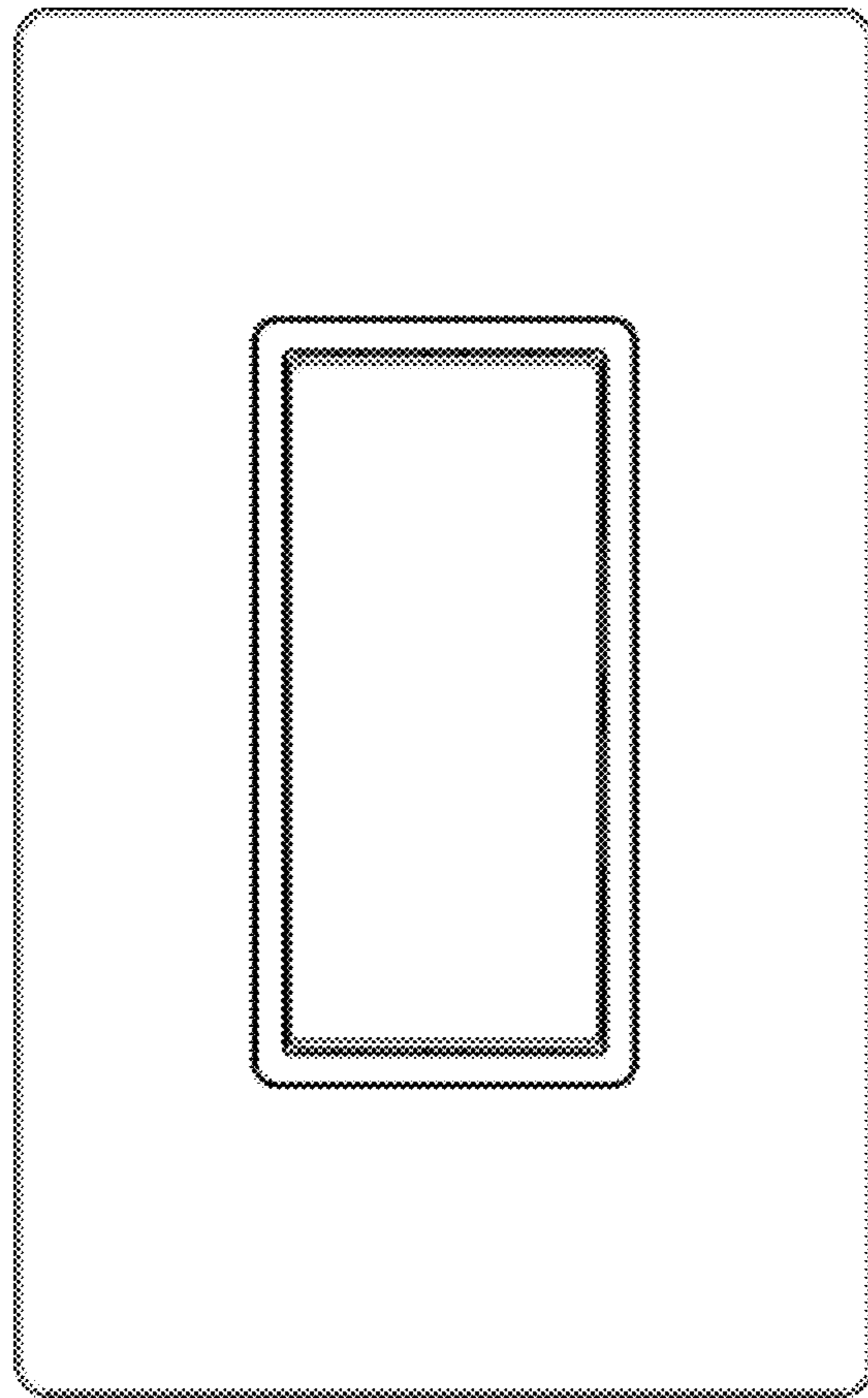


Fig. 1

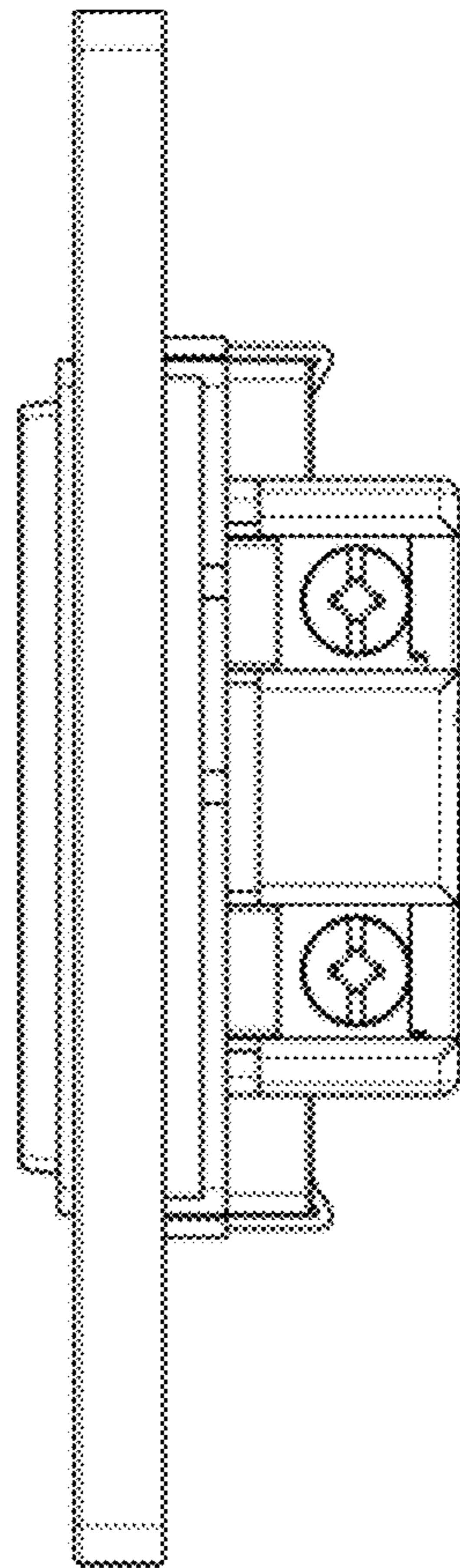


Fig. 2

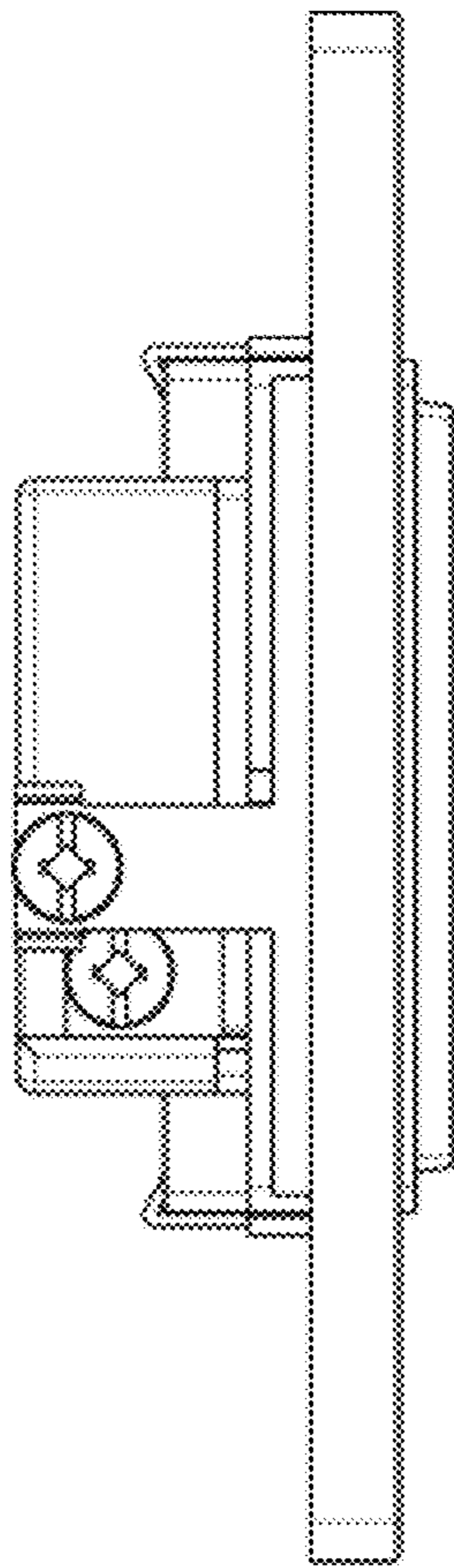


Fig. 3

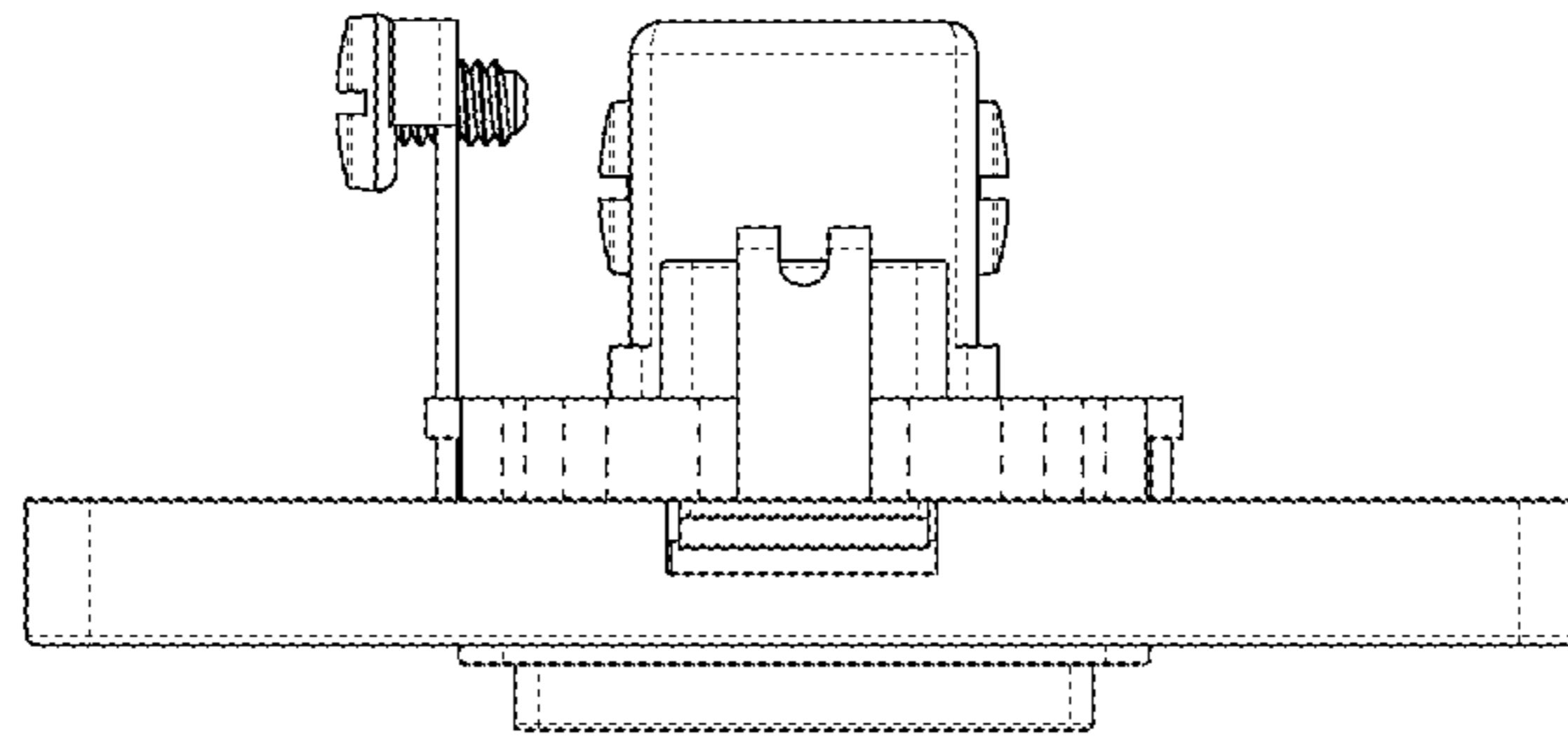


Fig. 4

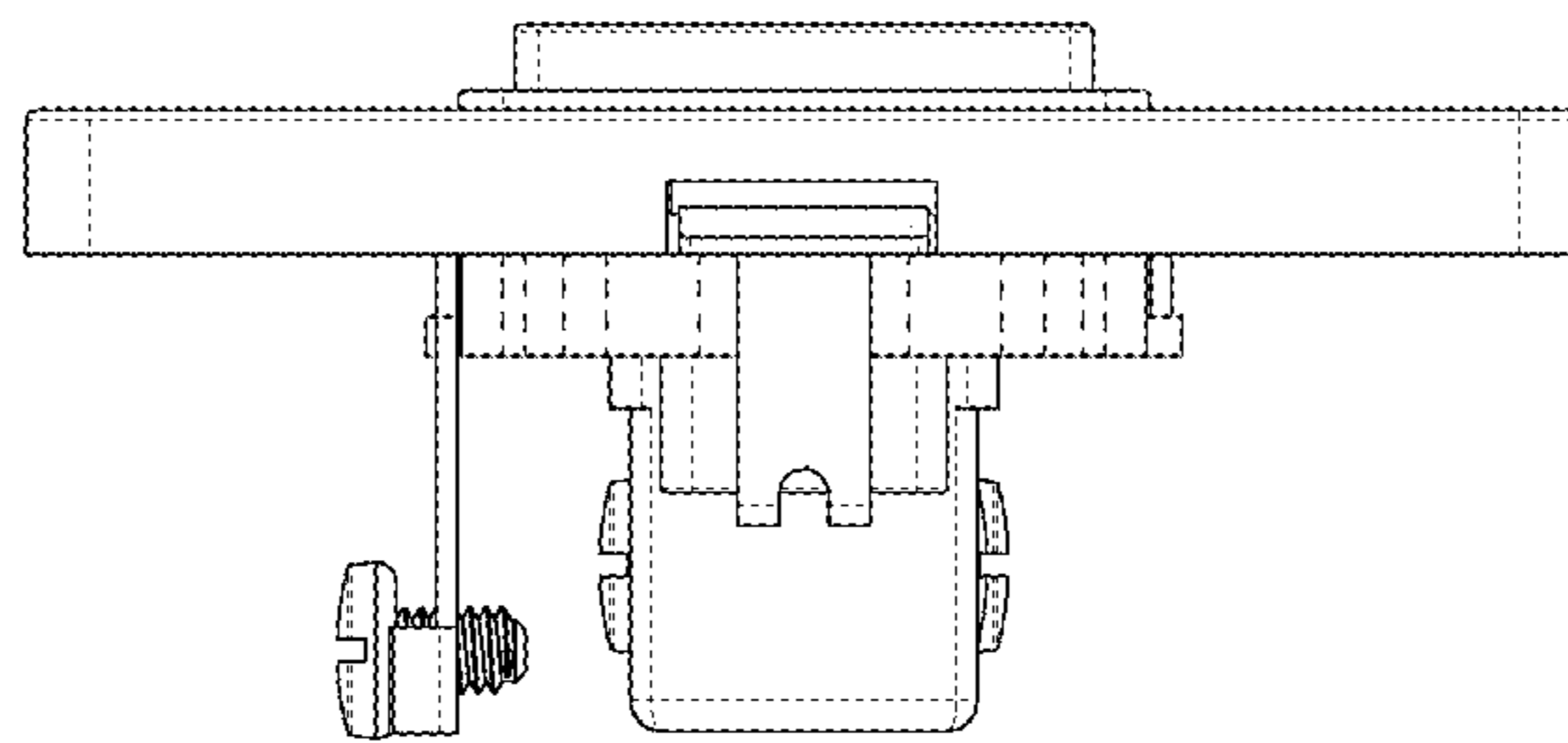


