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(12) **United States Design Patent** (10) **Patent No.:** **US D858,579 S**  
**Chen** (45) **Date of Patent:** **\*\* Sep. 3, 2019**

(54) **AIR FLAP**  
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(72) Inventor: **Wen Chen**, Pompano Beach, FL (US)  
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(52) **U.S. Cl.**  
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CPC ..... F02M 35/0209; F02M 35/10072; F02M  
35/10078; F02M 35/10085; F02M  
35/10354; F02M 35/104; F02D 9/109;  
F02D 9/10; F02D 9/16; F02D 9/1095;  
F02D 9/1035; F02D 11/106; F02B  
27/0273; F02B 27/0289; F02B 29/0431;  
F02B 27/0284; F02B 31/06  
See application file for complete search history.

(56) **References Cited**  
U.S. PATENT DOCUMENTS  
D261,224 S \* 10/1981 Sanderson, Jr. .... D8/323  
D277,759 S \* 2/1985 Coleman ..... D15/138  
5,098,031 A \* 3/1992 Hitomi ..... A01K 89/01084  
242/233  
6,895,926 B1 \* 5/2005 Moreau ..... F02D 9/1095  
123/184.61  
D531,282 S \* 10/2006 Jeong ..... D23/262  
D543,835 S \* 6/2007 Geiger ..... D8/354  
D551,935 S \* 10/2007 Cutler ..... D8/301  
D623,500 S \* 9/2010 Langner ..... D8/349  
8,739,761 B2 \* 6/2014 Chini ..... F02D 9/1095  
123/336  
D724,002 S \* 3/2015 Woo ..... D12/400  
D798,197 S \* 9/2017 Moore ..... D12/124

2006/0169247 A1\* 8/2006 Vichinsky ..... F02B 31/085  
123/336  
2007/0044754 A1\* 3/2007 Peffley ..... F02B 31/06  
123/306  
2008/0127929 A1\* 6/2008 Lancioni ..... F02D 9/1095  
123/184.56  
(Continued)

**OTHER PUBLICATIONS**

Amazon.com\_ For 2006-2011 Mercedes-Benz RK5856 Metal Intake Manifold Air Flap Runner Repair Kit w\_Bearing & Arms, image post date unknown, site visited on Jan. 3, 2019 [Online], URL link is: [https://www.amazon.com/2006-2011-Mercedes-Benz-RK5856-Manifold-Bearing/dp/B07D124KLN/ref=sr\\_1\\_1](https://www.amazon.com/2006-2011-Mercedes-Benz-RK5856-Manifold-Bearing/dp/B07D124KLN/ref=sr_1_1).\*

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*Assistant Examiner* — Ieisha N Price

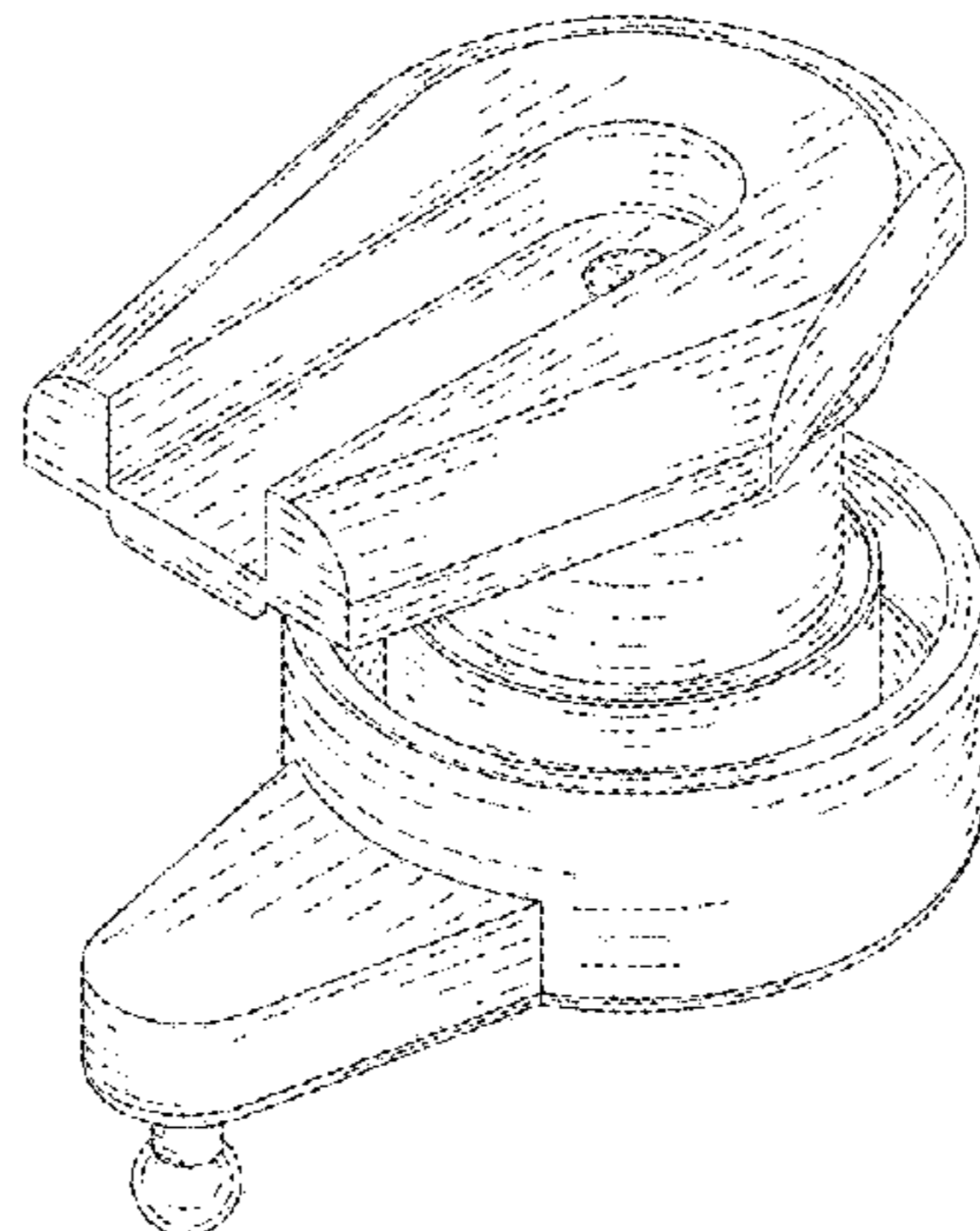
(57) **CLAIM**

The ornamental design for an air flap, as shown and described.

