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(12) **United States Design Patent**
Kim

(10) **Patent No.:** **US D624,716 S**

(45) **Date of Patent:** **** Sep. 28, 2010**

(54) **END EFFECTOR PAD FOR VACUUM ROBOT**

2010/0028109 A1* 2/2010 Kent 414/225.01
2010/0034625 A1* 2/2010 Kim 414/226.01

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(73) Assignee: **Applied Materials, Inc.**, Santa Clara, CA (US)

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

(21) Appl. No.: **29/336,555**

(22) Filed: **May 5, 2009**

Related U.S. Application Data

(63) Continuation of application No. 12/351,409, filed on Jan. 9, 2009.

(51) **LOC (9) Cl.** **15-05**

(52) **U.S. Cl.** **D32/31**

(58) **Field of Classification Search** 414/225.01,
414/226.01, 30, 40; 901/33, 0.1, 30, 40;
248/683, 206.5; D32/21, 23, 31; 15/319;
701/2, 23; 700/245; D34/28, 35

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D246,499 S *	11/1977	Poulsen et al.	.....	D34/28
D285,618 S *	9/1986	Borgman	.....	D32/25
D446,623 S *	8/2001	Smith	.....	D34/35
D485,197 S *	1/2004	Rodriguez	.....	D10/80
D489,966 S *	5/2004	Ho	.....	D8/382
7,155,307 B2 *	12/2006	Seemann	.....	700/245
D595,565 S *	7/2009	Robertson et al.	.....	D8/354
D608,973 S *	1/2010	Kanda et al.	.....	D34/35

OTHER PUBLICATIONS

Vacuum Cups and Suction Cups: Small Oval Vacuum Suction Cups, Anver Corporation, Spec sheet, www.anver.com.

Vacuum Cups and Suction Cups: Push-in Mount Style Cups for the Packaging Industry, Anver Corporation, Spec sheet, www.anver.com.

Vacuum Cups and Suction Cups: Flange Mount Series Cups for the Packaging Industry, Anver Corporation Spec sheet, www.anver.com.

Vacuum Cups and Suction Cups: Push-In Type Vacuum Cups for the Packaging Industry, Anver Corporation Spec sheet, www.anver.com.

* cited by examiner

Primary Examiner—Ruth McInroy

(74) *Attorney, Agent, or Firm*—Patterson & Sheridan, LLP

(57) **CLAIM**

The ornamental design for an end effector pad for a vacuum robot, as shown and described.

DESCRIPTION

FIG. 1 is an isometric view of an end effector pad for a vacuum robot showing my new design;

FIG. 2 is an exploded view thereof;

FIG. 3 is a left side view thereof;