Fig. 5

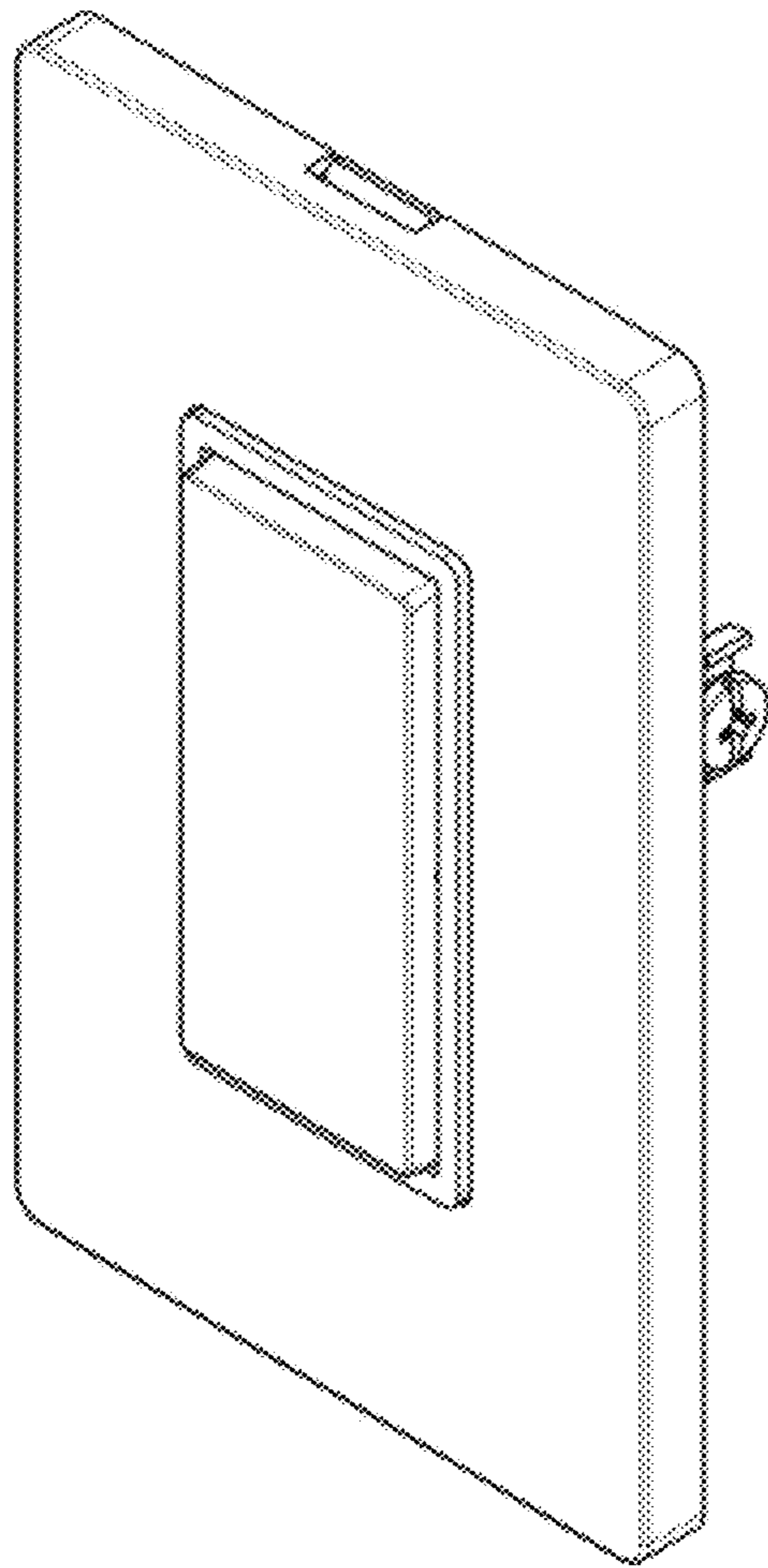


Fig. 6

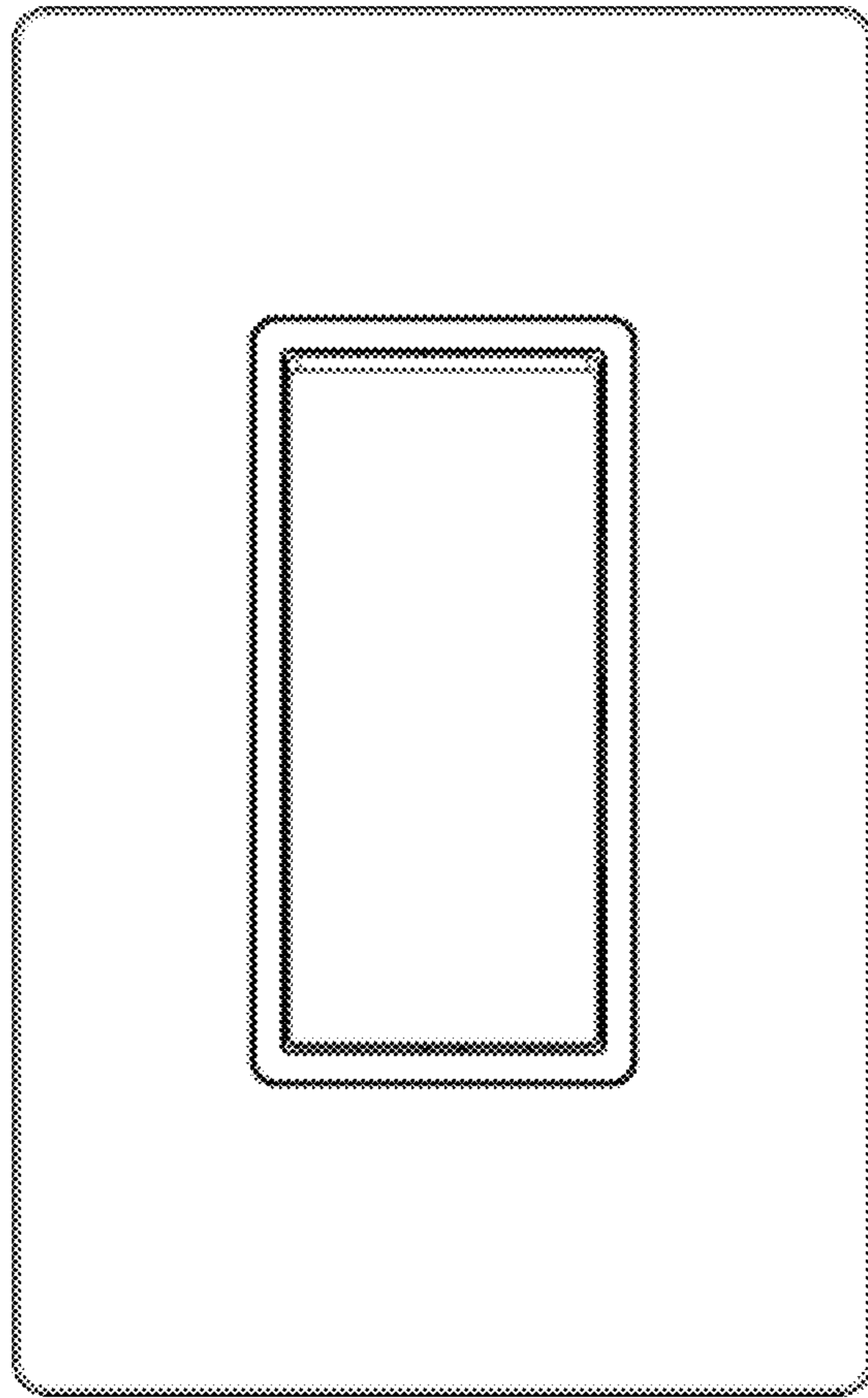


Fig. 7

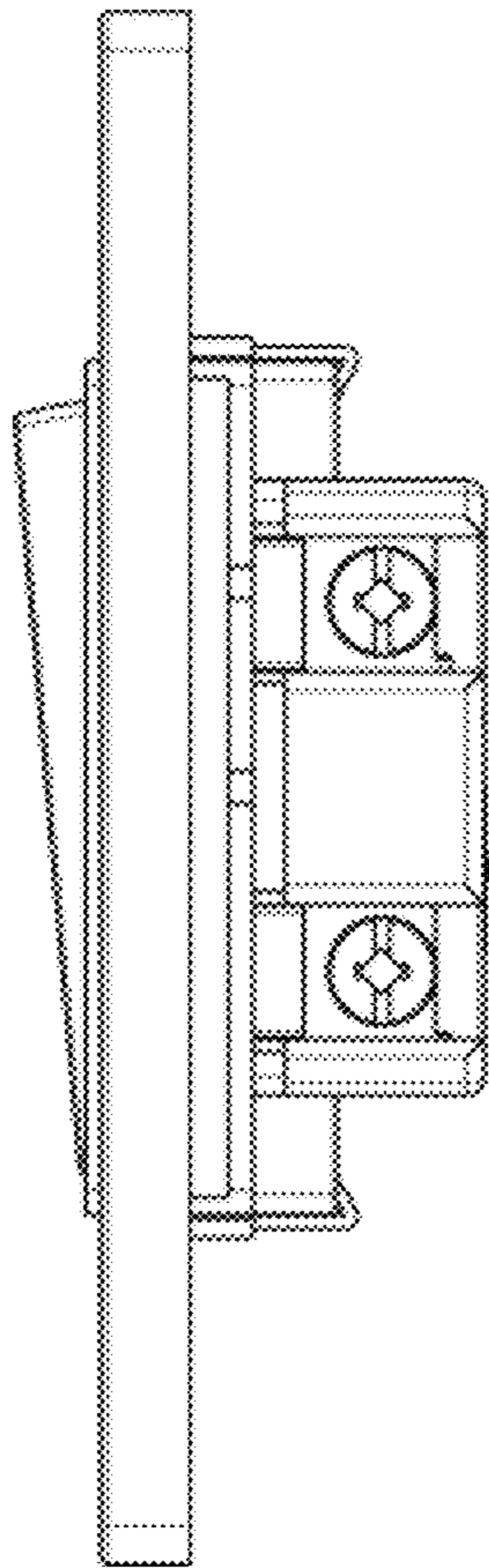


Fig. 8

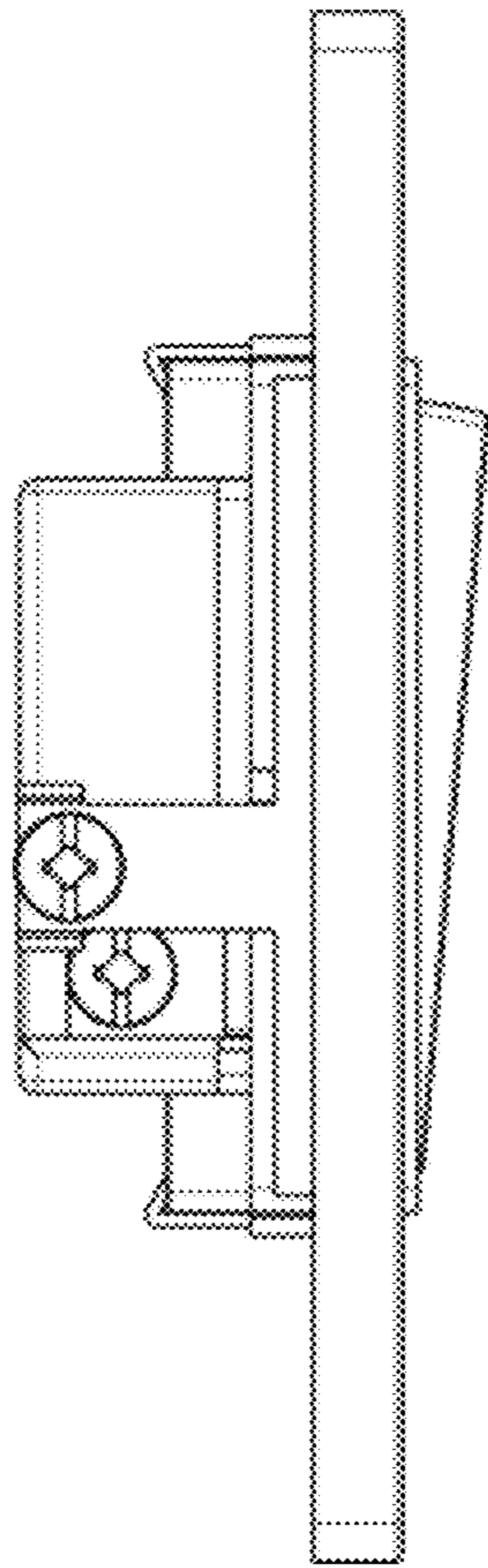


Fig. 9