**DESCRIPTION**

FIG. 1 is a top right perspective view of an air flap showing my new design;  
FIG. 2 is a top left perspective view thereof;  
FIG. 3 is a bottom left perspective view thereof;  
FIG. 4 is a front view thereof;  
FIG. 5 is a back view thereof;  
FIG. 6 is a top view thereof;  
FIG. 7 is a bottom view thereof;  
FIG. 8 is a left view thereof;  
FIG. 9 is a right view thereof;  
FIG. 10 is an exploded top right perspective view thereof;  
FIG. 11 is an exploded bottom left perspective view thereof;  
and,  
FIG. 12 is an exploded front view thereof.  
The broken line showing of the screw in FIGS. 1, 2, 6, 10, 11, and 12 is included for the purpose of showing environmental structure and forms no part of the claimed design.

**1 Claim, 12 Drawing Sheets**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

2009/0084335 A1\* 4/2009 Goldin ..... F02B 31/06  
123/184.53  
2009/0194060 A1\* 8/2009 Germain ..... F02D 9/107  
123/195 A  
2010/0186705 A1\* 7/2010 Vichinsky ..... F02B 27/02  
123/184.55  
2011/0162611 A1\* 7/2011 Zhang ..... F02D 9/1095  
123/184.56  
2013/0192415 A1\* 8/2013 Konakawa ..... F02D 9/1065  
74/579 R  
2014/0331956 A1\* 11/2014 Leroux ..... F02M 35/10085  
123/184.21  
2017/0167451 A1\* 6/2017 Tomlinson ..... F02M 35/10262