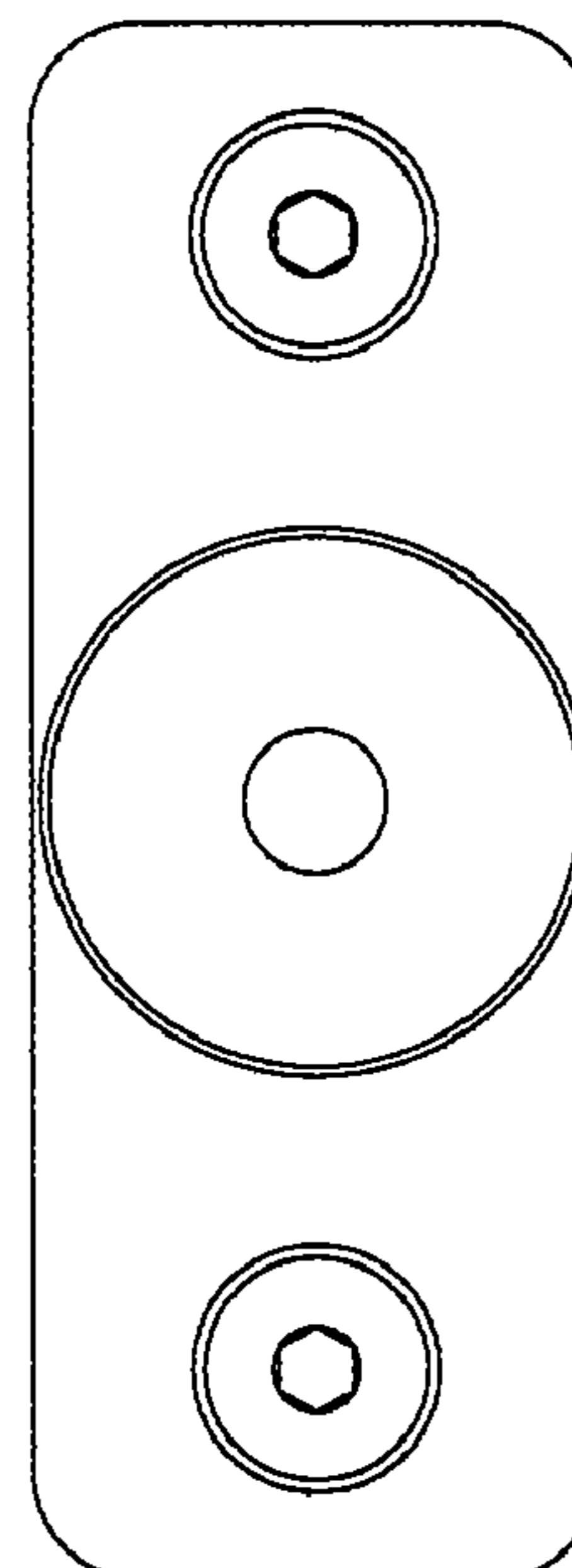