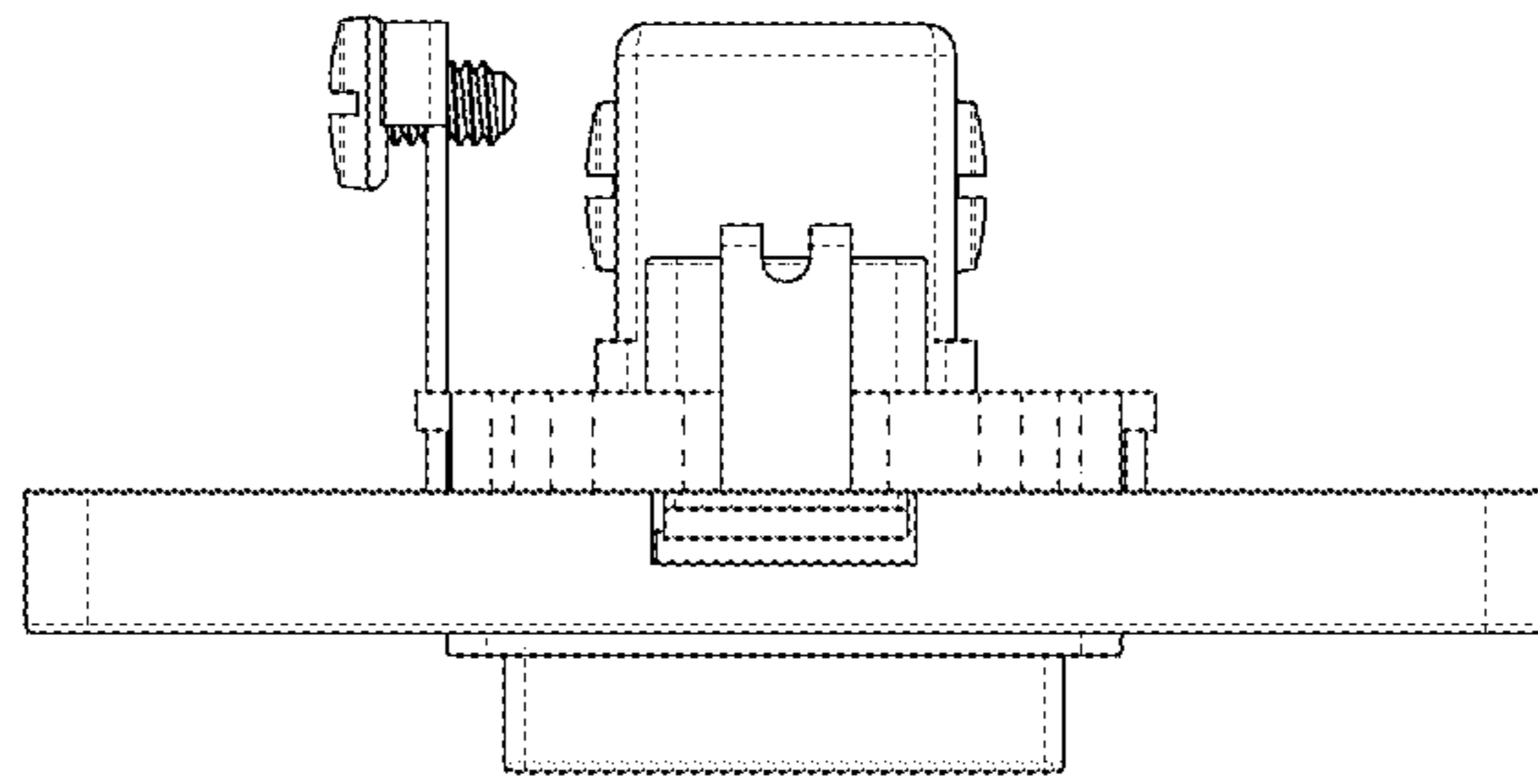


Fig. 10

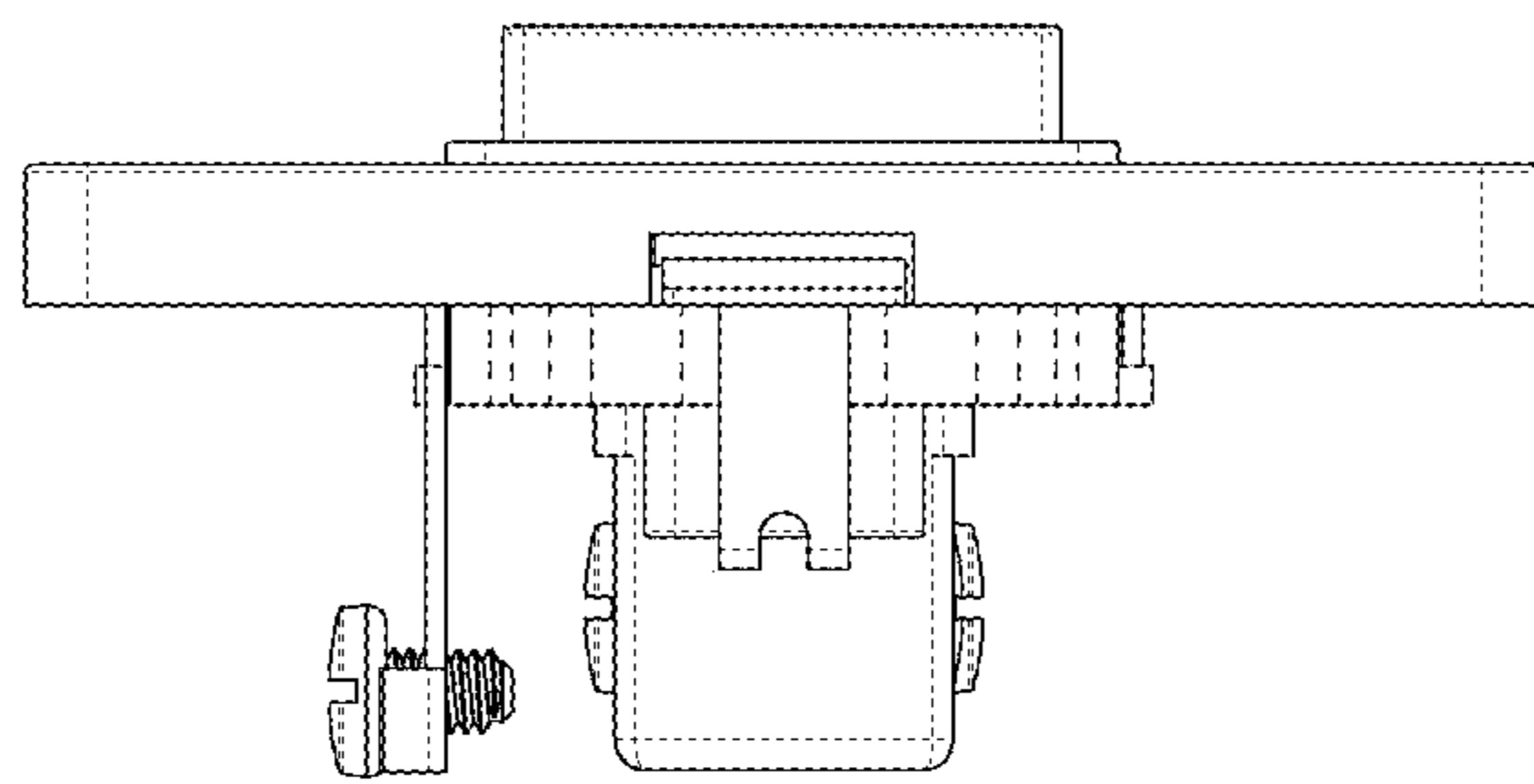


Fig. 11

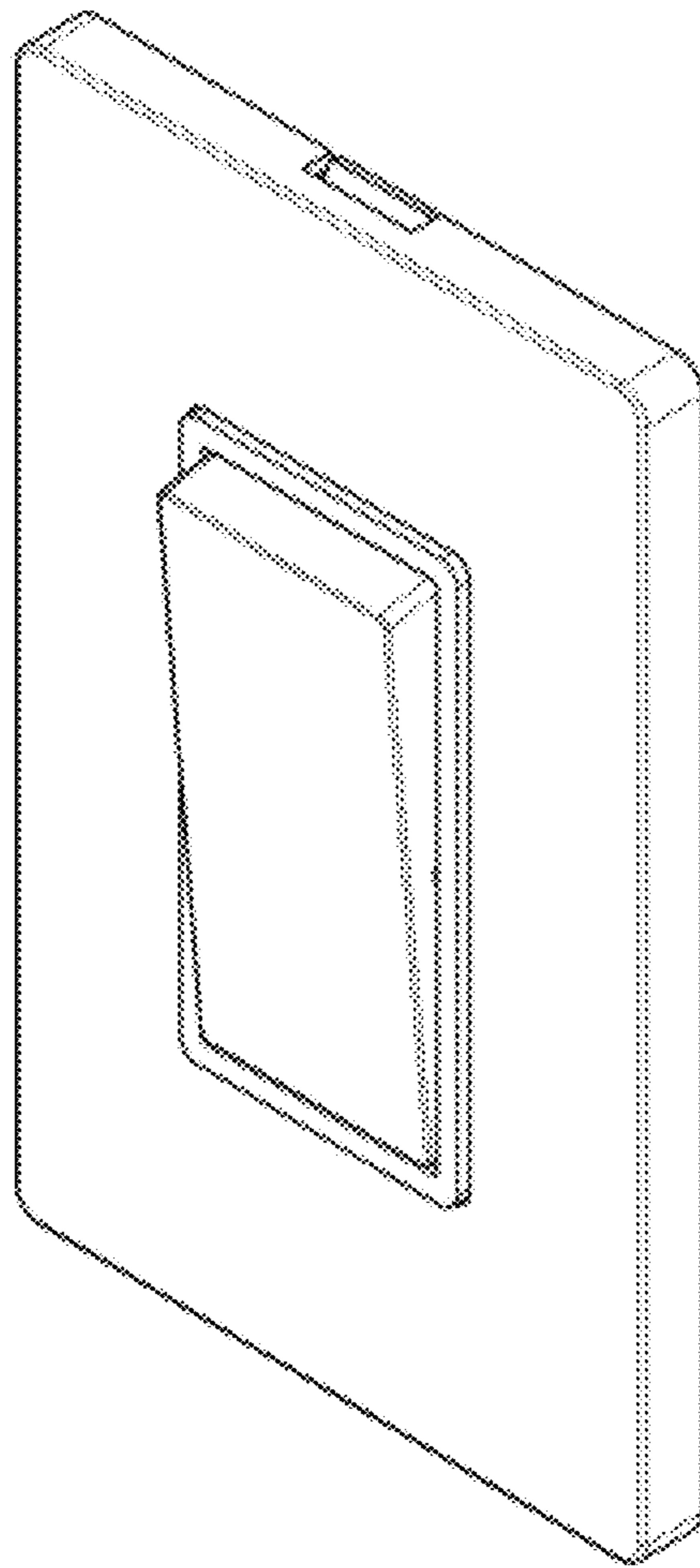


Fig. 12

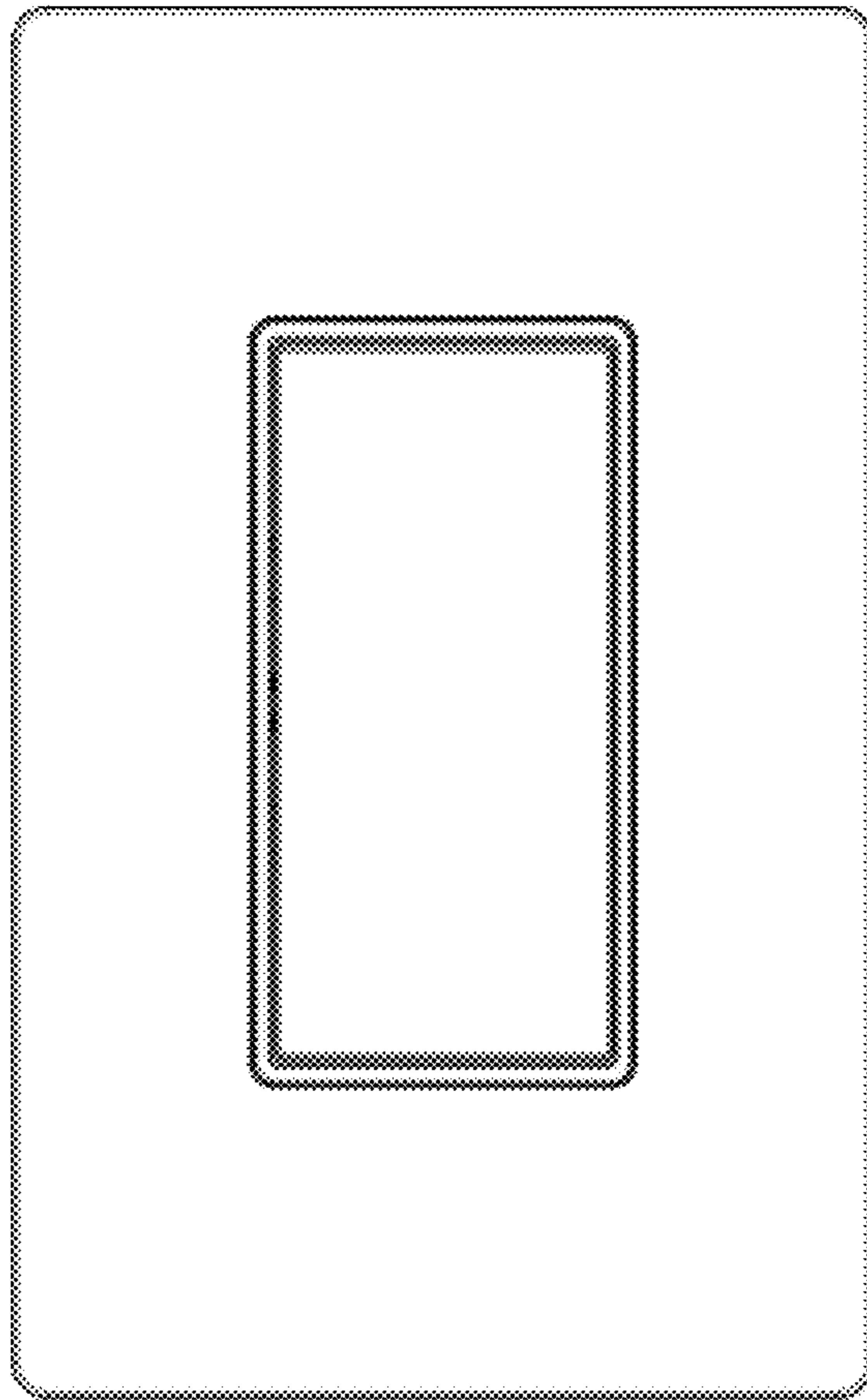


Fig. 13

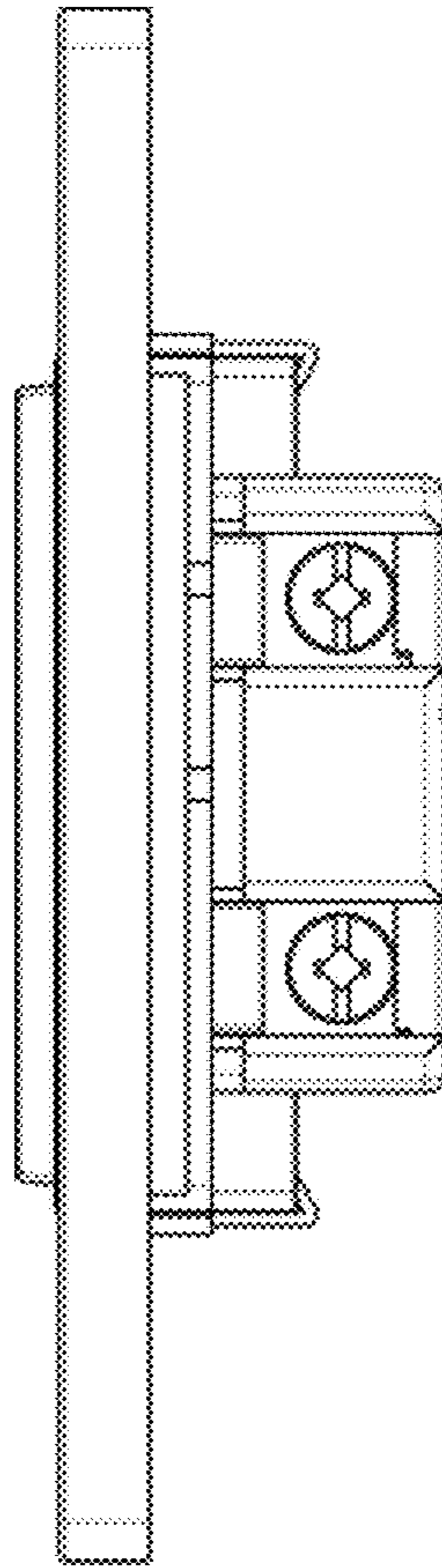


Fig. 14