\* cited by examiner

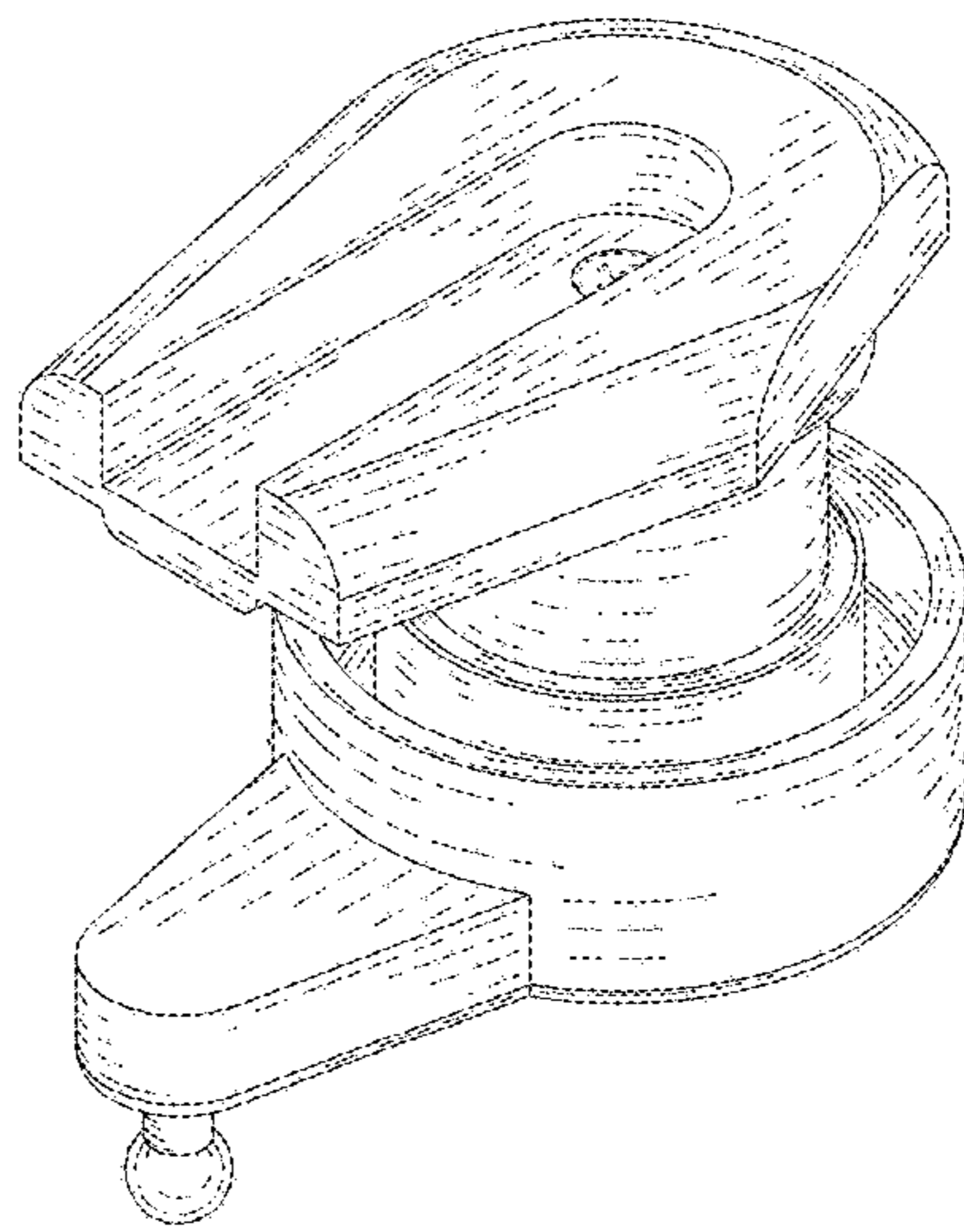


FIG. 1

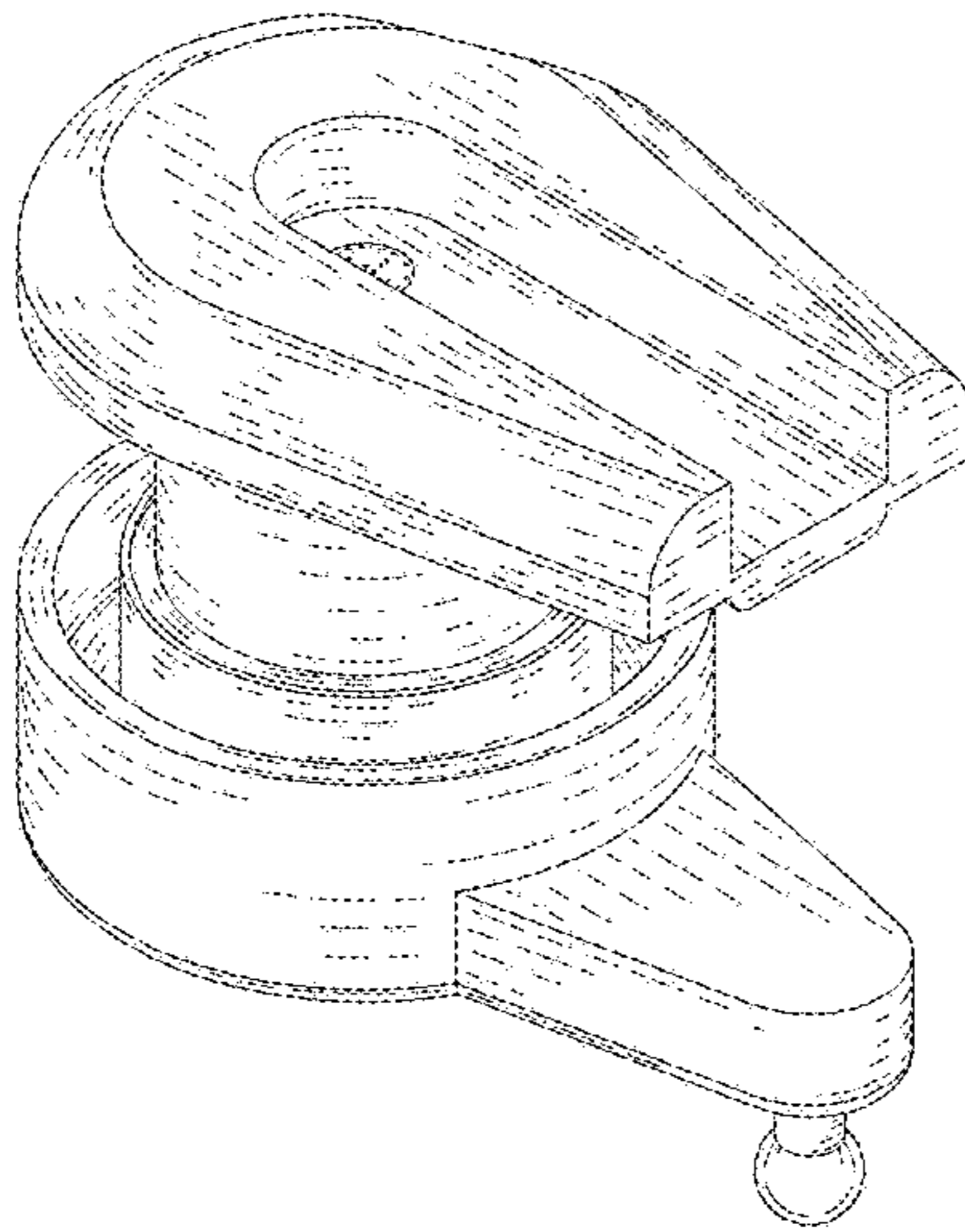


