US00D635165S

(12) United States Design Patent

Yajima et al.

(10) Patent No.: US D635,165 S
(45) Date of Patent: ** Mar. 29, 2011

(54) **LINEAR ELECTROMAGNETIC ACTUATOR**

(75) Inventors: **Hisashi Yajima**, Tsukubamirai (JP); **Tatsuya Hosaka**, Tsukubamirai (JP); **Takehiko Kanazawa**, Tsukubamirai (JP); **Nobuhiro Fujiwara**, Tsukubamirai (JP)

(73) Assignee: **SMC Corporation**, Chiyoda-ku, Tokyo (JP)

(**) Term: **14 Years**

(21) Appl. No.: **29/375,468**

(22) Filed: **Sep. 22, 2010**

(30) **Foreign Application Priority Data**

Jun. 21, 2010 (JP) 2010-015176

(51) **LOC (9) Cl.** **15-09**
(52) **U.S. Cl.** **D15/143**
(58) **Field of Classification Search** ..... D13/158, D13/162, 184; D15/5, 7, 9, 143, 148, 149, D15/199; 74/89.15, 490.09; 91/275; 92/5 R, 92/88, 146, 161, 165 R; 310/10, 12, 15, 310/20, 80, 300; 335/229; 384/43, 49
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,435,649	A	*	7/1995	Kuwahara	384/13
D373,363	S	*	9/1996	Miyachi et al.	D15/143
D374,240	S	*	10/1996	Nagasawa	D15/143
D375,965	S	*	11/1996	Shiino et al.	D15/143
D440,990	S	*	4/2001	Asai	D15/143
D444,795	S	*	7/2001	Wakasugi et al.	D15/7
6,400,047	B1	*	6/2002	Hartramph et al.	310/12.33
D530,730	S	*	10/2006	Sato et al.	D15/143
D542,816	S	*	5/2007	Yajima et al.	D15/143
D554,164	S	*	10/2007	Naruse et al.	D15/143
D578,147	S	*	10/2008	Fukano et al.	D15/143
7,683,749	B2	*	3/2010	Yajima et al.	335/222
2006/0114090	A1	*	6/2006	Yajima et al.	335/229
2006/0279140	A1	*	12/2006	Jenny	310/12
2010/0134225	A1	*	6/2010	Yajima et al.	335/229

* cited by examiner

Primary Examiner — Patricia Palasik
(74) *Attorney, Agent, or Firm* — Yokoi & Co., U.S.A., Inc.; Toshiyuki Yokoi

(57) **CLAIM**

The ornamental design for a linear electromagnetic actuator, as shown and described.

DESCRIPTION

FIG. **1** shows a front view of a linear electromagnetic actuator showing my new design;
FIG. **2** shows a rear view thereof;
FIG. **3** shows a right side view thereof;
FIG. **4** shows a left side view thereof;
FIG. **5** shows a top view thereof;
FIG. **6** shows a bottom view thereof; and,
FIG. **7** shows a bottom, front and left side perspective view thereof.
The broken lines in the drawings depict unclaimed environmental subject matter.