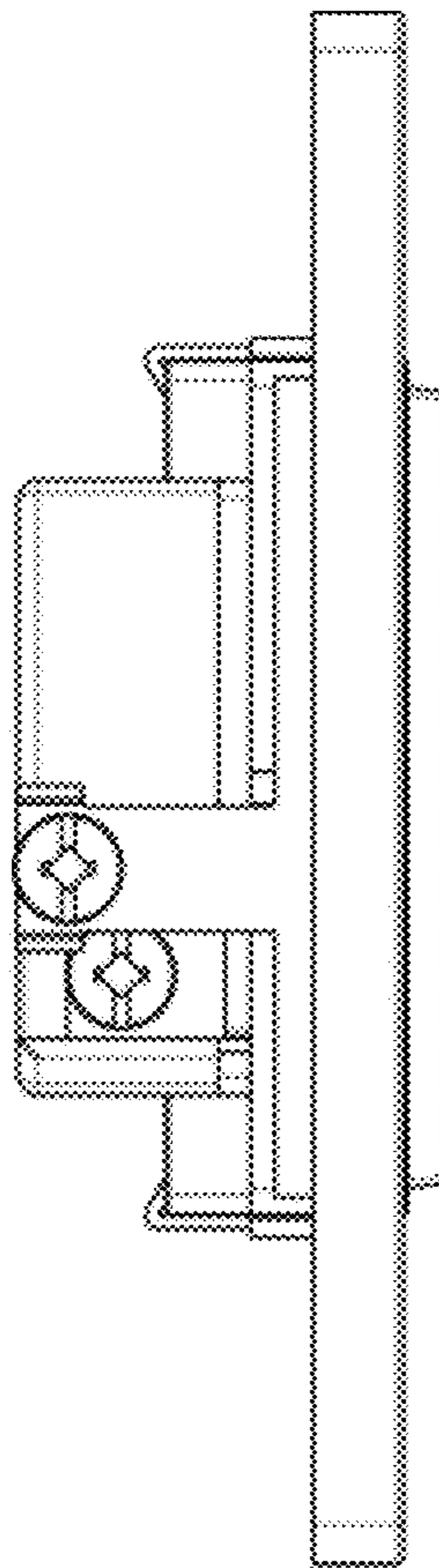


Fig. 15

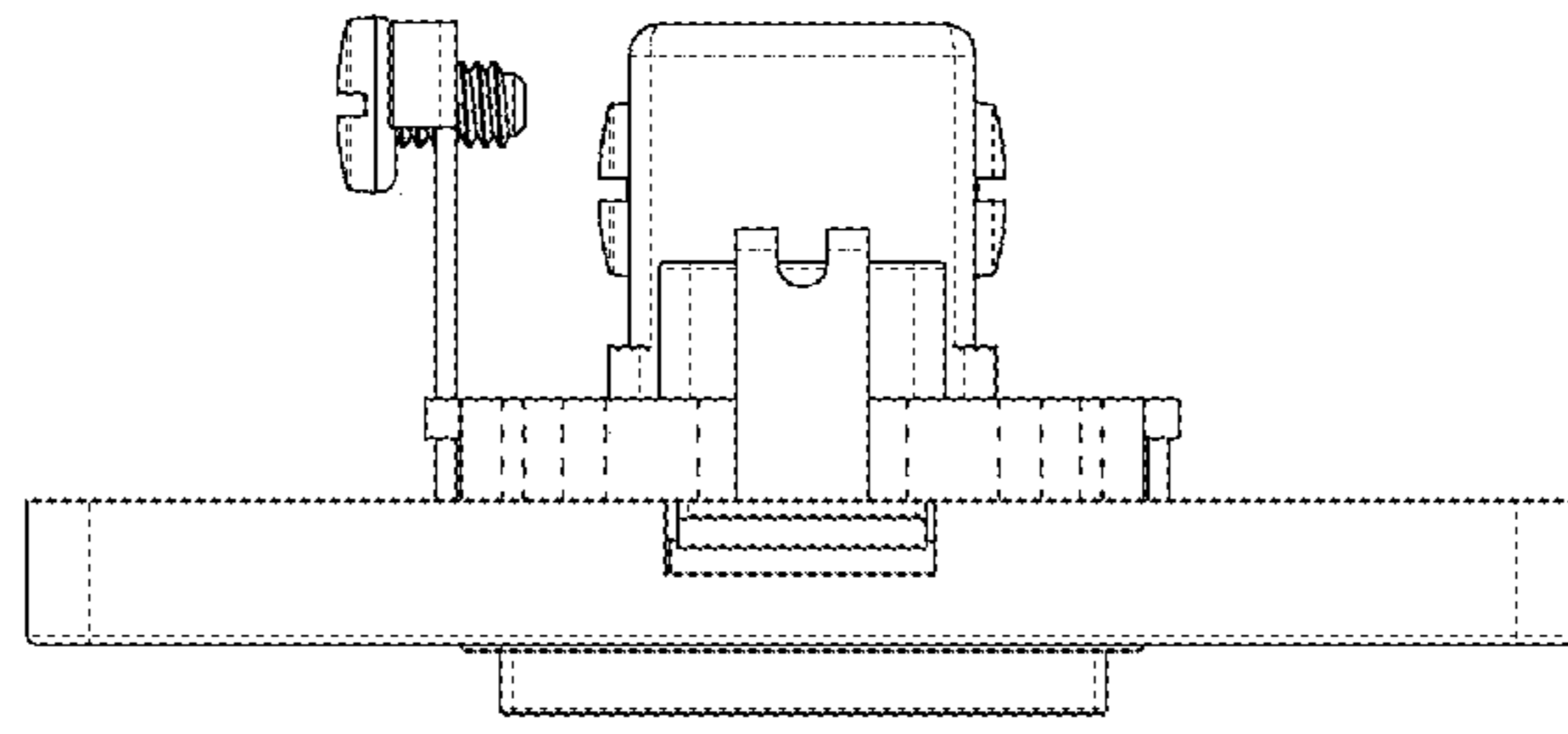


Fig. 16

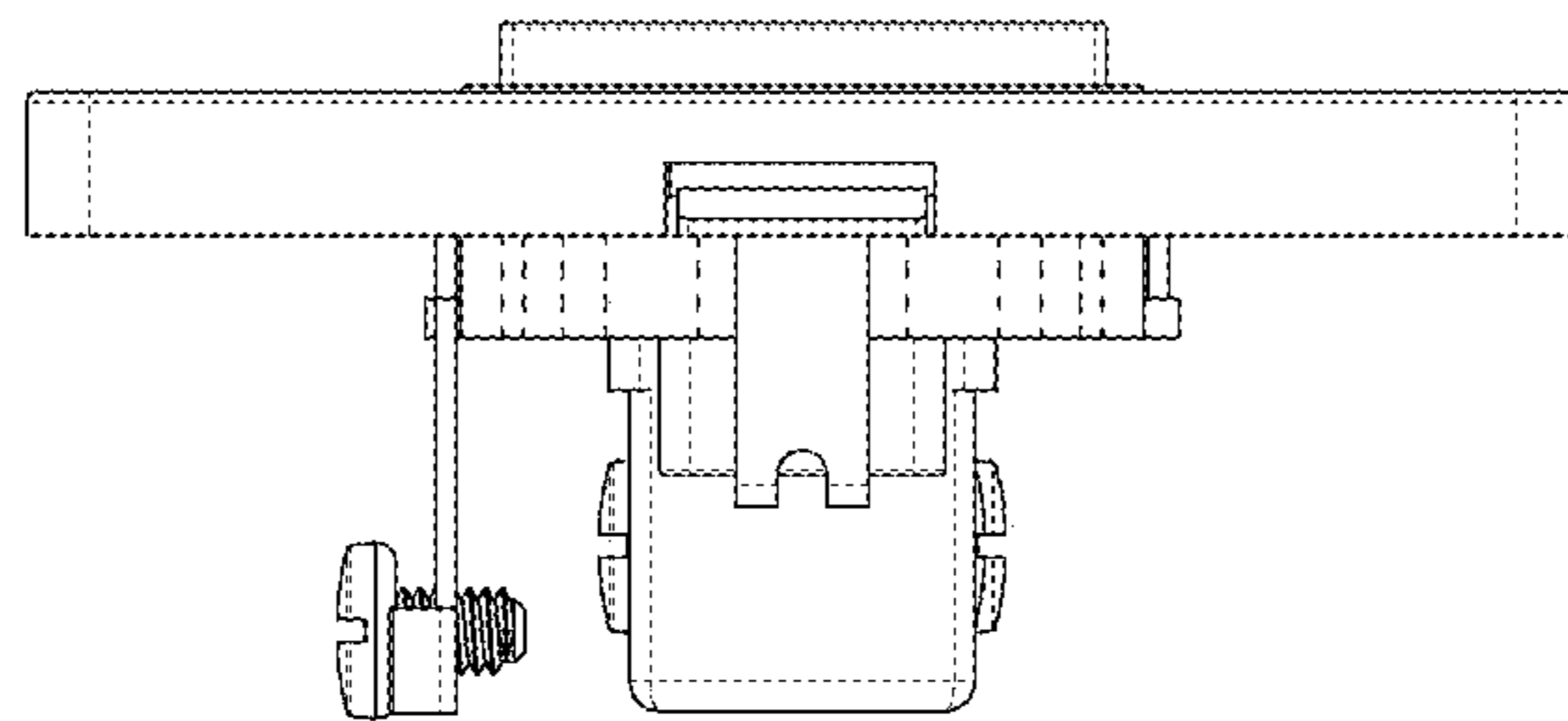


Fig. 17

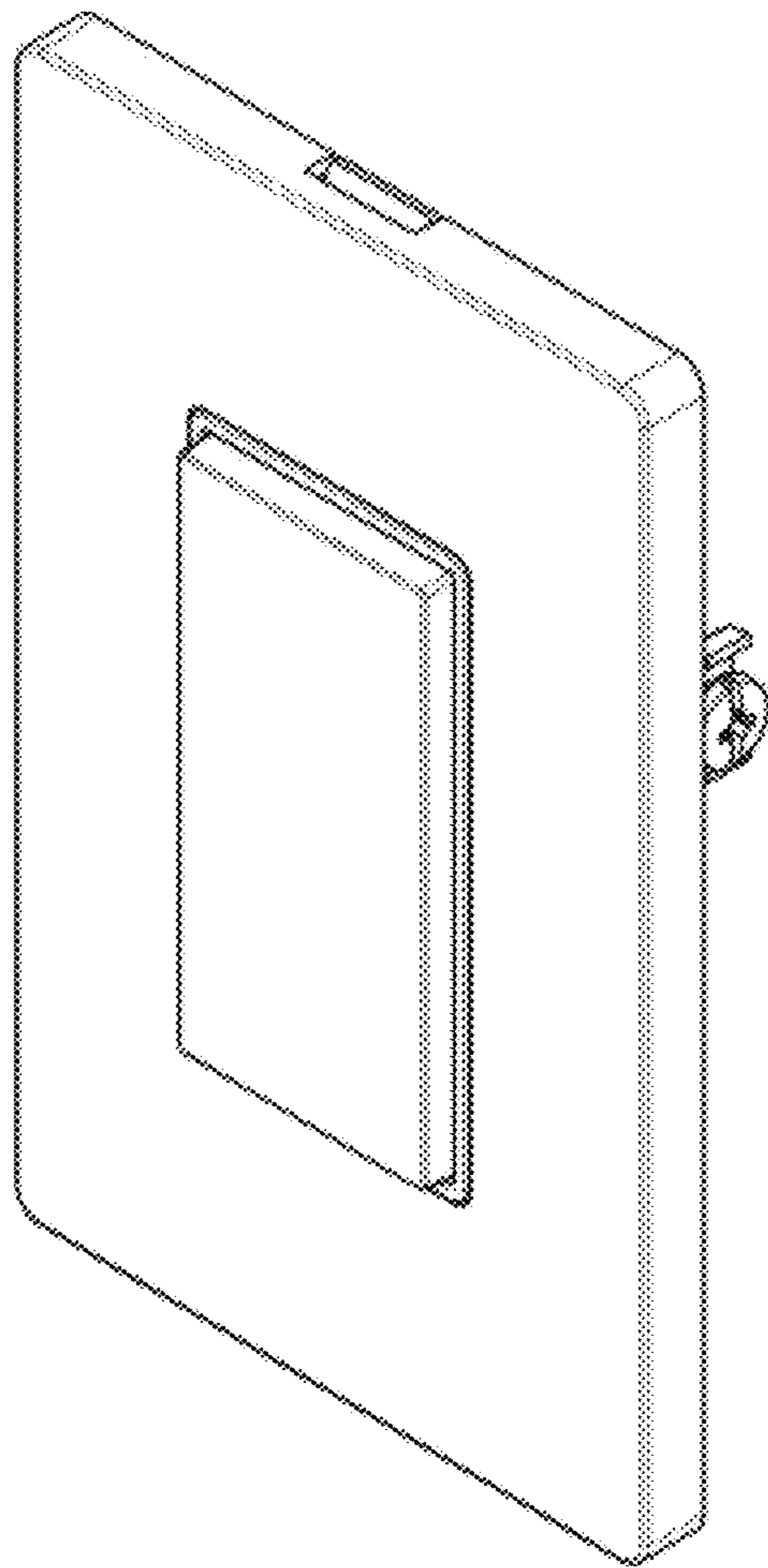


Fig. 18

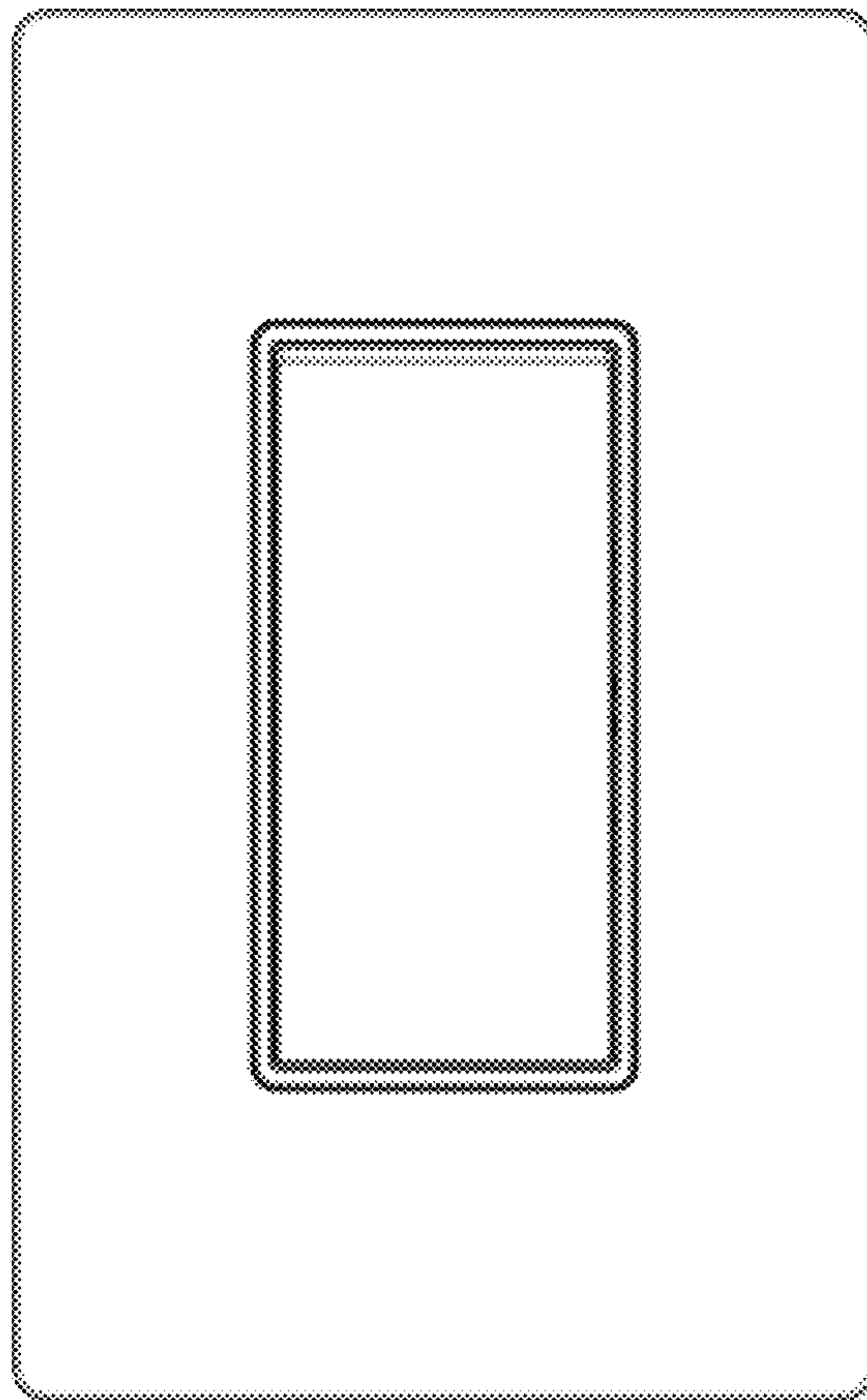