FIG. 2

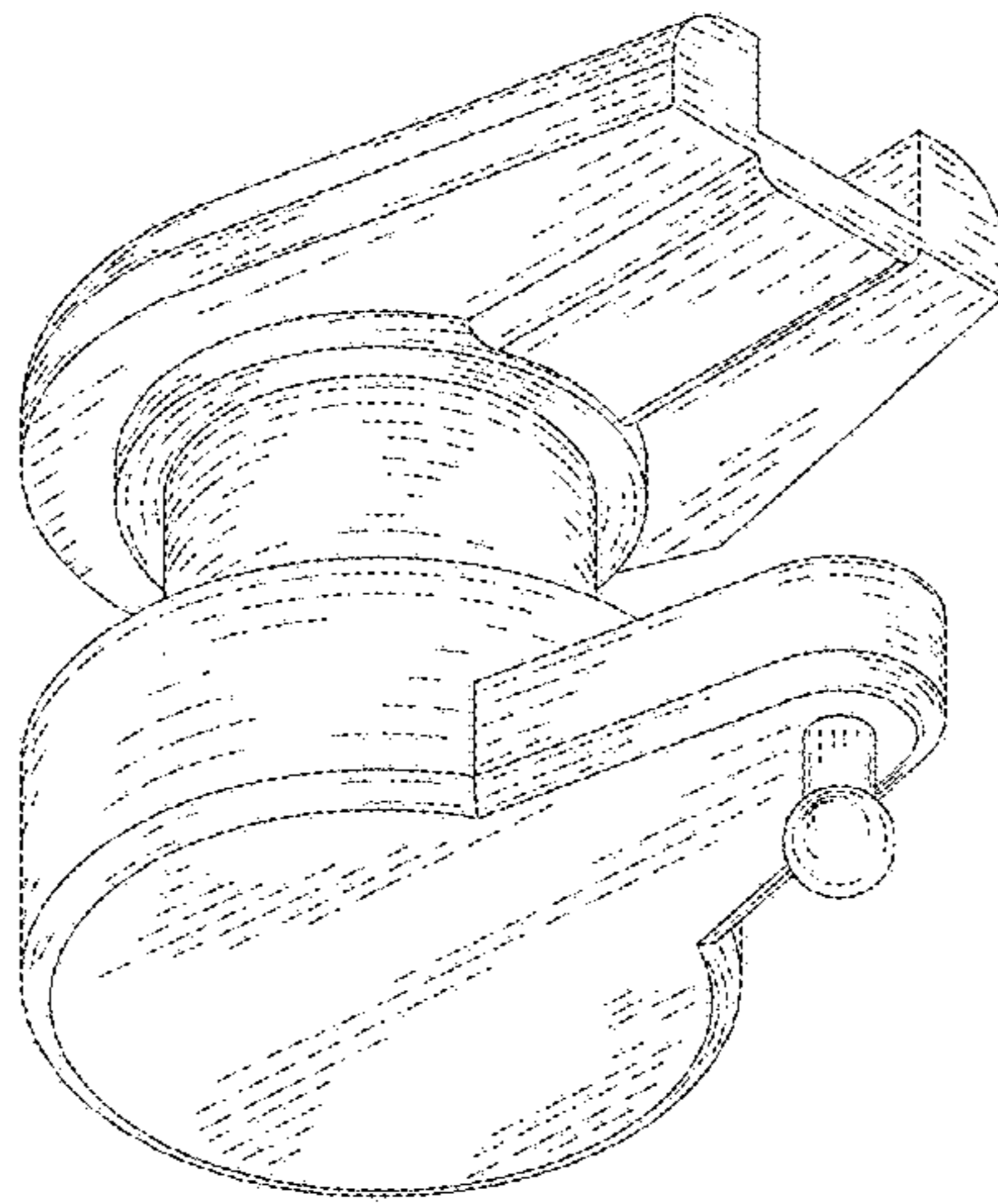


FIG. 3

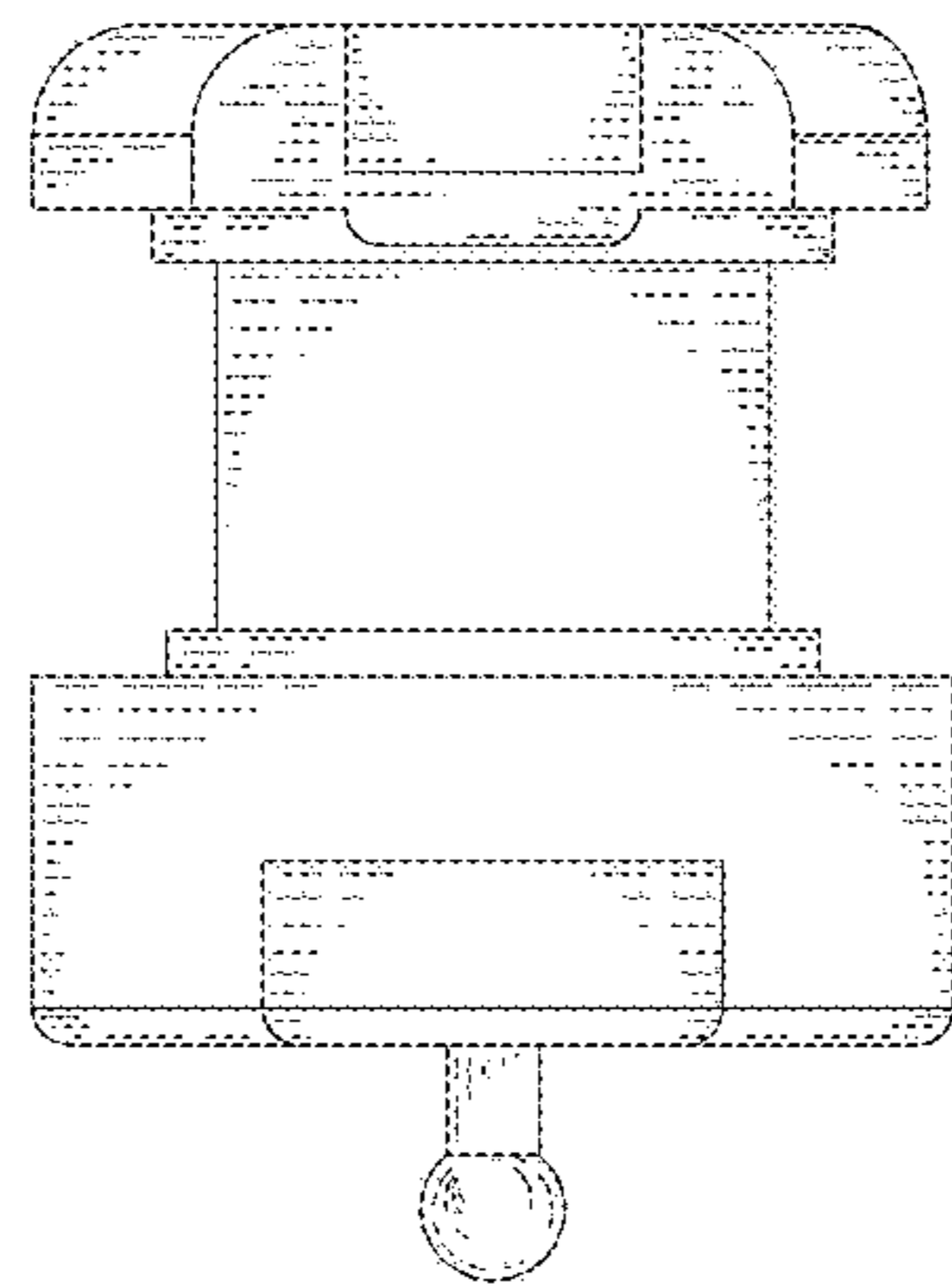