1 Claim, 4 Drawing Sheets

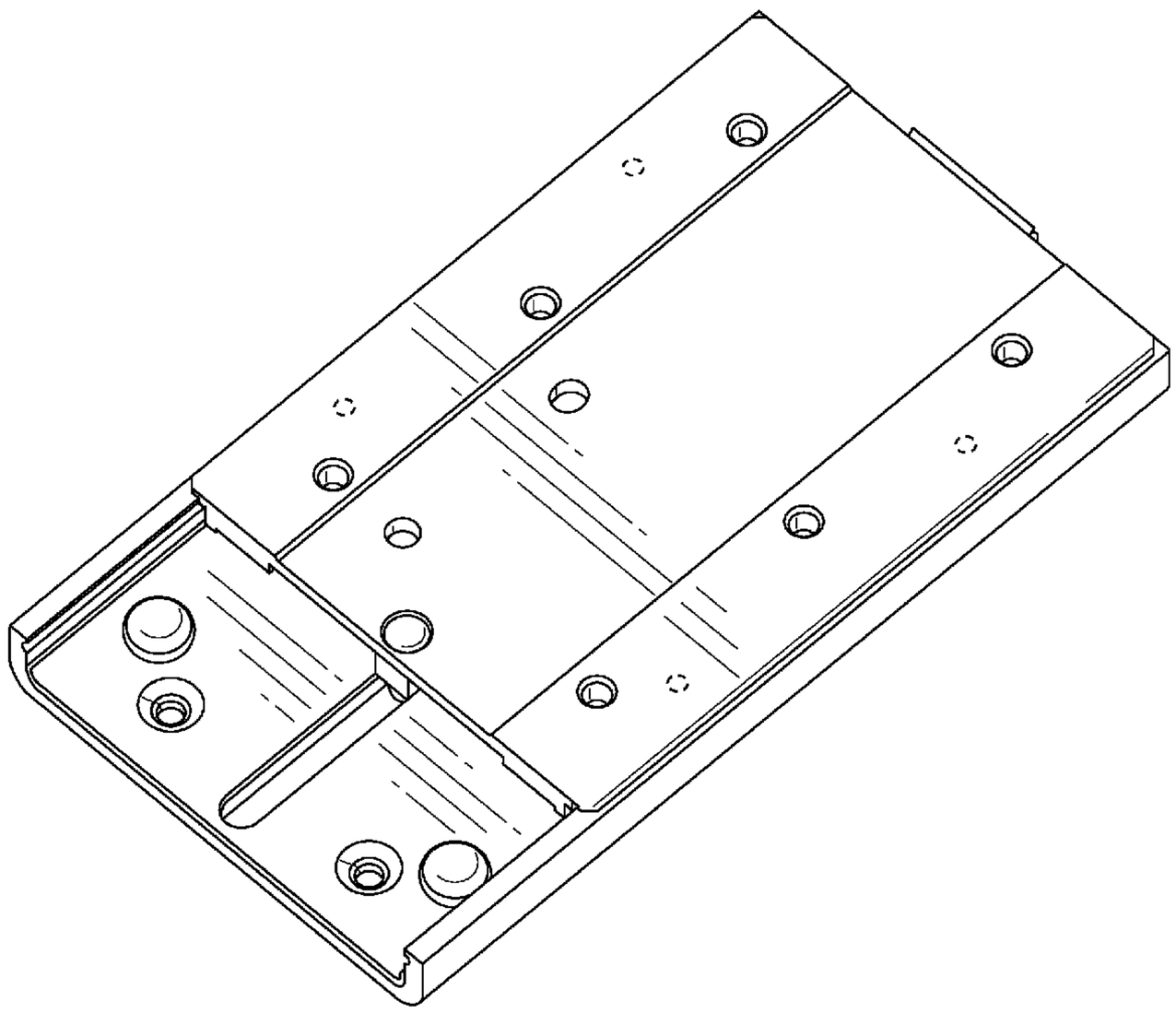

FIG. 1

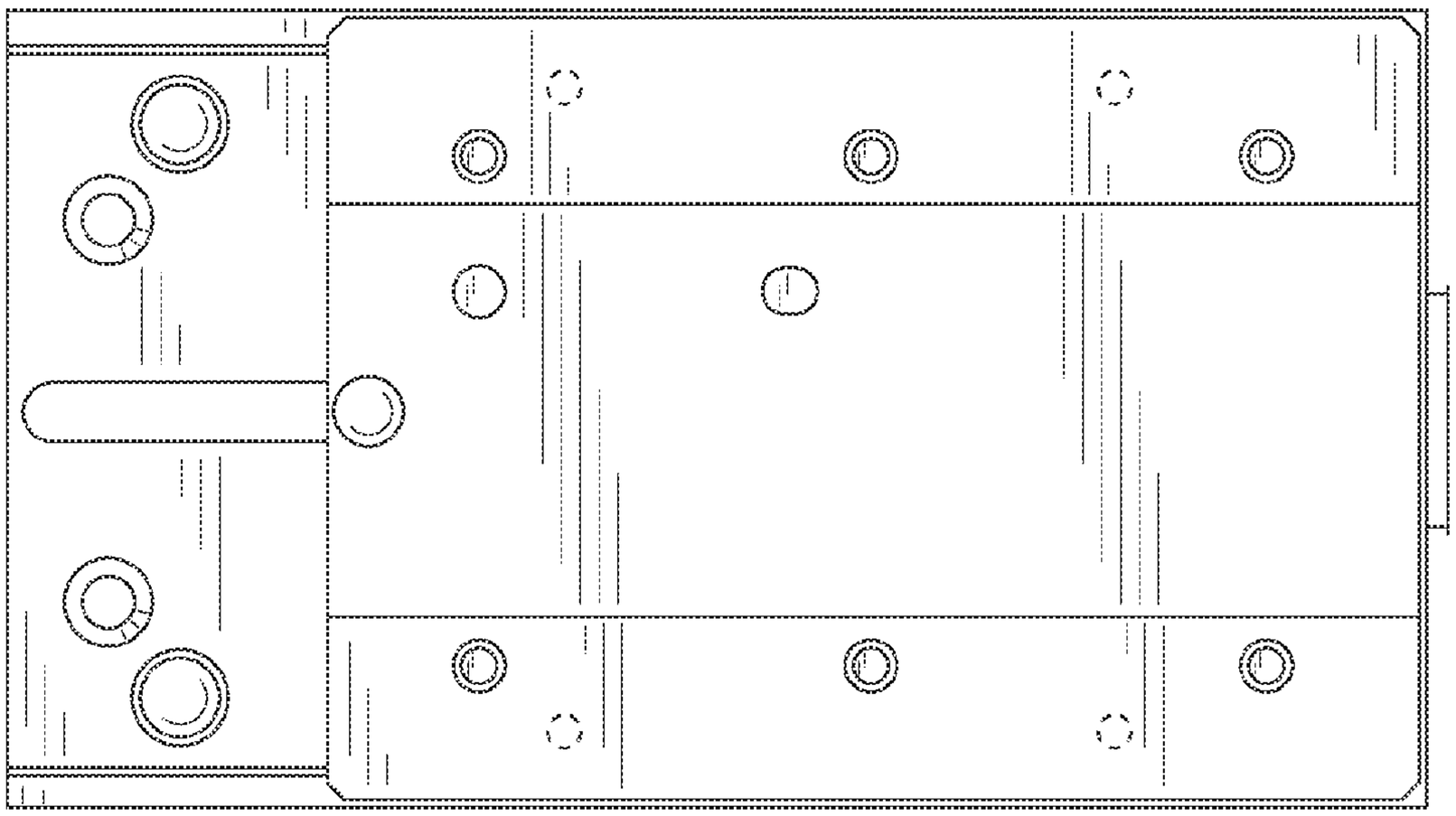

FIG. 2