Fig. 19

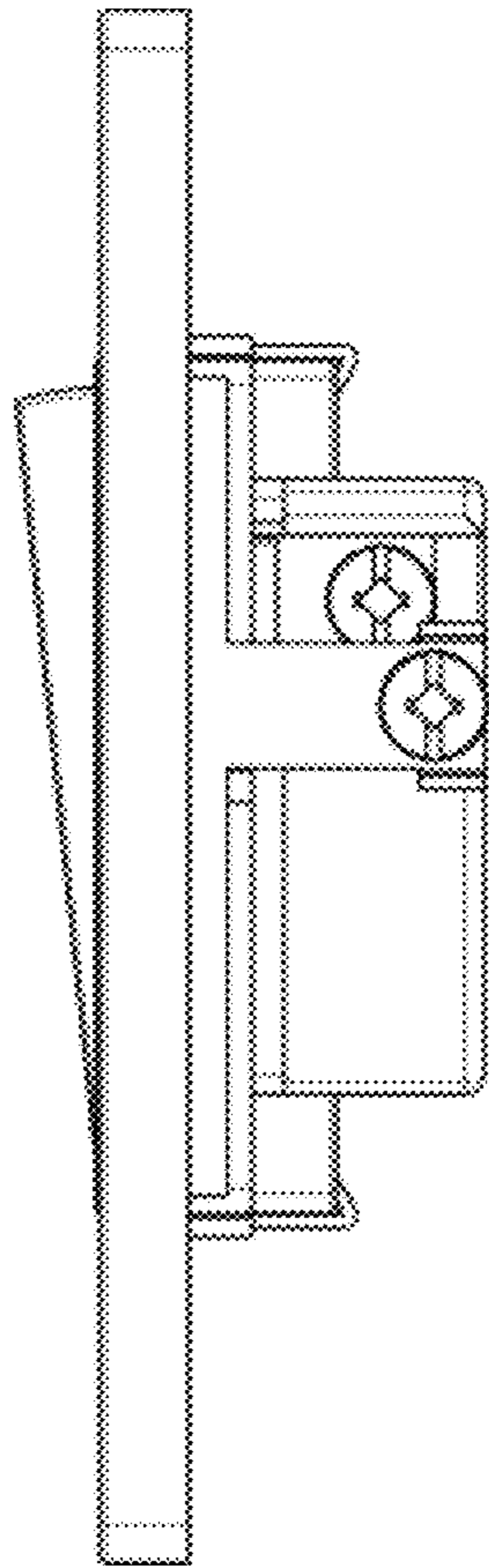


Fig. 20

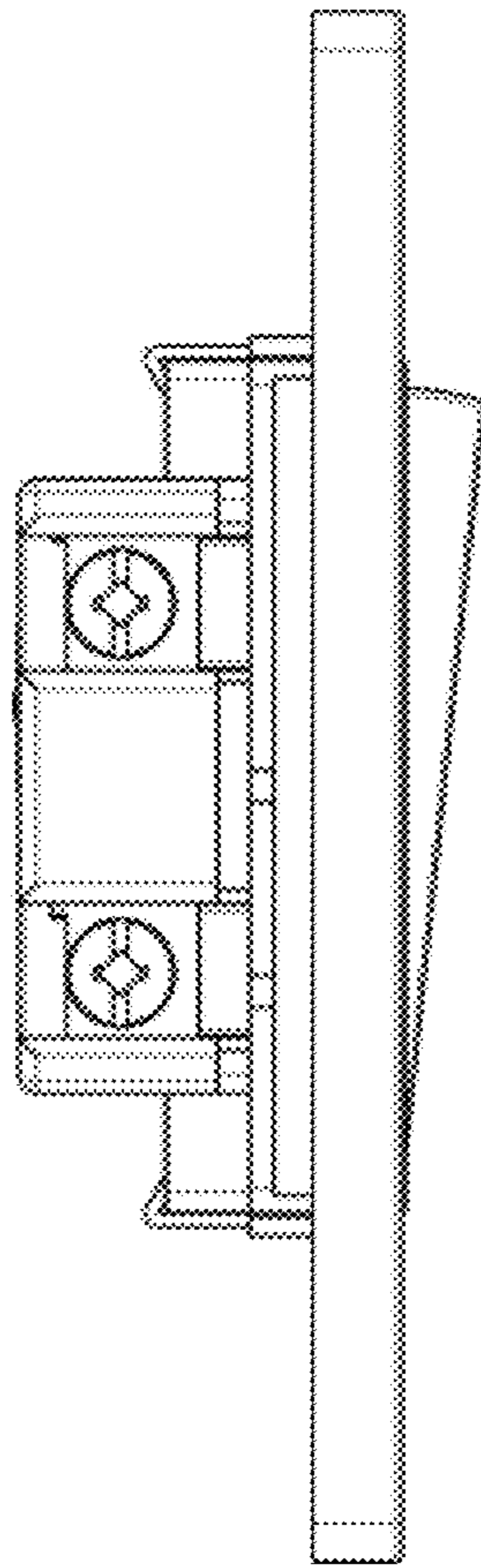


Fig. 21

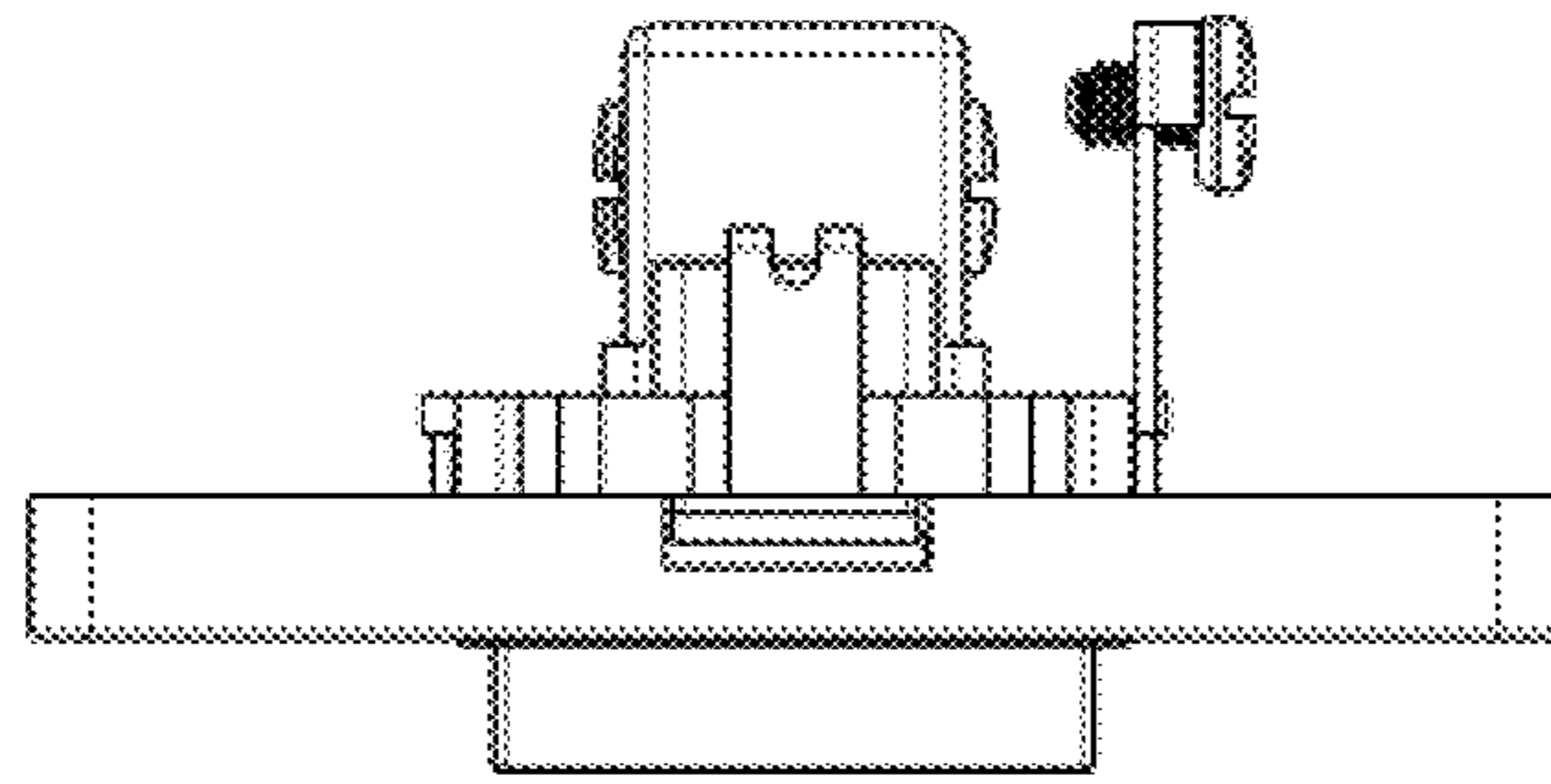


Fig. 22

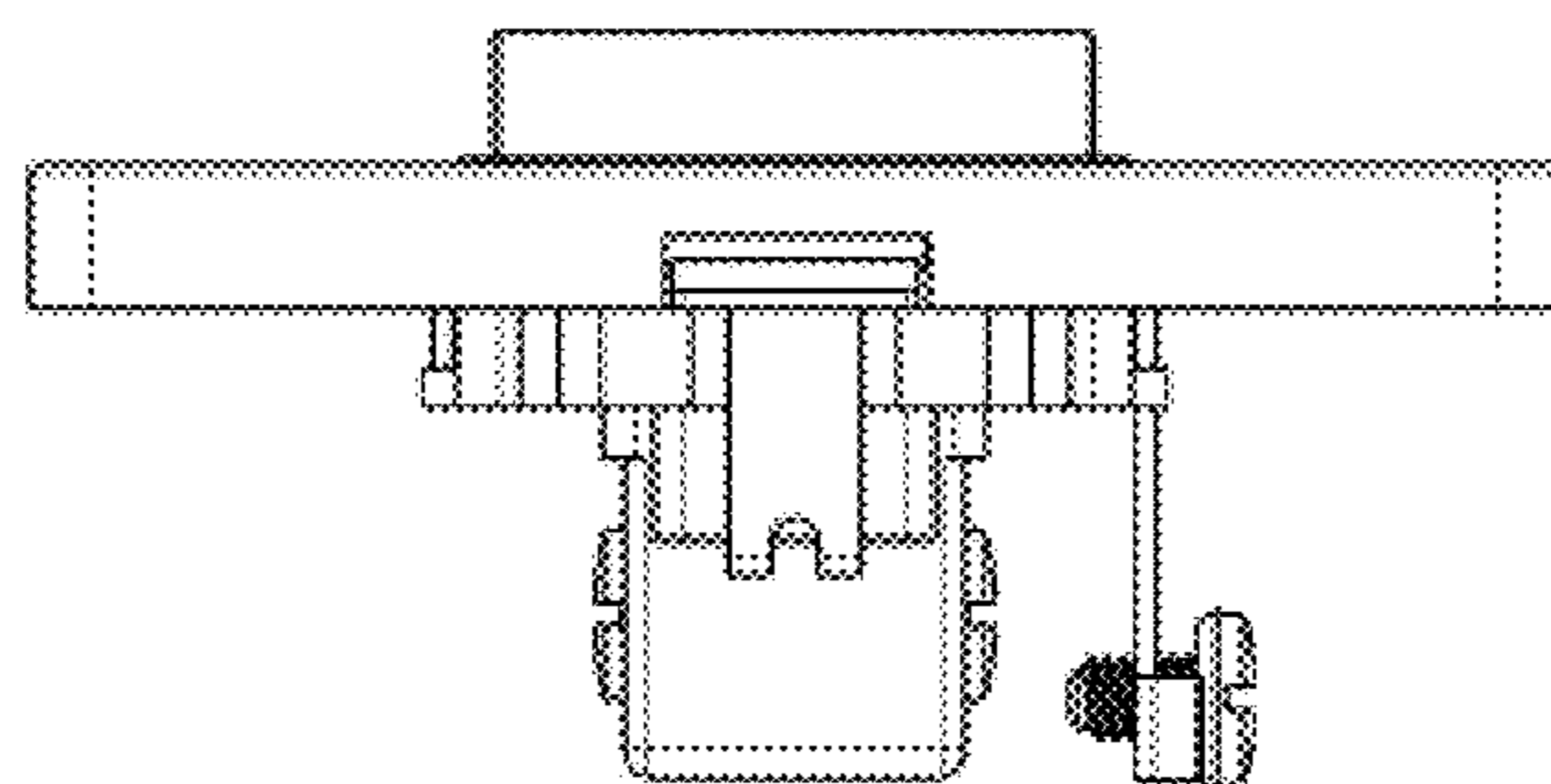


Fig. 23