FIG. 4

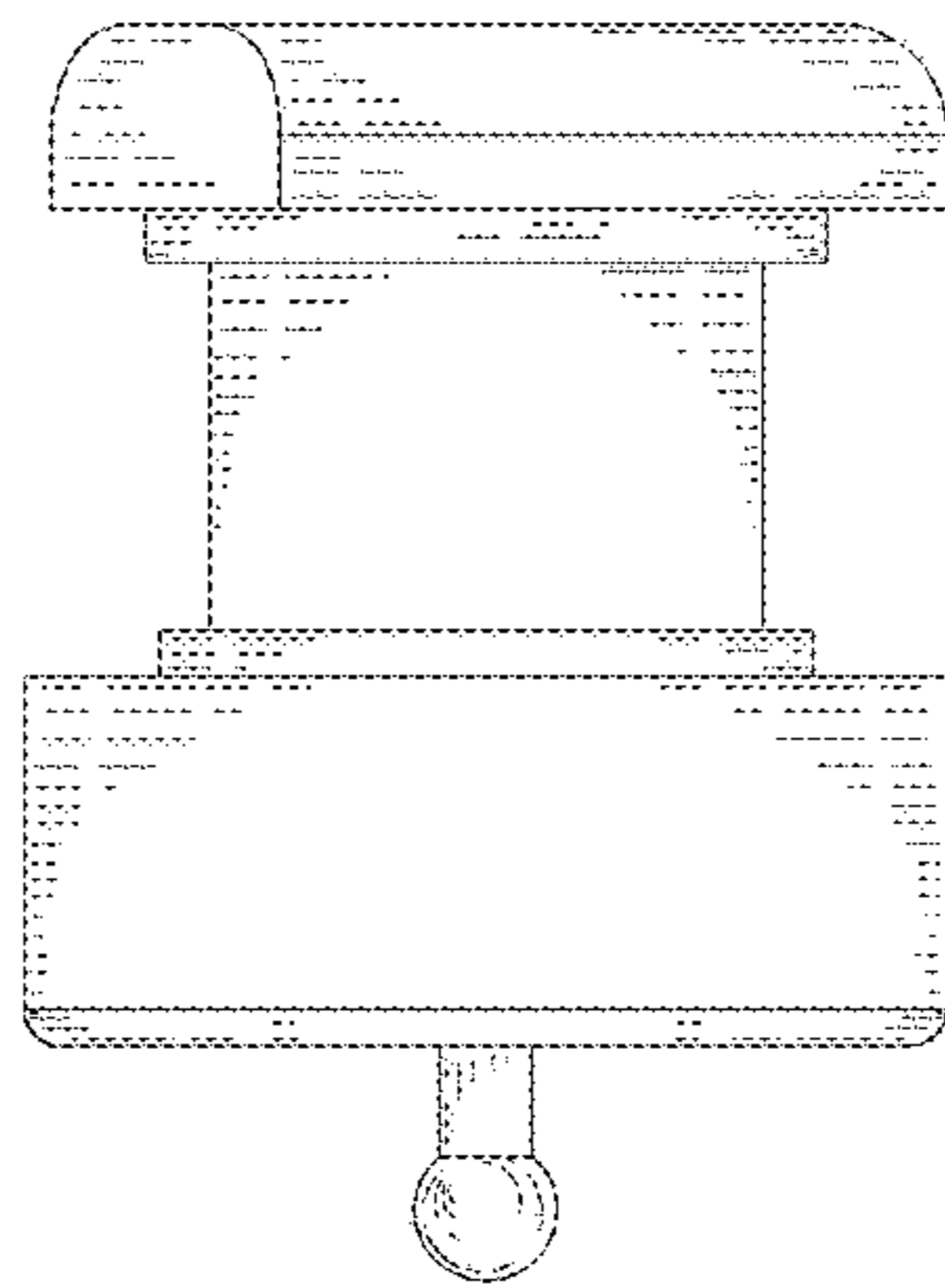


FIG. 5

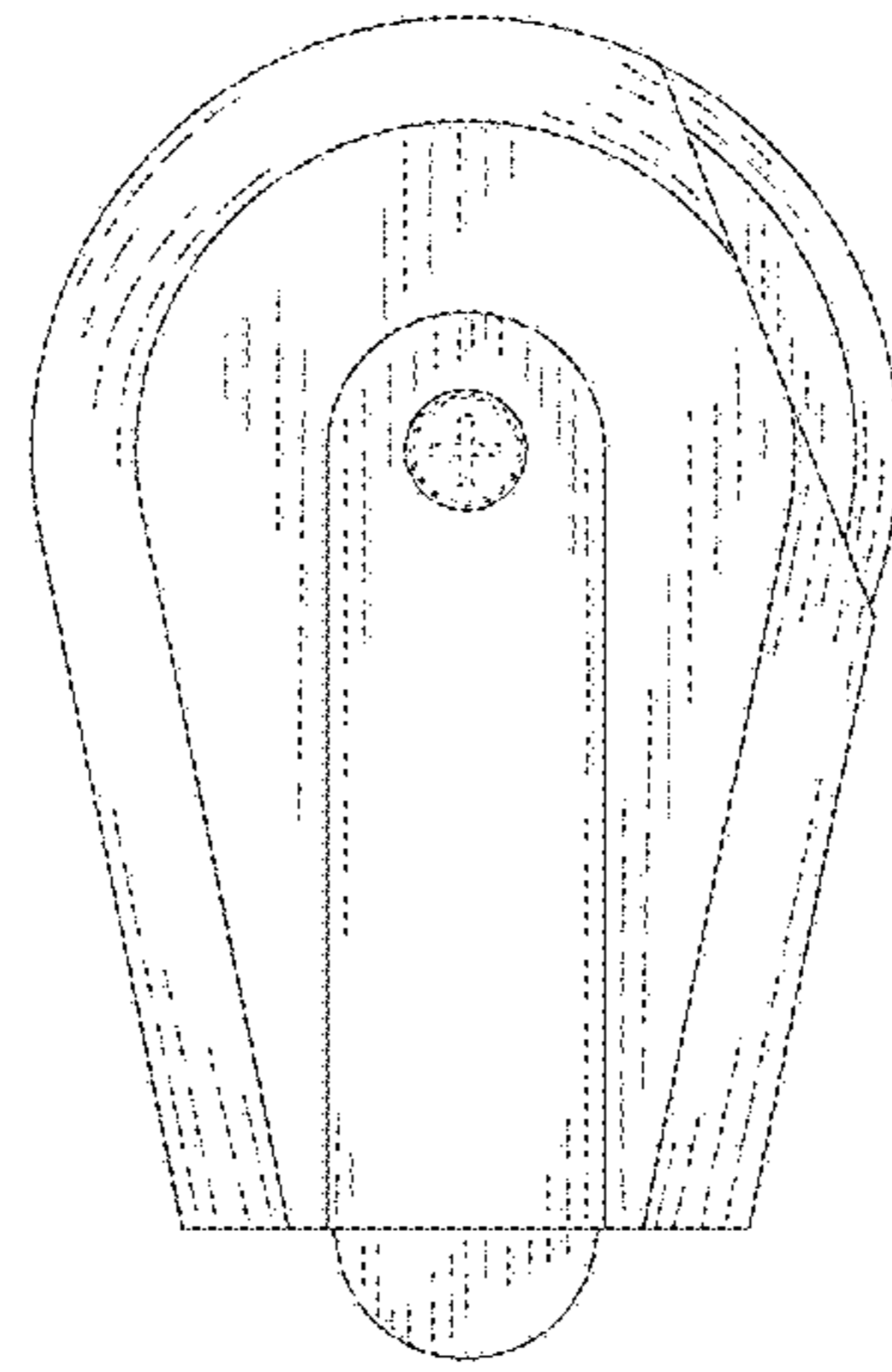