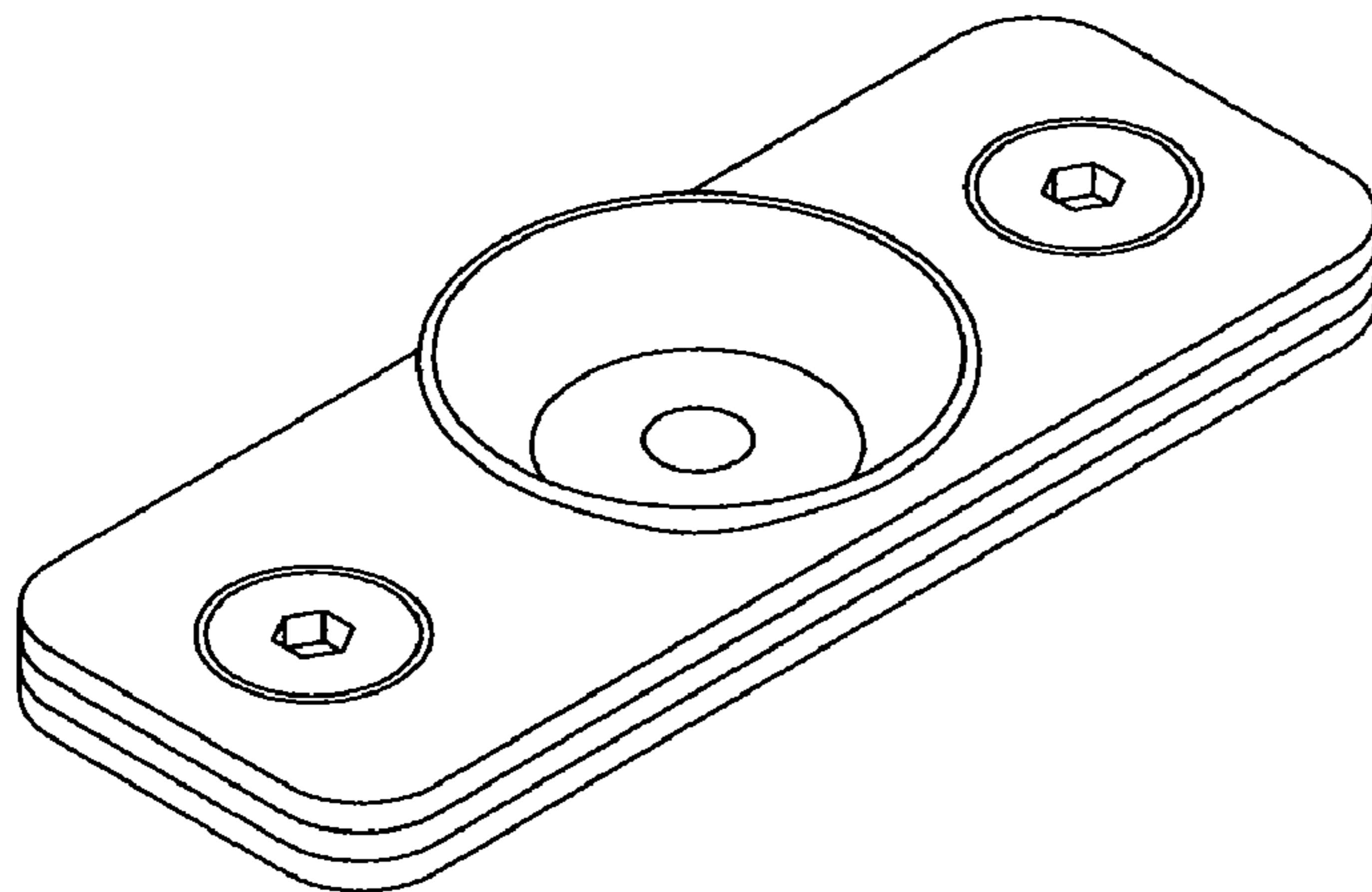
FIG. 4 is a front view thereof;