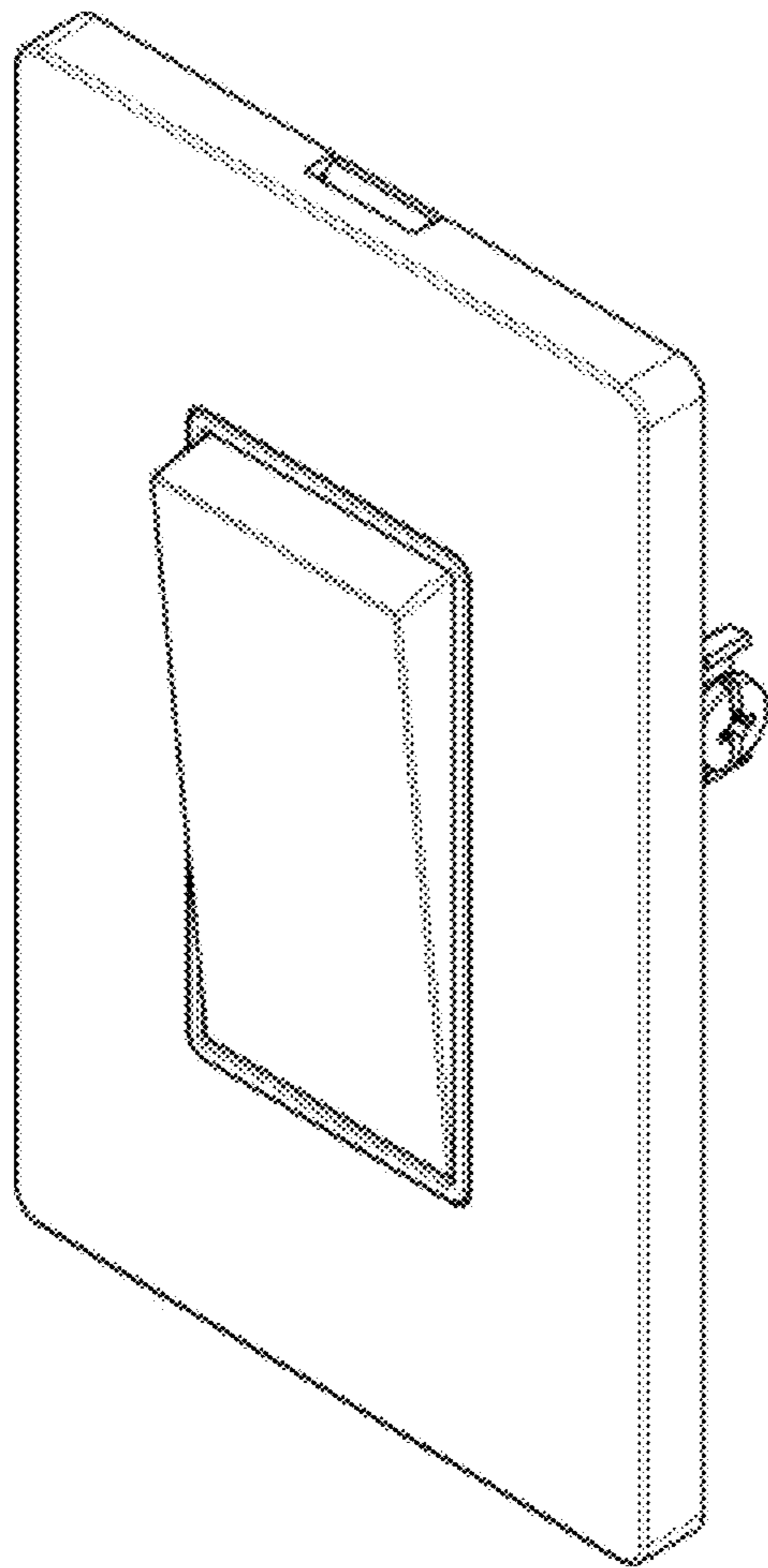


Fig. 24

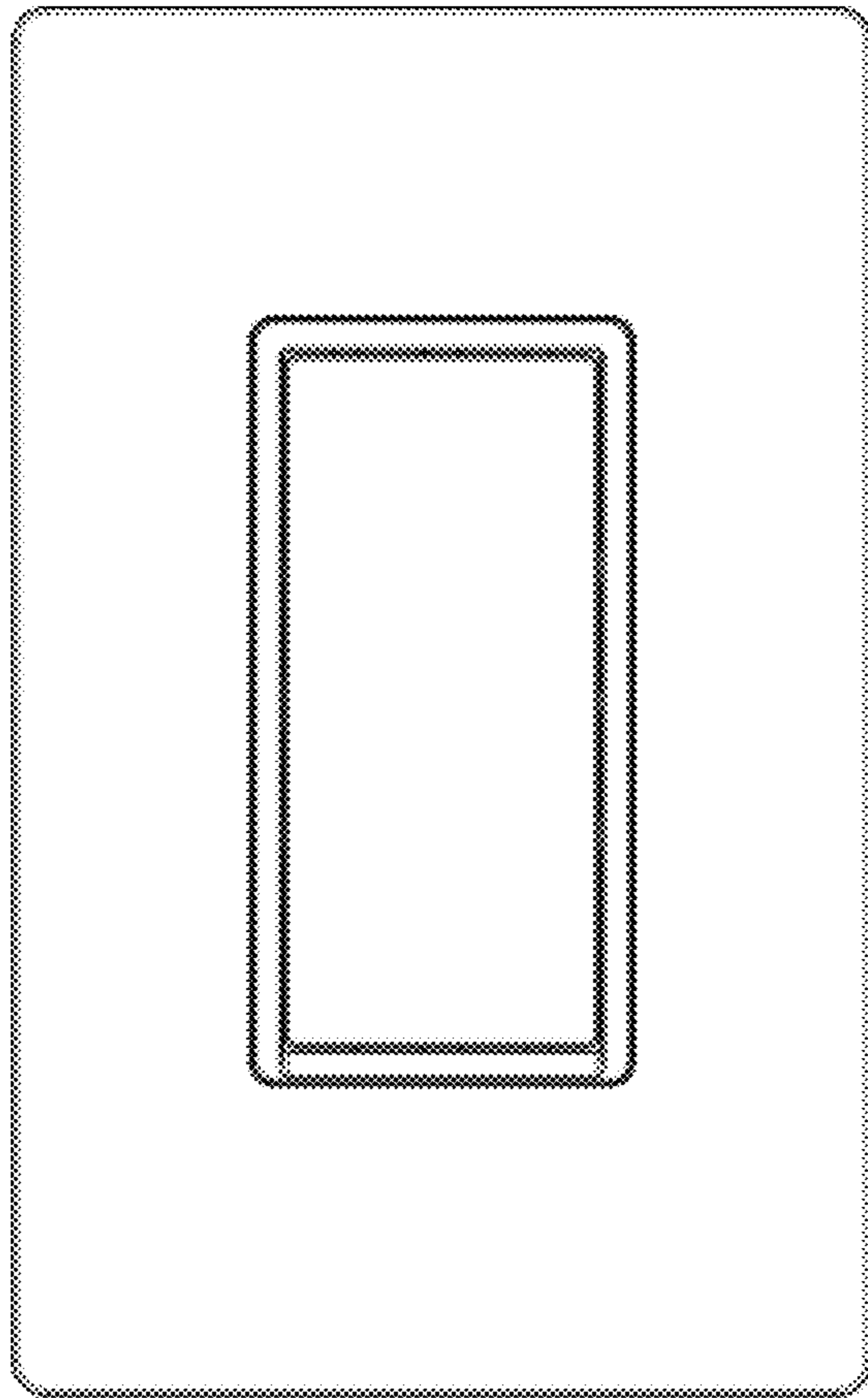


Fig. 25

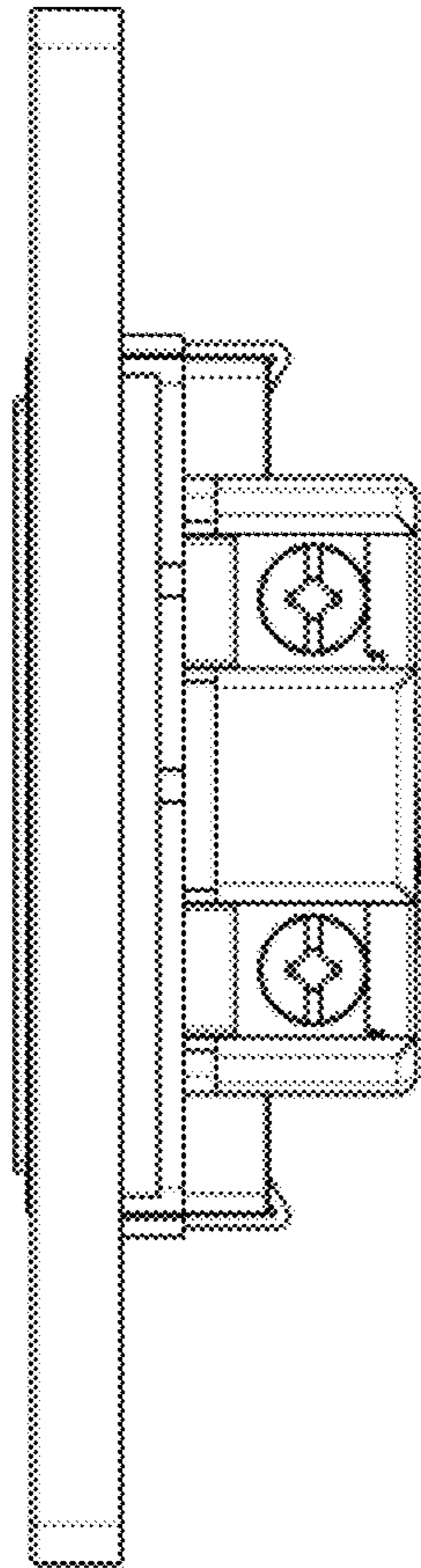


Fig. 26

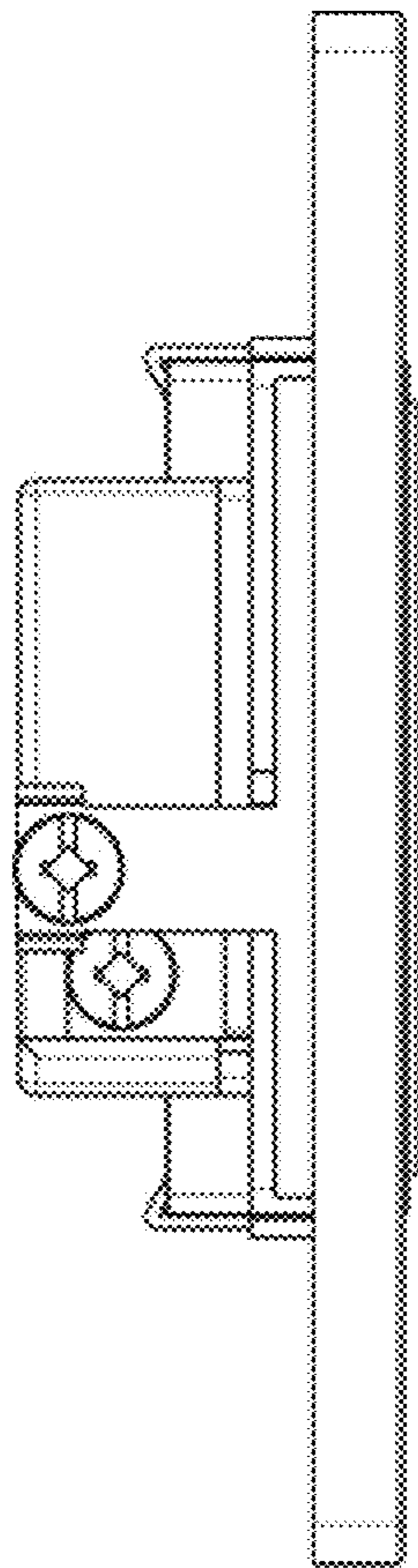


Fig. 27

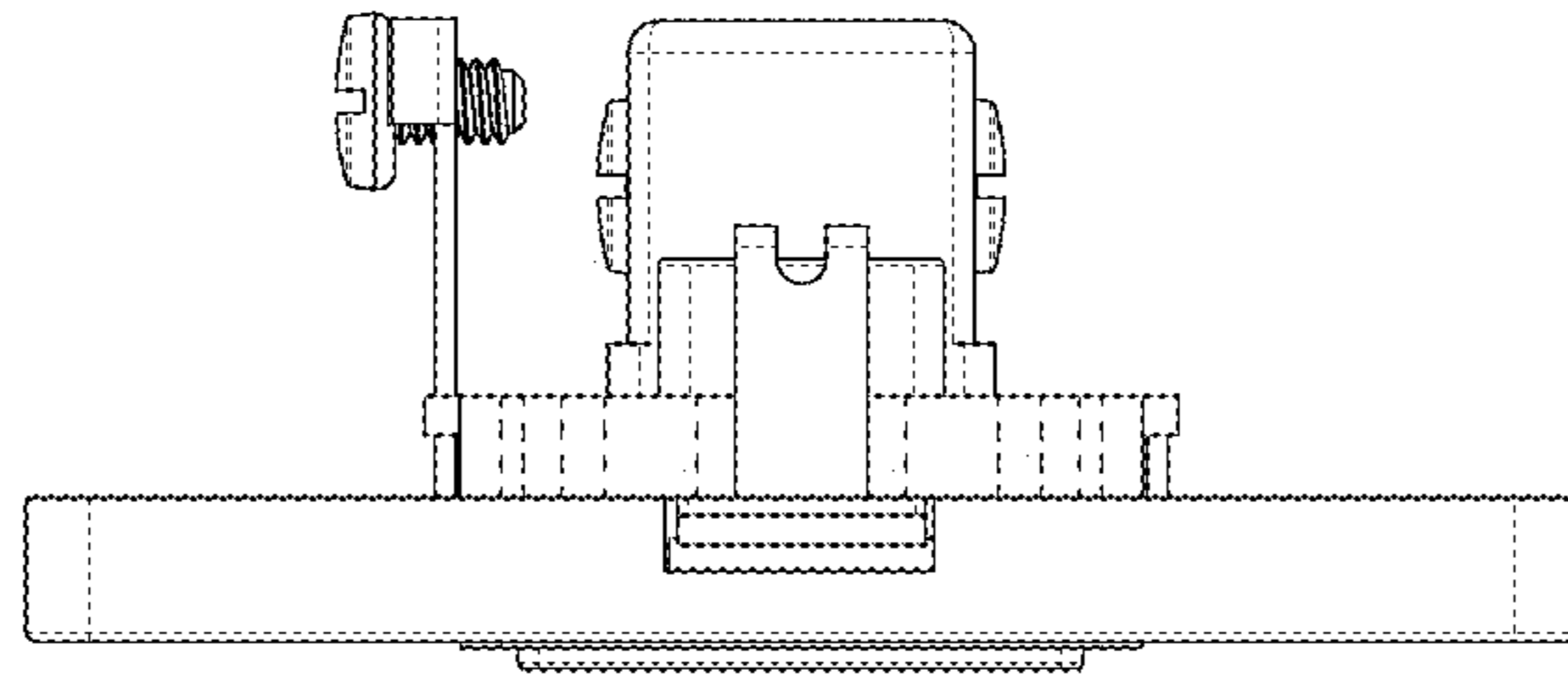