FIG. 6



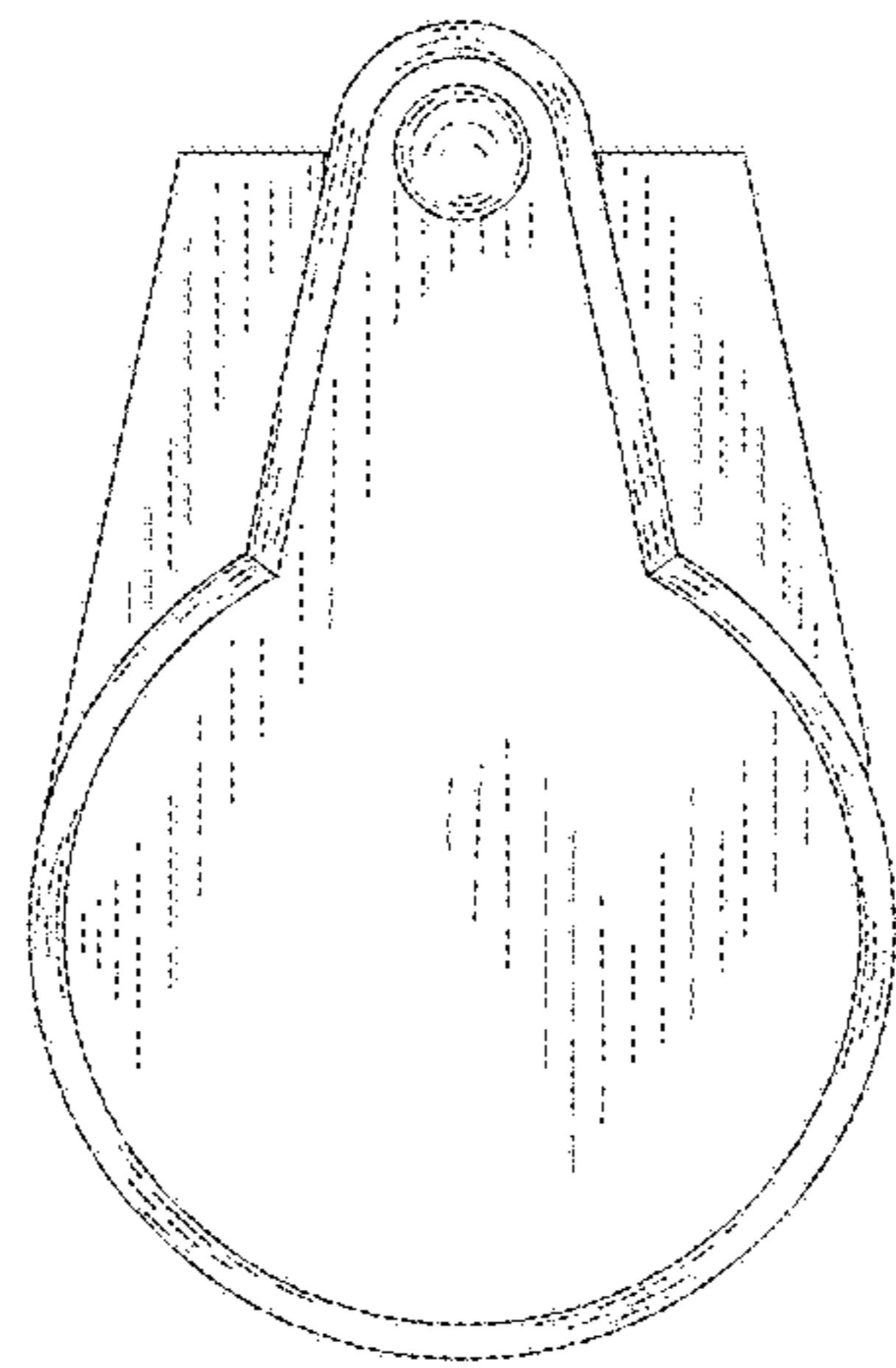


FIG. 7

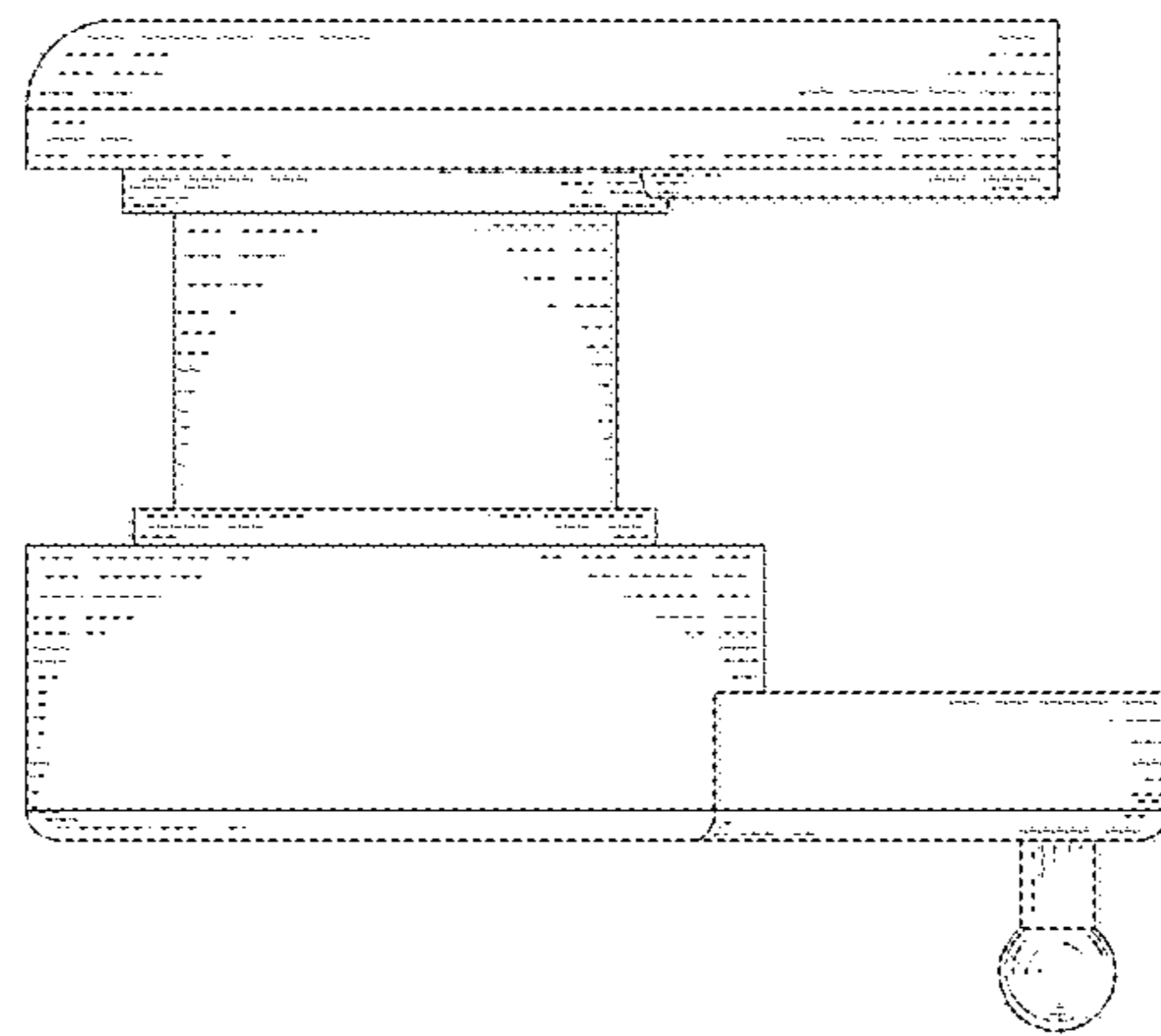