FIG. 5 is a right side view thereof;

FIG. 6 is a rear view thereof; and,

FIG. 7 is a bottom view thereof, the top view being a mirror image.

1 Claim, 3 Drawing Sheets



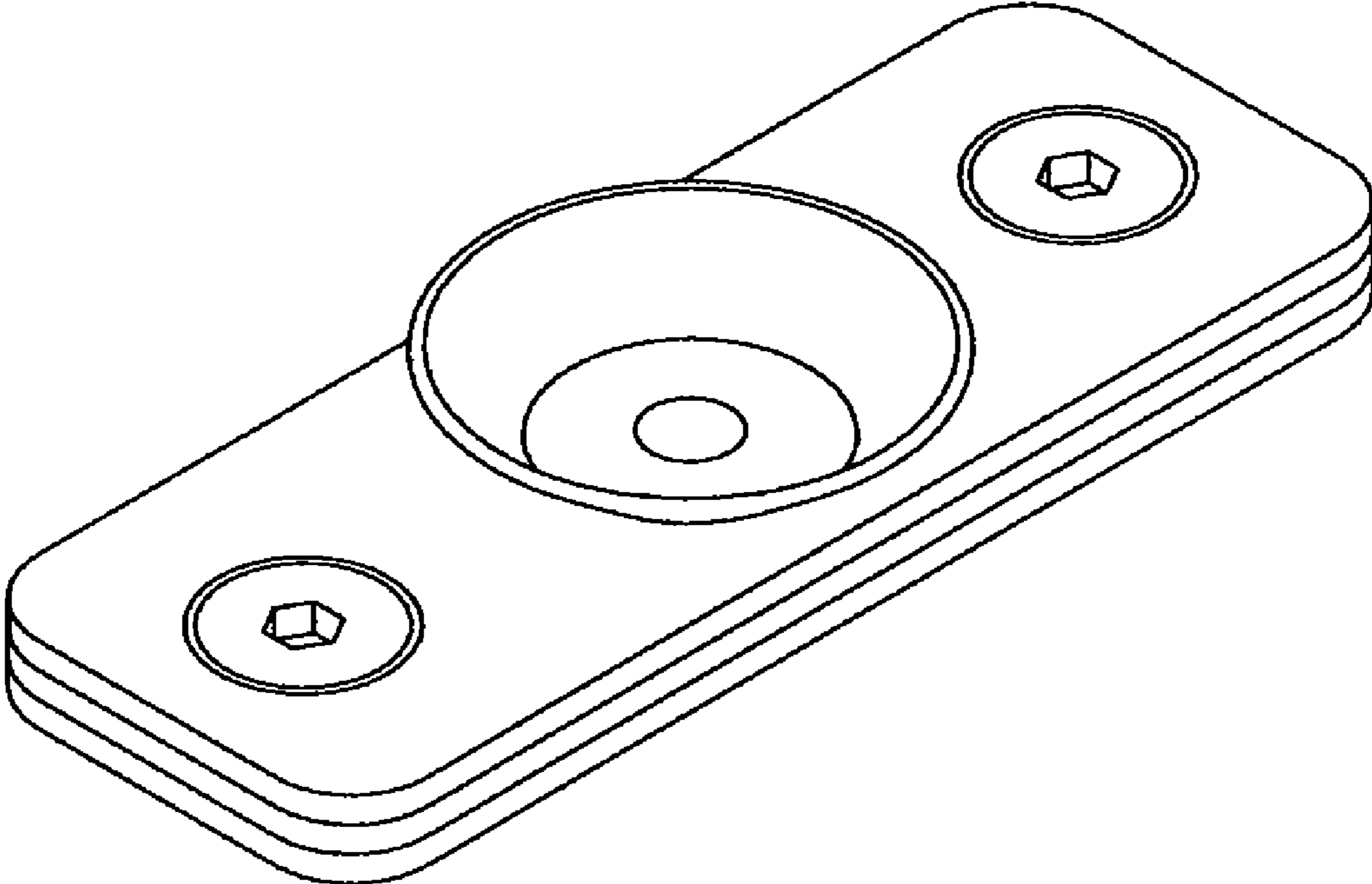


FIG. 1

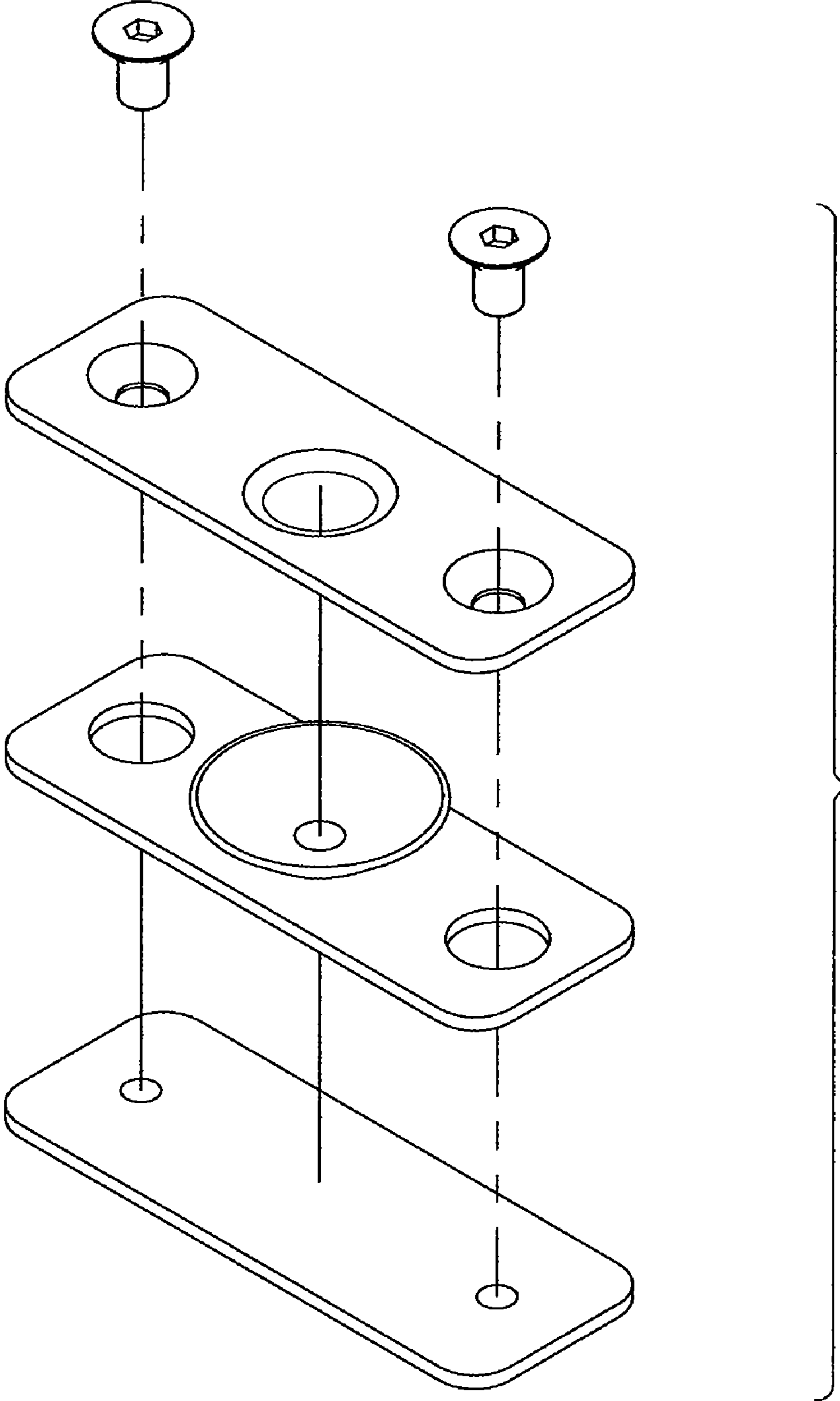


FIG. 2