Fig. 28

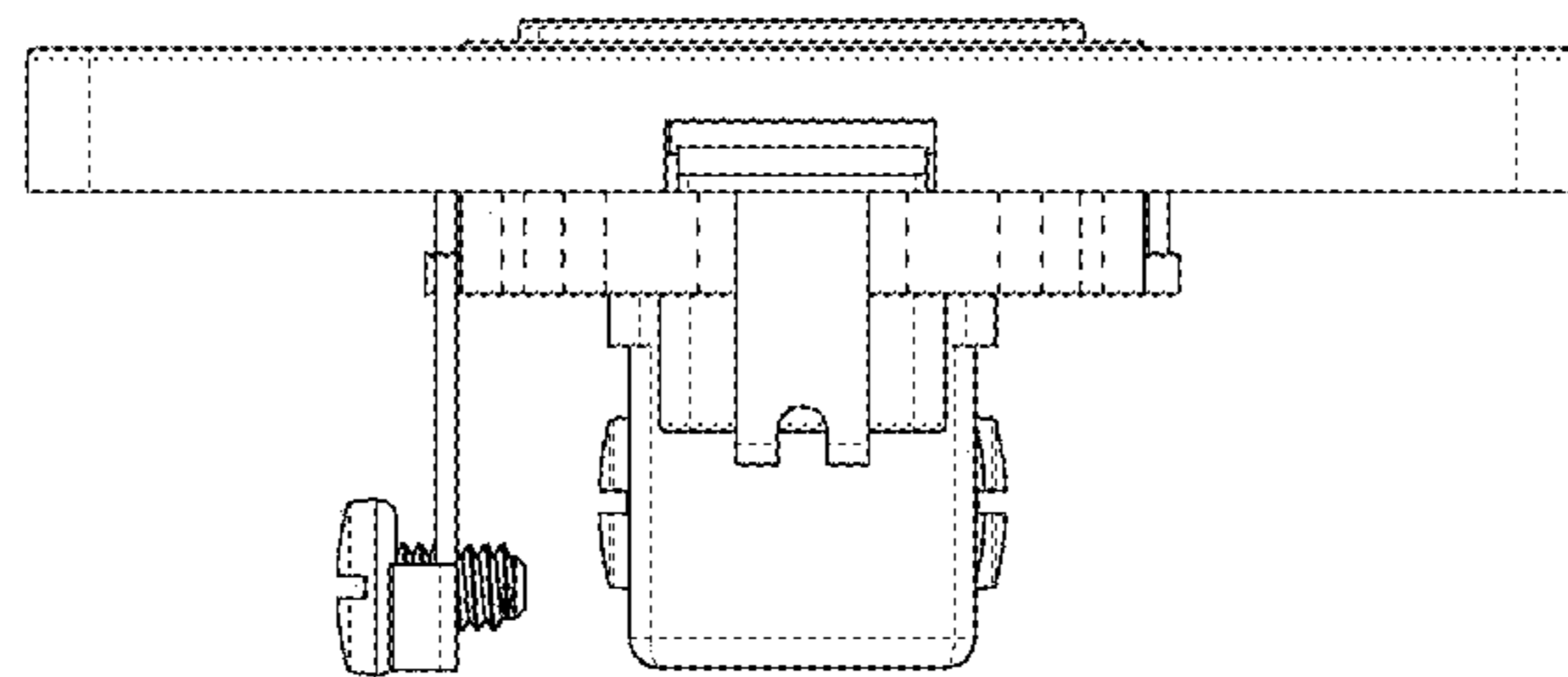


Fig. 29

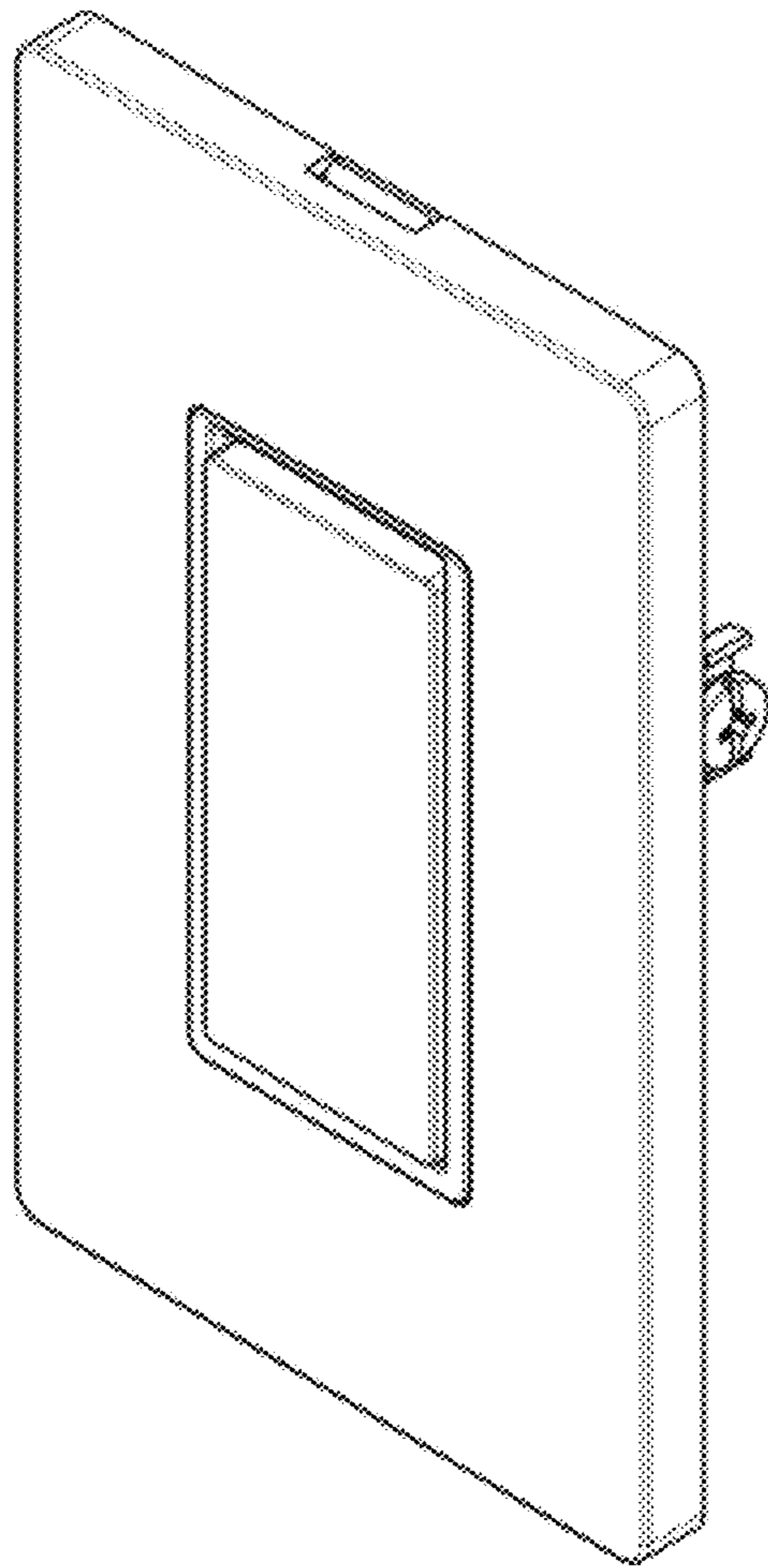


Fig. 30

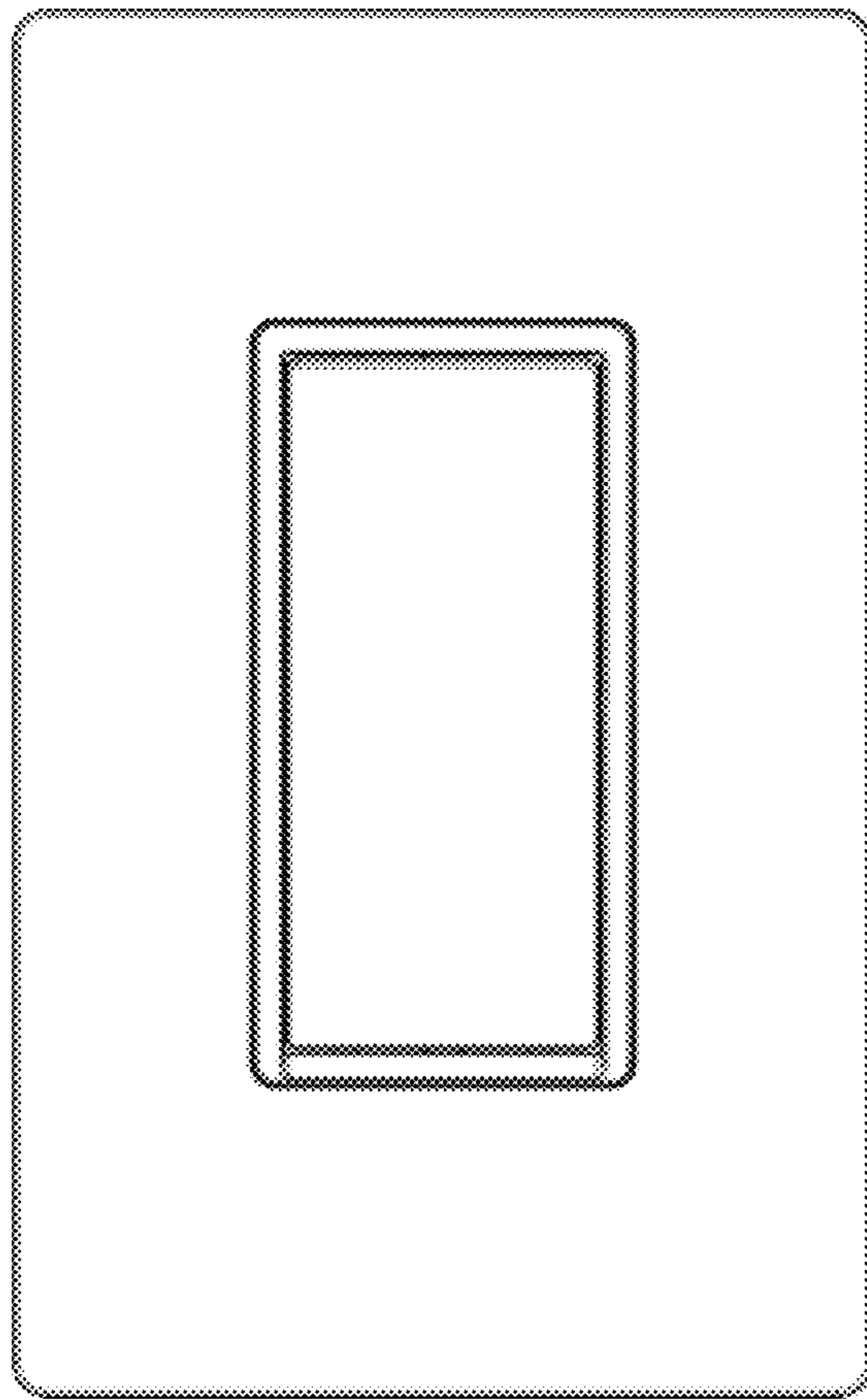


Fig. 31

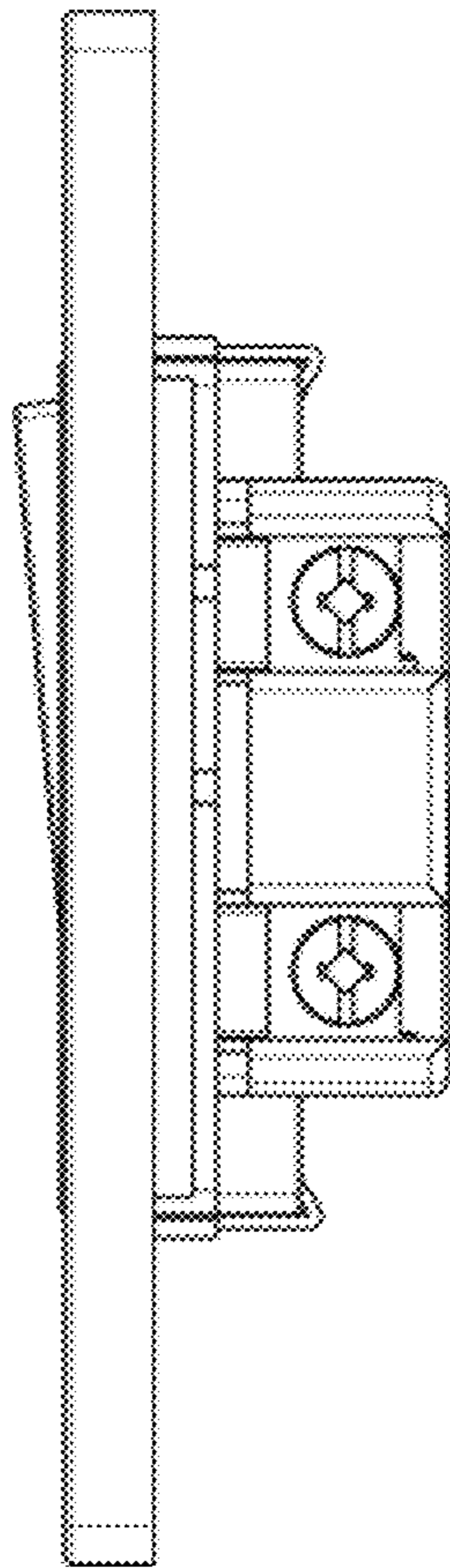


Fig. 32