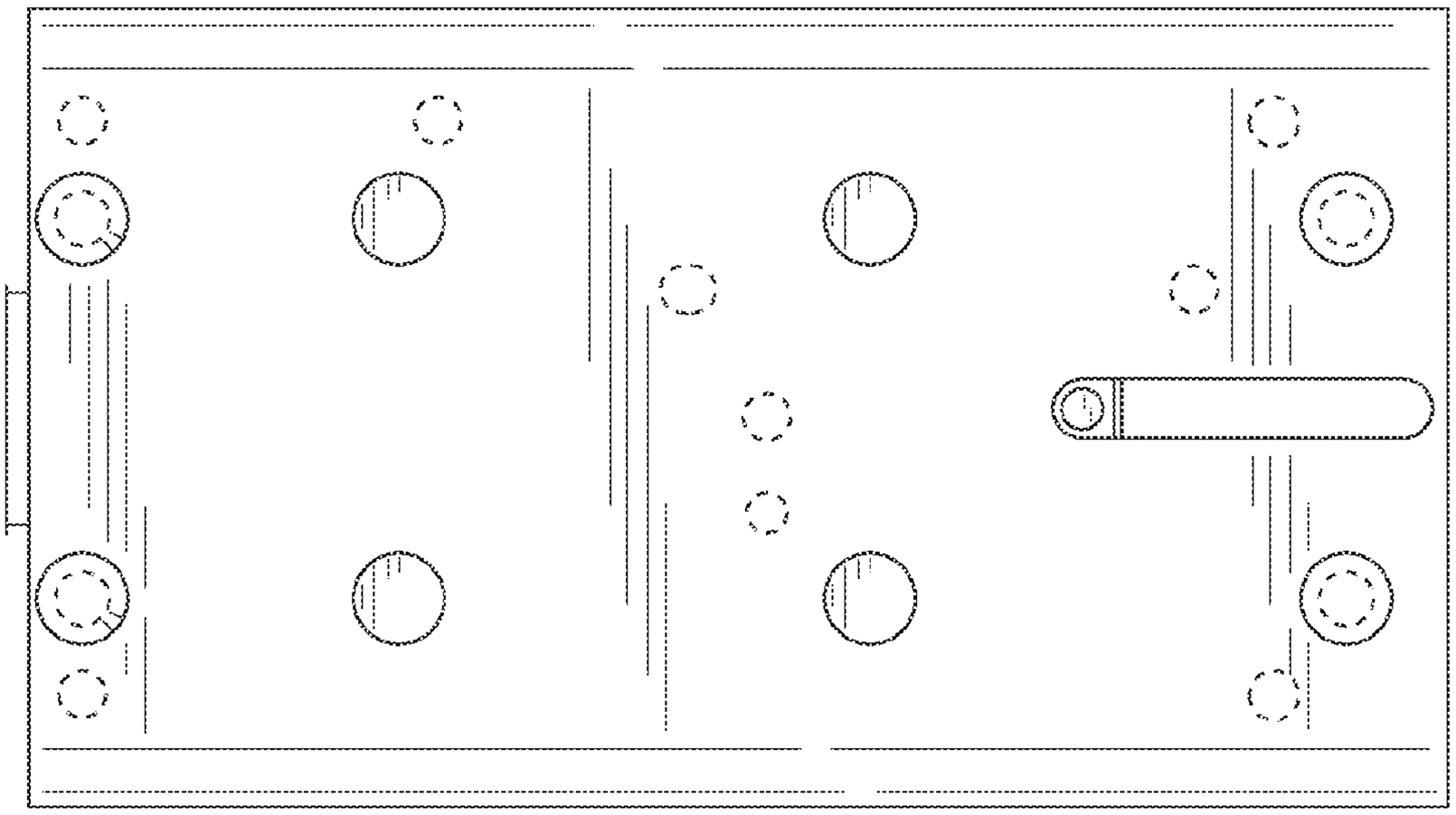

FIG. 3

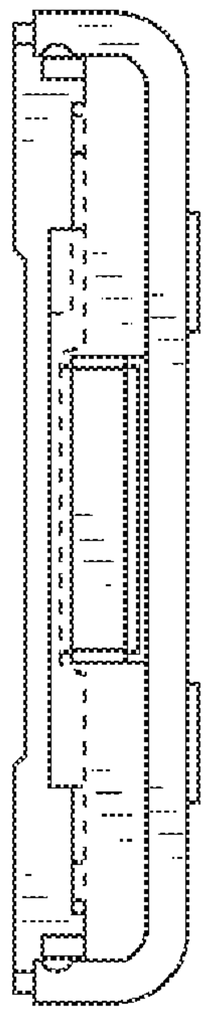

FIG. 4

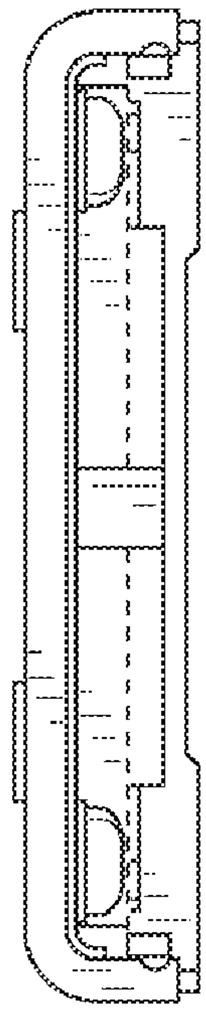