FIG. 8

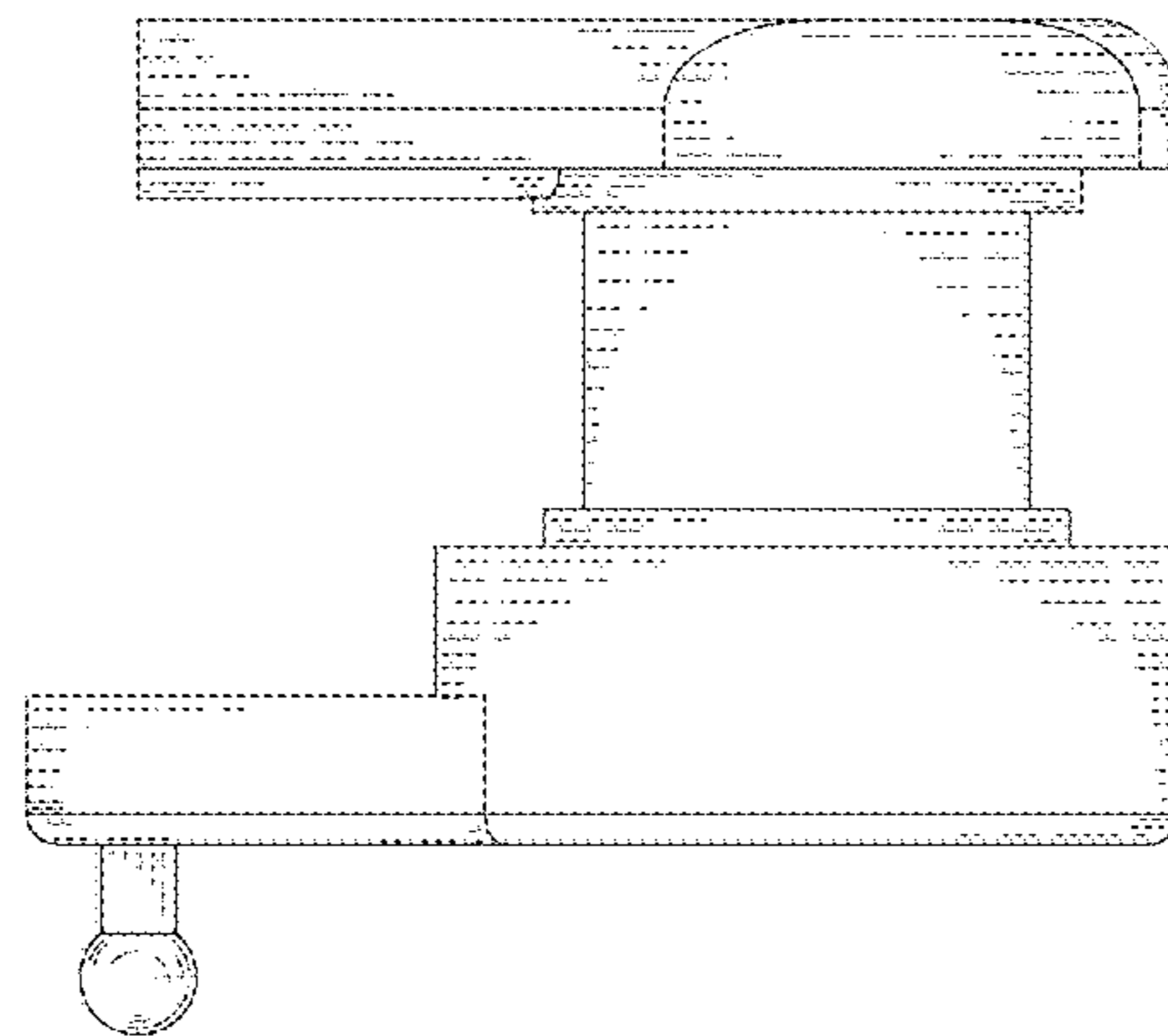


FIG. 9

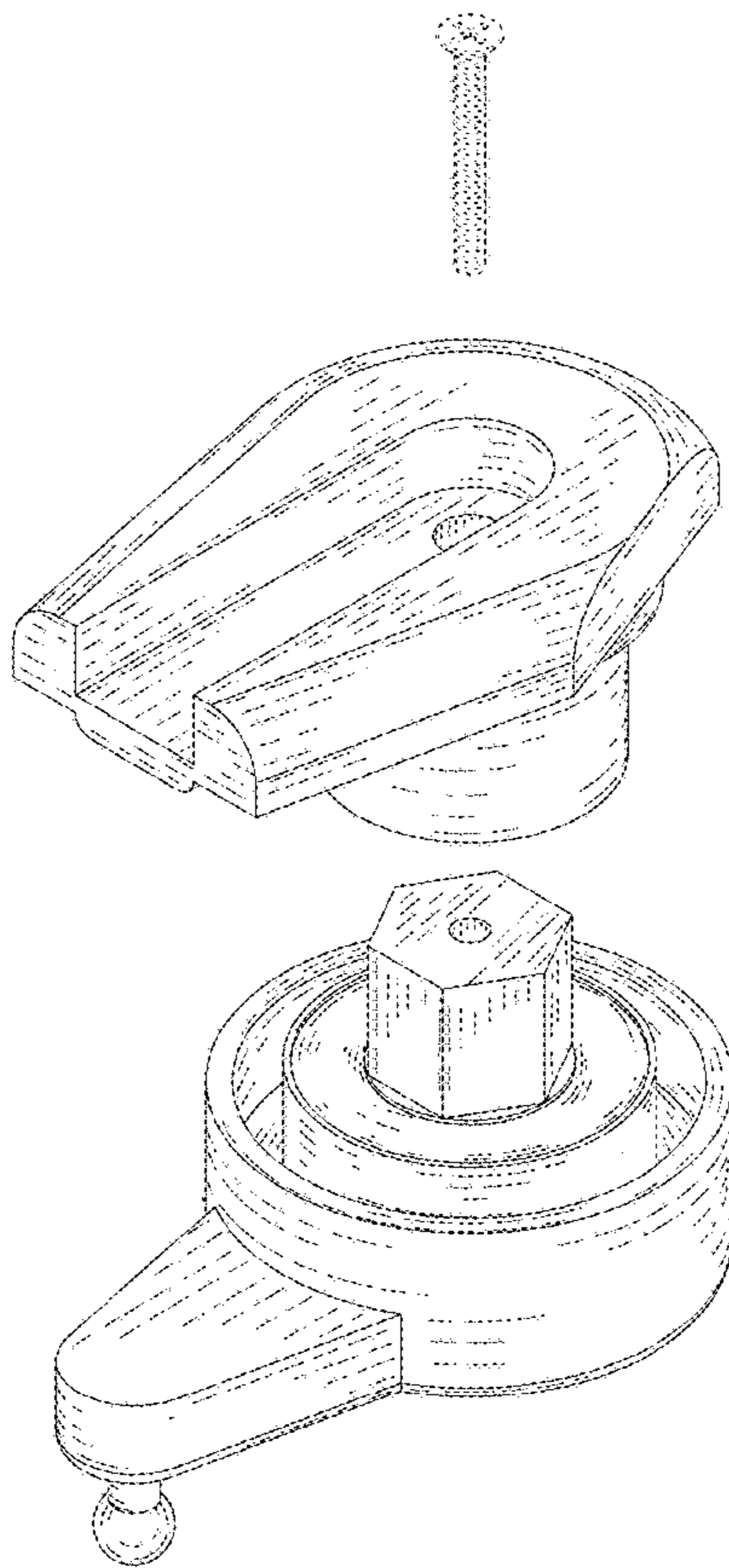


FIG. 10