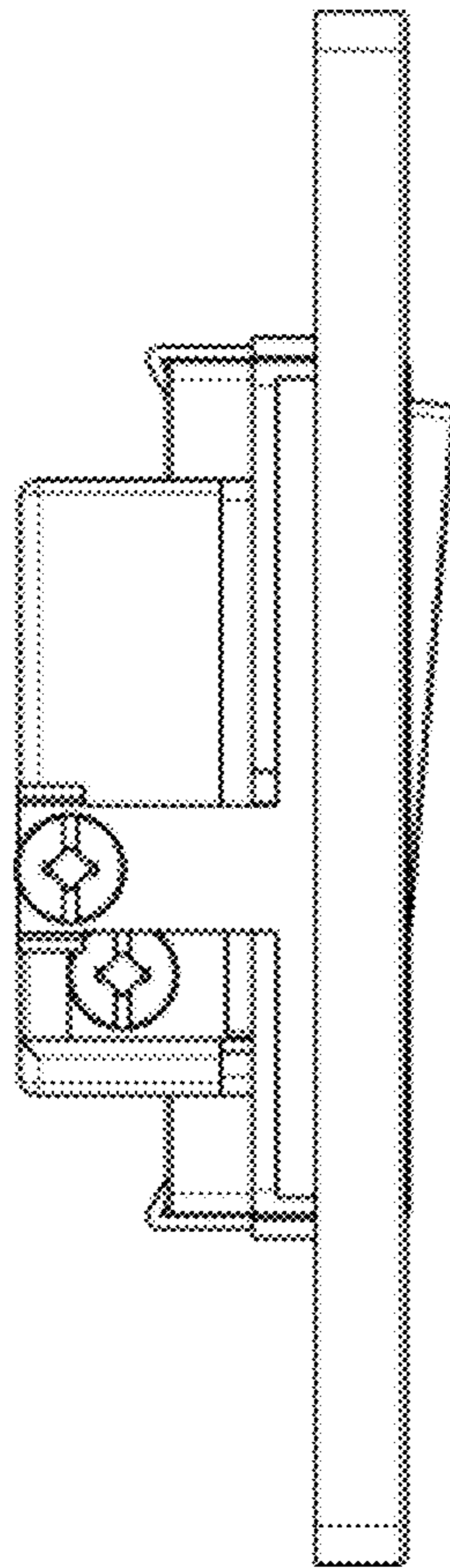


Fig. 33

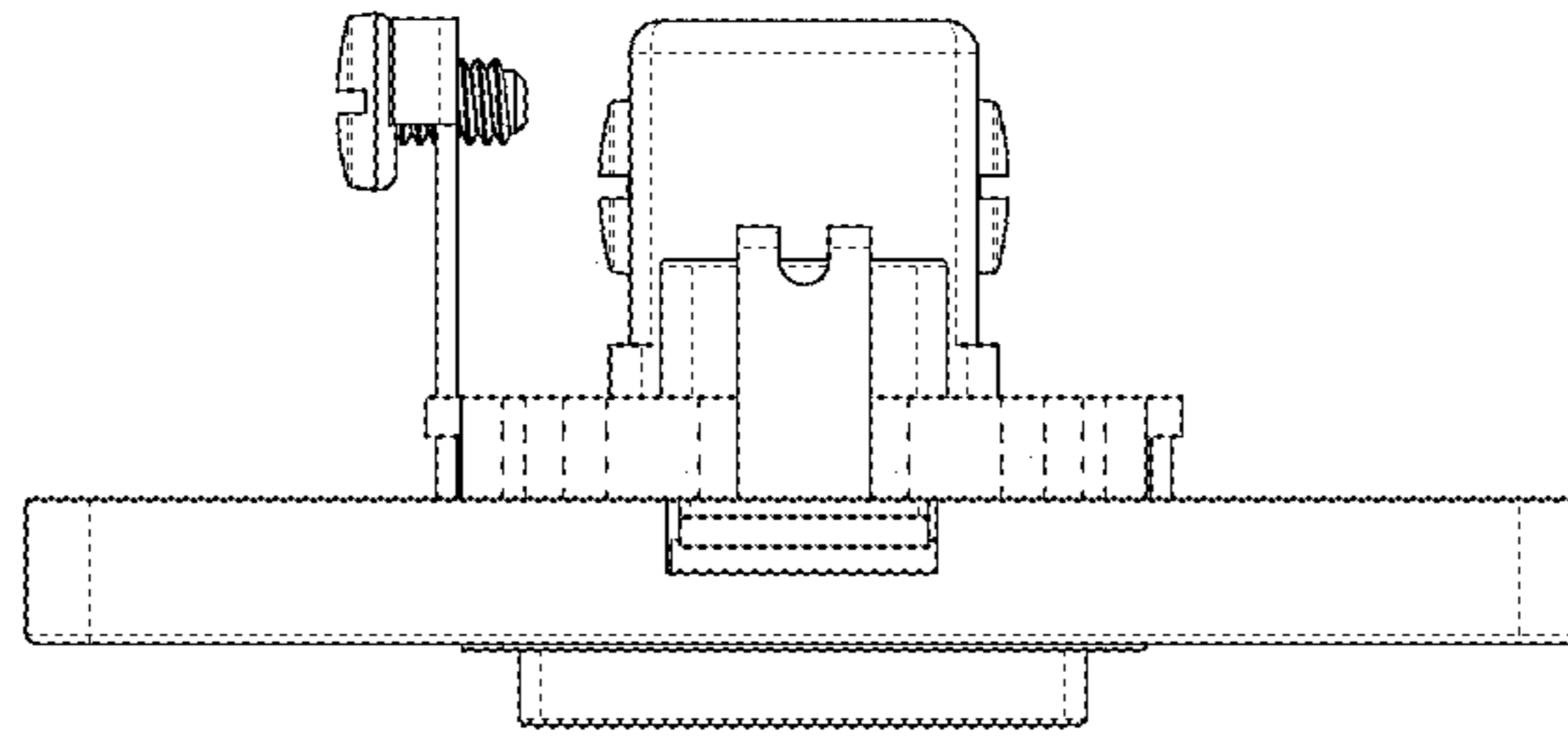


Fig. 34

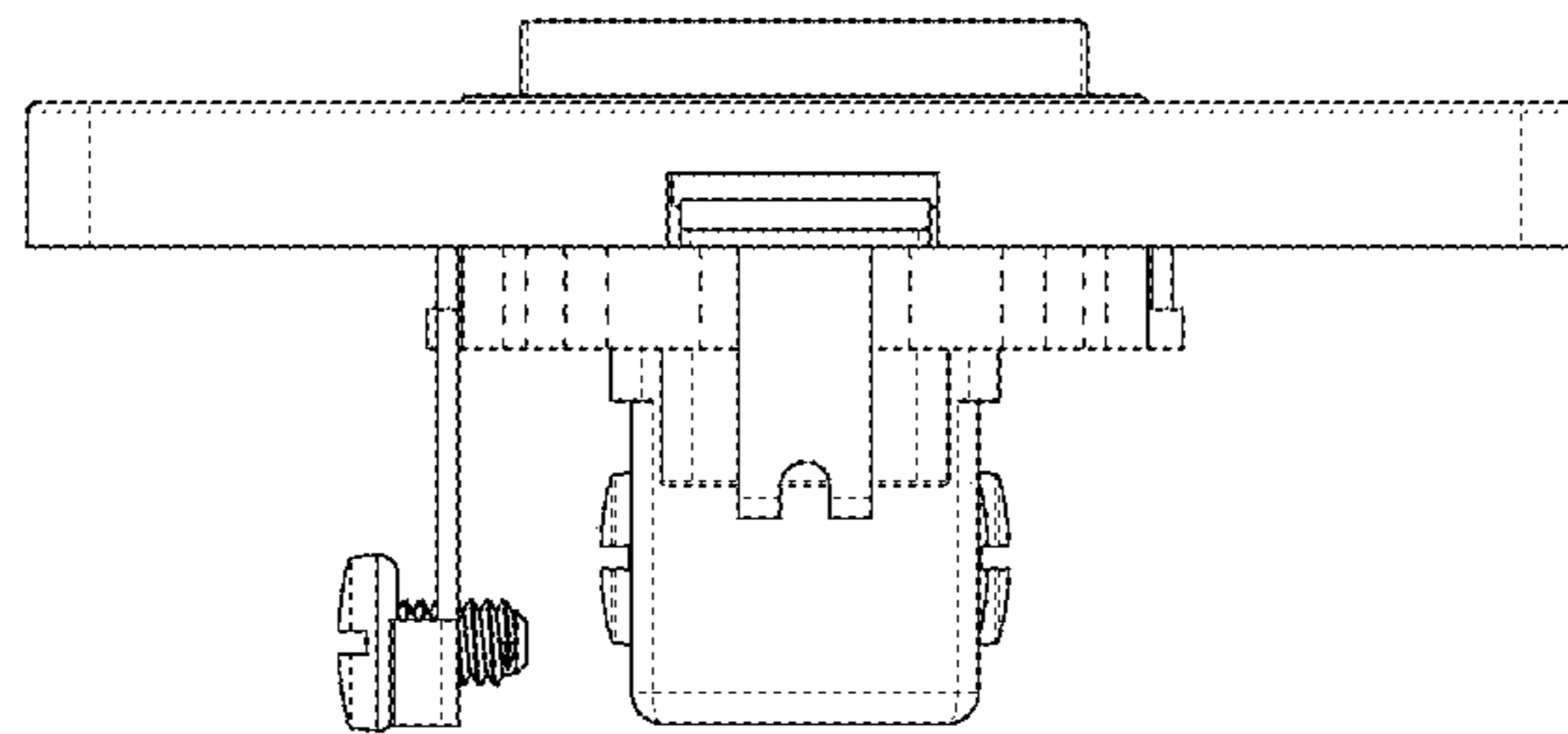


Fig. 35

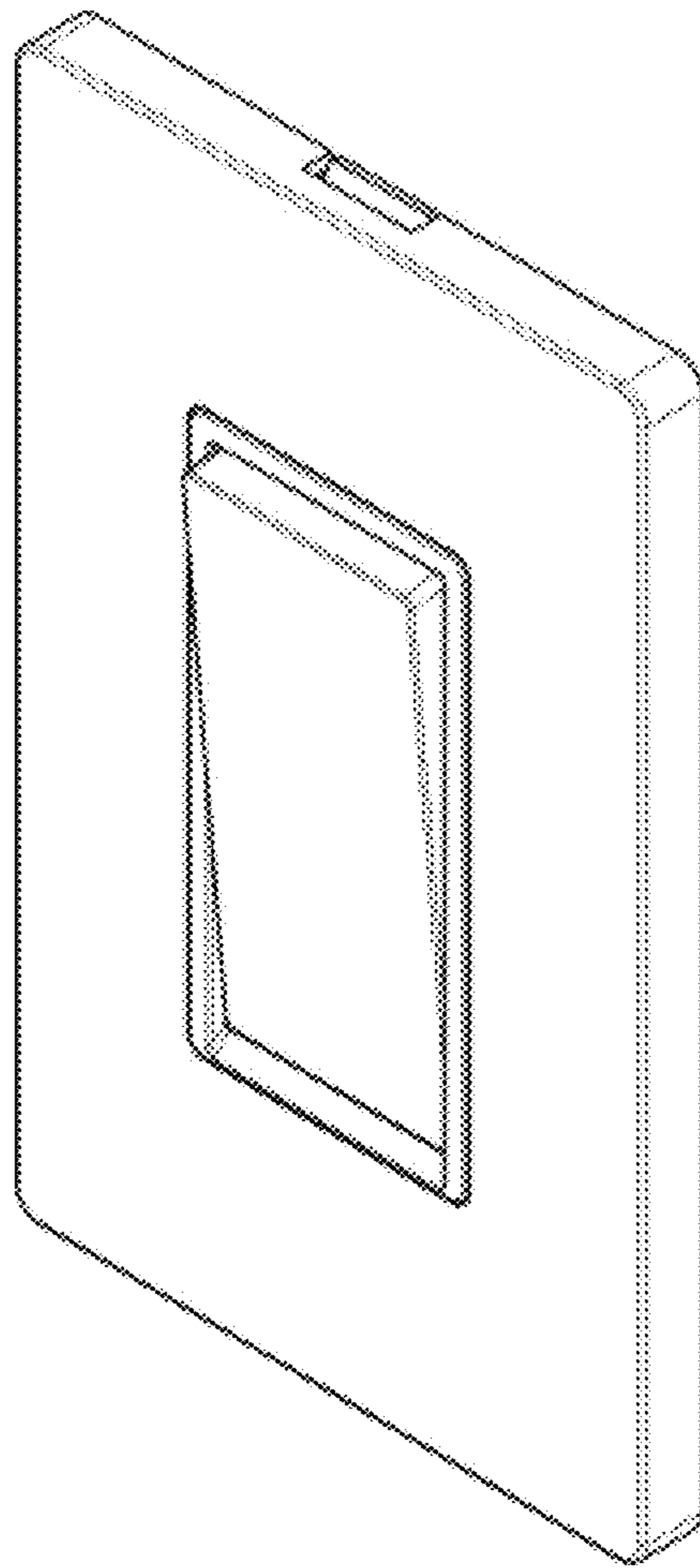


Fig. 36

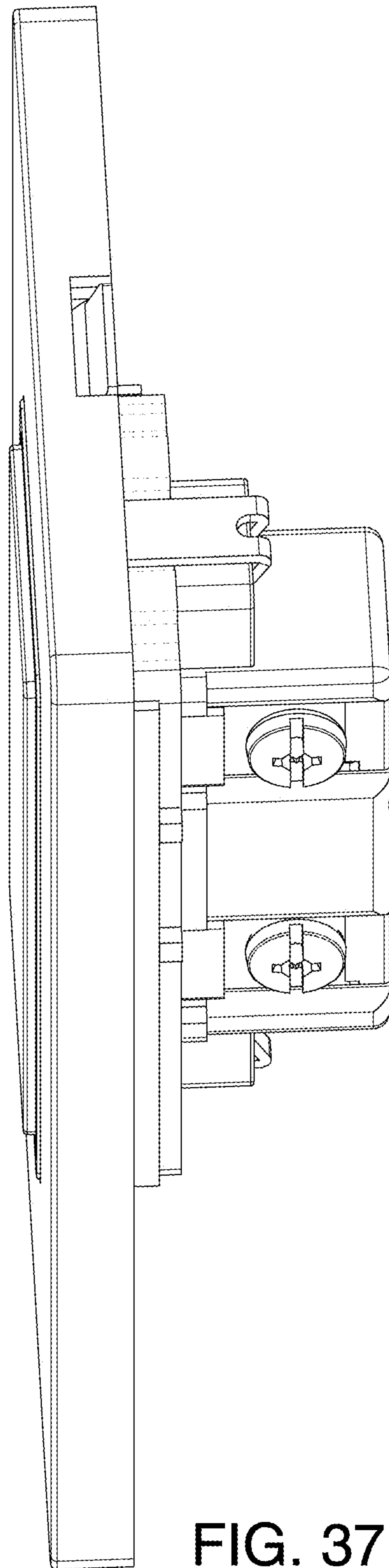


FIG. 37