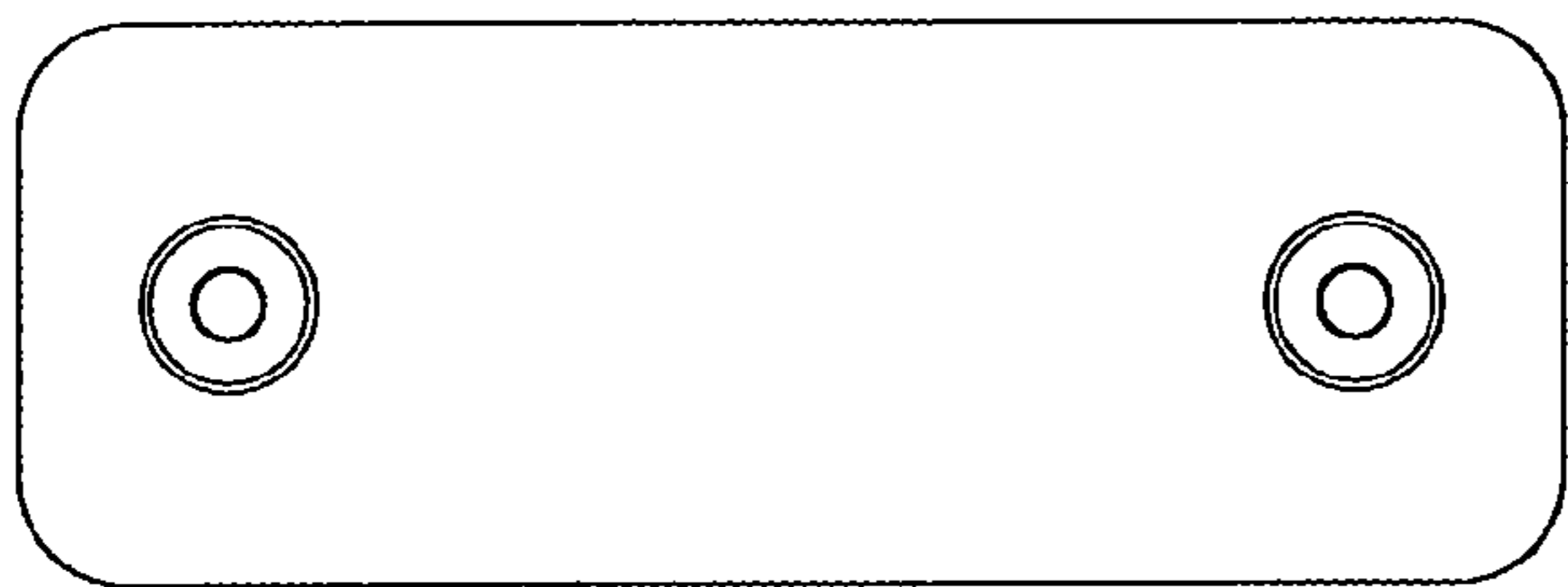


FIG. 6

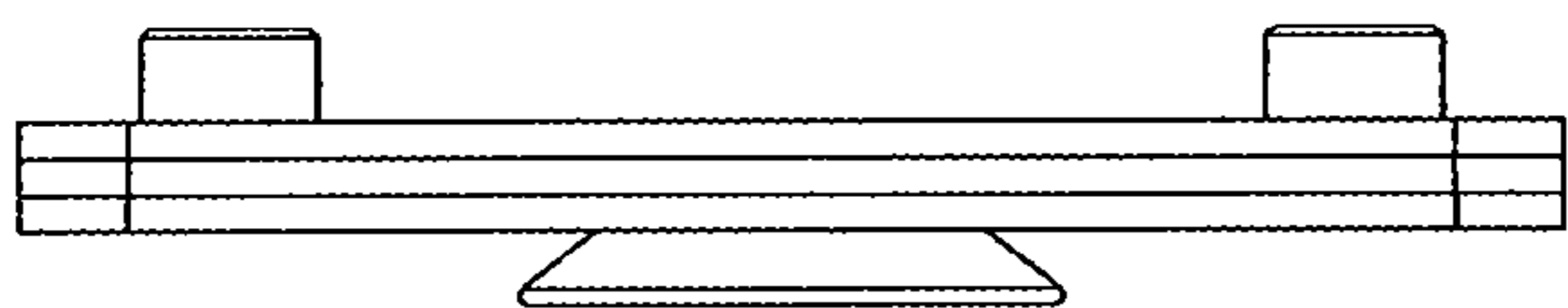


FIG. 5

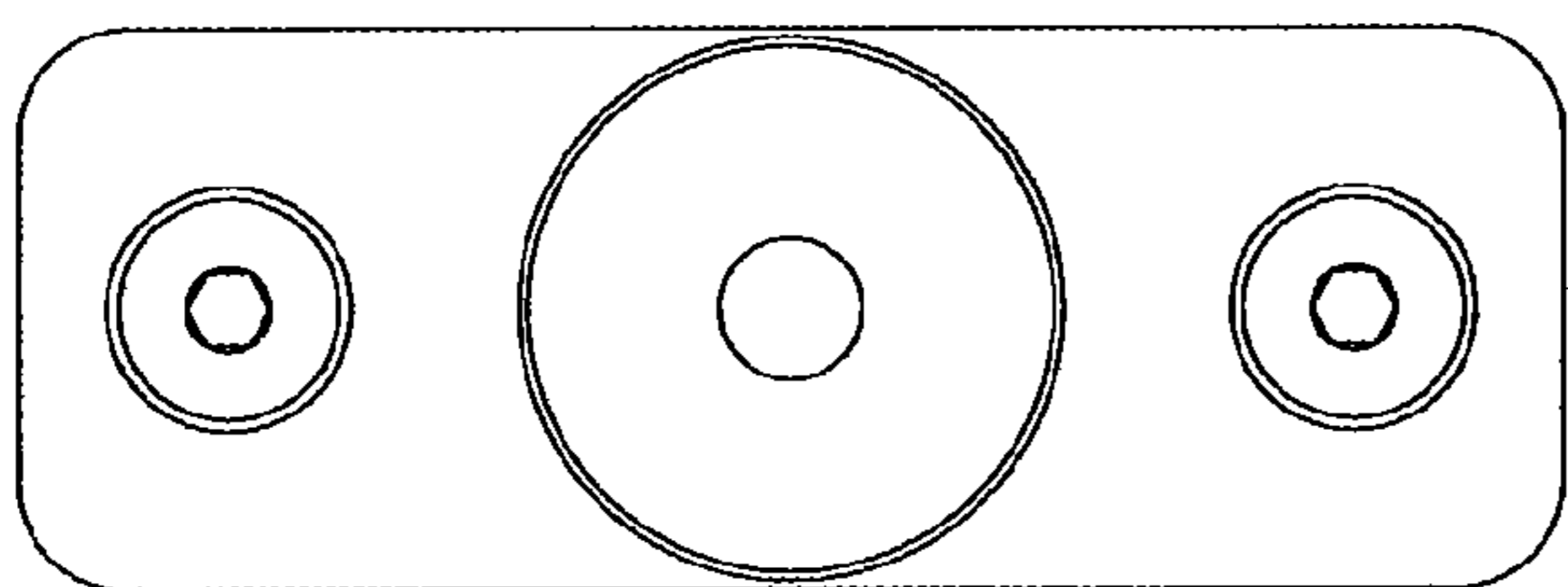


FIG. 4

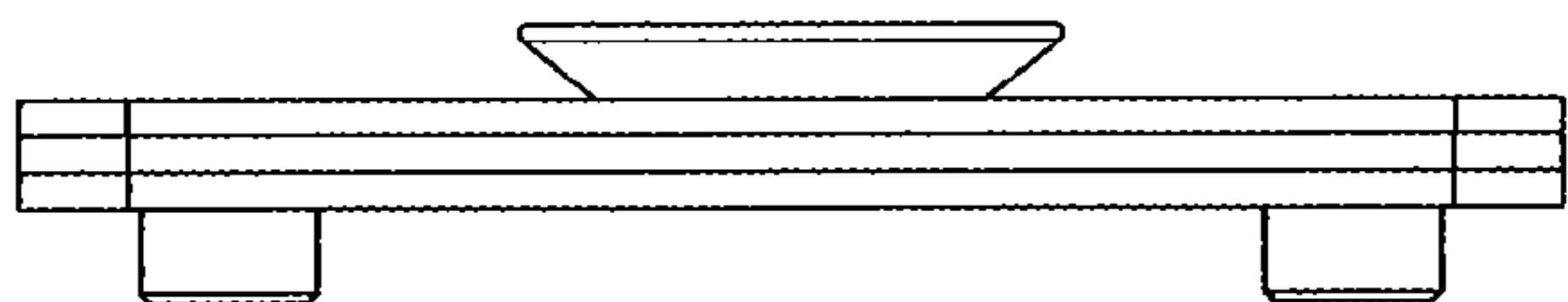


FIG. 3

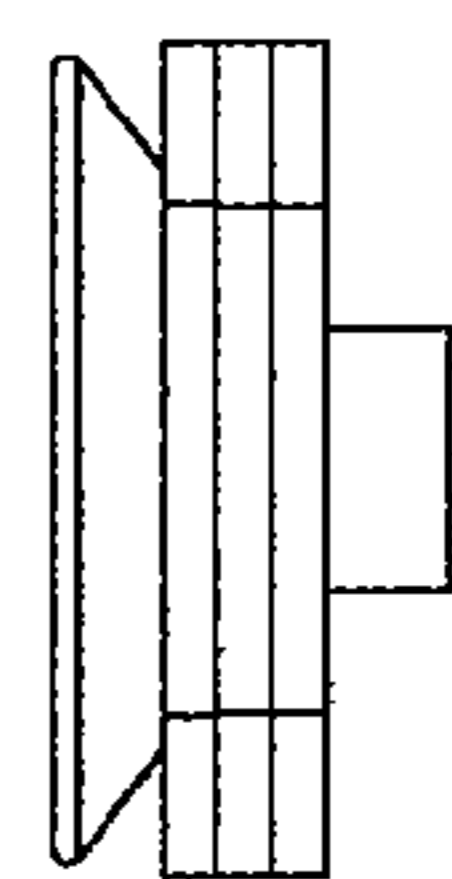


FIG. 7

UNITED STATES PATENT AND TRADEMARK OFFICE
CERTIFICATE OF CORRECTION

PATENT NO. : D624,716 S
APPLICATION NO. : 29/336555
DATED : September 28, 2010
INVENTOR(S) : Kim

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

On the Title Page in the Related U.S. Application Data Item (60):

Please insert --Provisional application No. 61/087,591, filed on Aug. 8, 2008.--.

Signed and Sealed this
Twenty-fifth Day of January, 2011

A handwritten signature in black ink that reads "David J. Kappos". The signature is written in a cursive style with a large initial "D" and "K".

David J. Kappos
Director of the United States Patent and Trademark Office