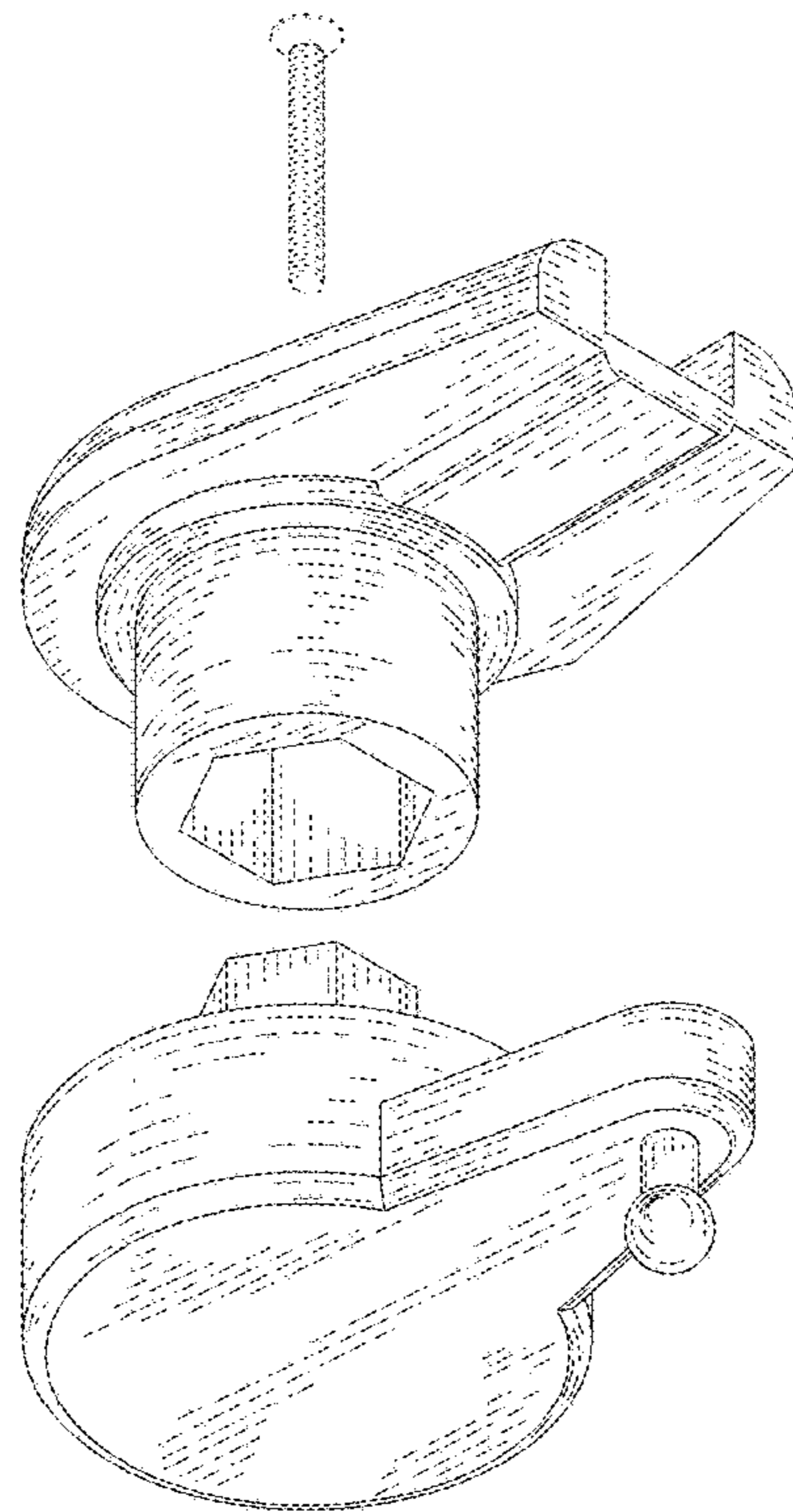


FIG. 11

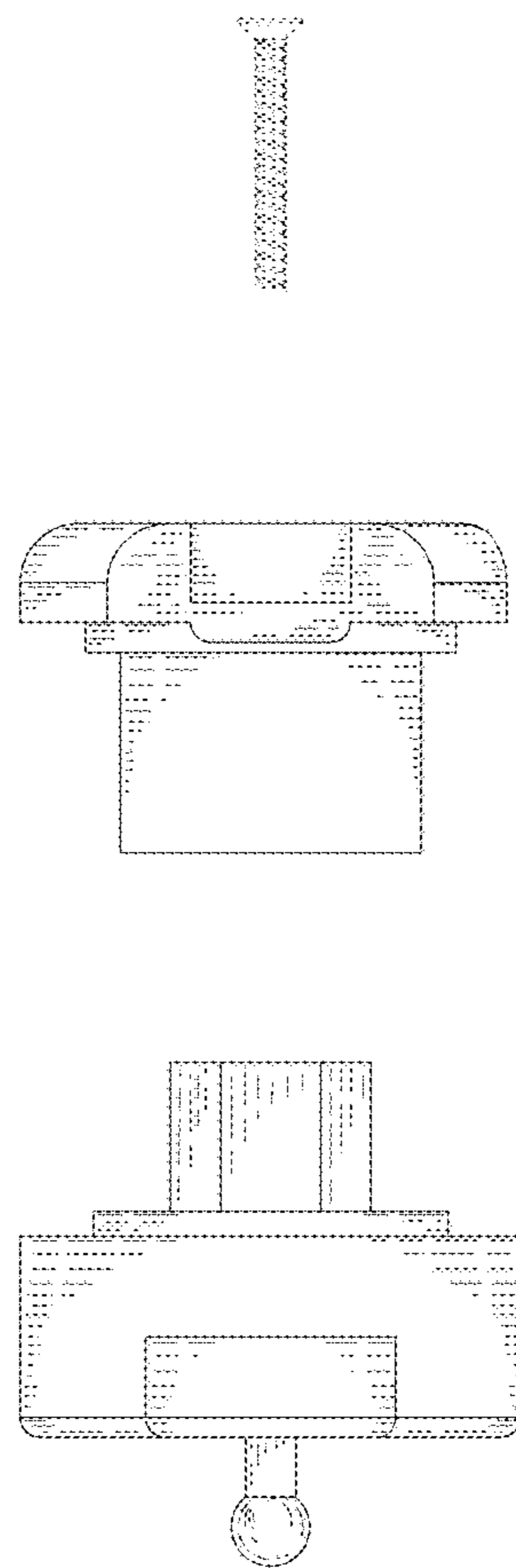


FIG. 12