FIG. 5

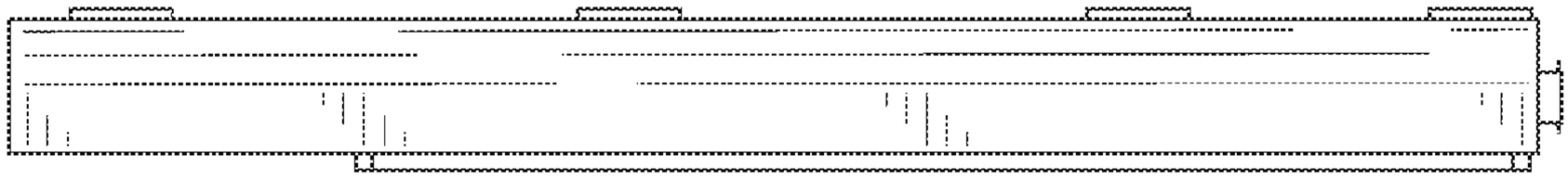

FIG. 6

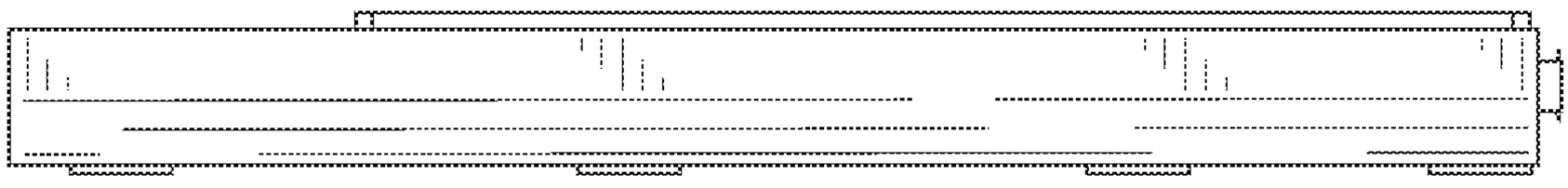

FIG. 7