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

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(54) **OPTICALLY PUMPED MAGNETOMETER  
SENSOR WITH FLAT FLEXIBLE WIRING**

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Bo Zhou**, Denver, CO (US)  
(73) Assignee: **QuSpin, Inc.**, Louisville, CO (US)

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

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(52) **U.S. Cl.**  
USPC ..... **D10/75; D24/186**

(58) **Field of Classification Search**  
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CPC ..... A61B 5/14551; A61B 5/1107; A61B  
5/14546; A61B 5/1118; A61B 5/6831;  
A61B 5/6898; A61B 5/7225; A61B  
5/024; A61B 5/1112; A61B 5/1123; A61B  
5/02; A61B 5/14553; A61B 5/369; A61B  
5/6868; A61B 8/12; A61B 8/488; A61B  
8/06; A61B 5/7217; A61B 5/0031; A61B  
5/1459; A61F 7/12; A61F 7/00; A61N  
2/02; A61N

(Continued)

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**OTHER PUBLICATIONS**

<https://nirx.net/nirscout> fNIRS NIRX systems, sensors, and probes.

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Superior Patent Group, LLC

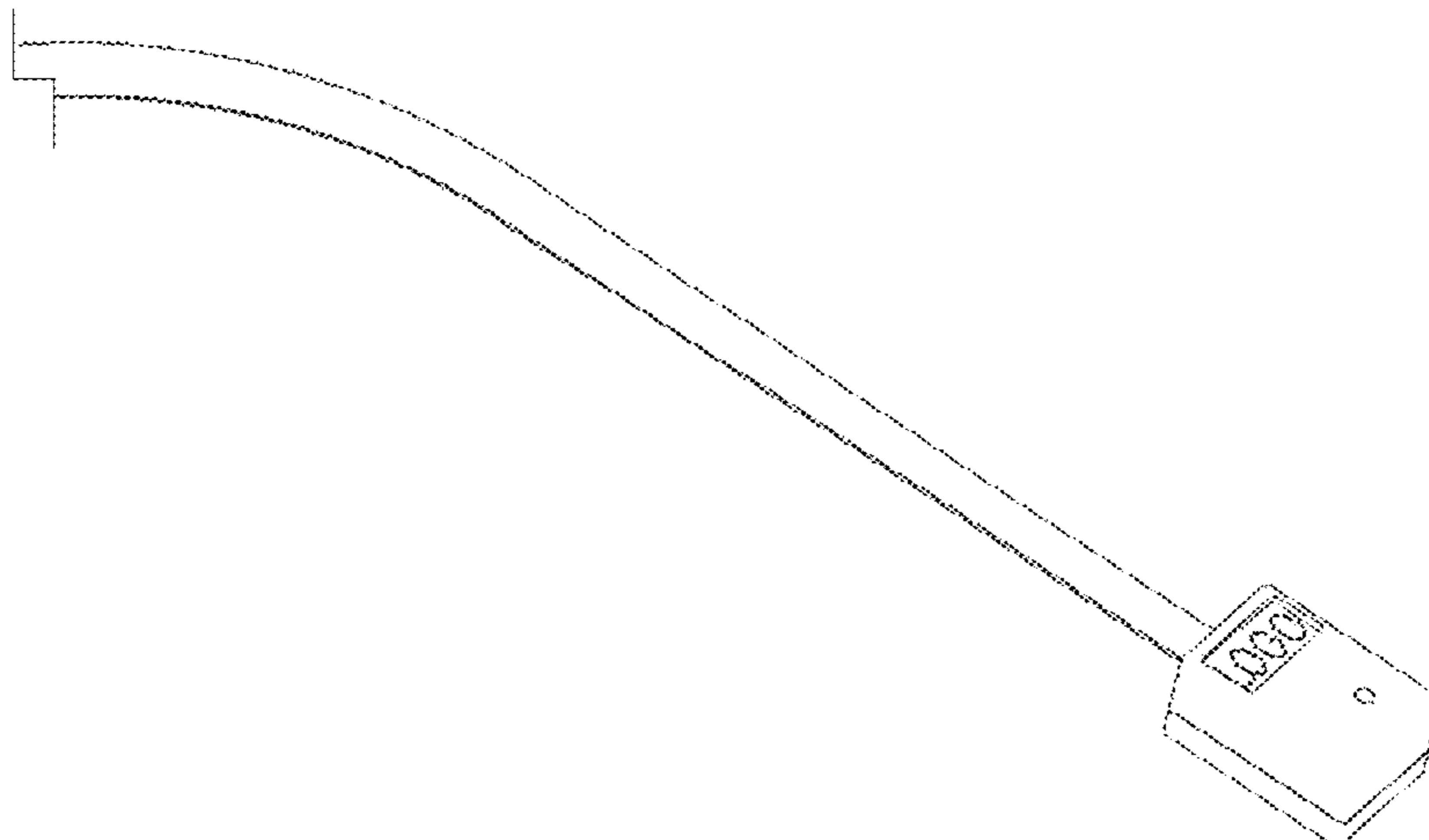
(57) **CLAIM**

The ornamental design for a optically pumped magnetometer sensor with flat flexible wiring, as shown and described.

**DESCRIPTION**

FIG. 1 is a top perspective view of embodiment 1 of the optically pumped magnetometer sensor with flat flexible wiring;  
FIG. 2 is a top view of embodiment 1 of the optically pumped magnetometer sensor with flat flexible wiring;  
FIG. 3 is a bottom view of embodiment 1 of the optically pumped magnetometer sensor with flat flexible wiring;  
FIG. 4 is a back view of embodiment 1 of the optically pumped magnetometer sensor with flat flexible wiring;  
FIG. 5 is a right and/or left view of embodiment 1 of the optically pumped magnetometer sensor with flat flexible wiring;  
FIG. 6 is a perspective view of embodiment 2 of the optically pumped magnetometer sensor with flat flexible wiring;  
FIG. 7 is a perspective view of embodiment 3 of the optically pumped magnetometer sensor with flat flexible wiring, wherein the LOGO is positioned lower on the top of the sensor;  
FIG. 8 is a perspective view of embodiment 4 of the optically pumped magnetometer sensor with flat flexible wiring, wherein the LOGO is positioned on the front of the sensor; and,  
FIG. 9 is a perspective view of embodiment 5 of the optically pumped magnetometer sensor with flat flexible wiring, wherein the LOGO is positioned on the right side of the sensor.  
The “LOGO” text indicates various text or images could be placed in that position on the sensor. FIG. 1 shows embodiment 1 of the sensor with flat flexible wiring housing,

(Continued)



wherein the wiring housing is bent to illustrate flexibility of flat flexible wiring housing. This flat flexible wiring housing is the same in all views.

**1 Claim, 6 Drawing Sheets**

**(58) Field of Classification Search**

CPC ..... 5/0622; A61N 1/36082; A61N 2007/0043;  
A61N 1/36139; A61N 1/3614; A61N  
2/006; A61N 1/36064; A61N 1/36057;  
A61N 7/00

See application file for complete search history.

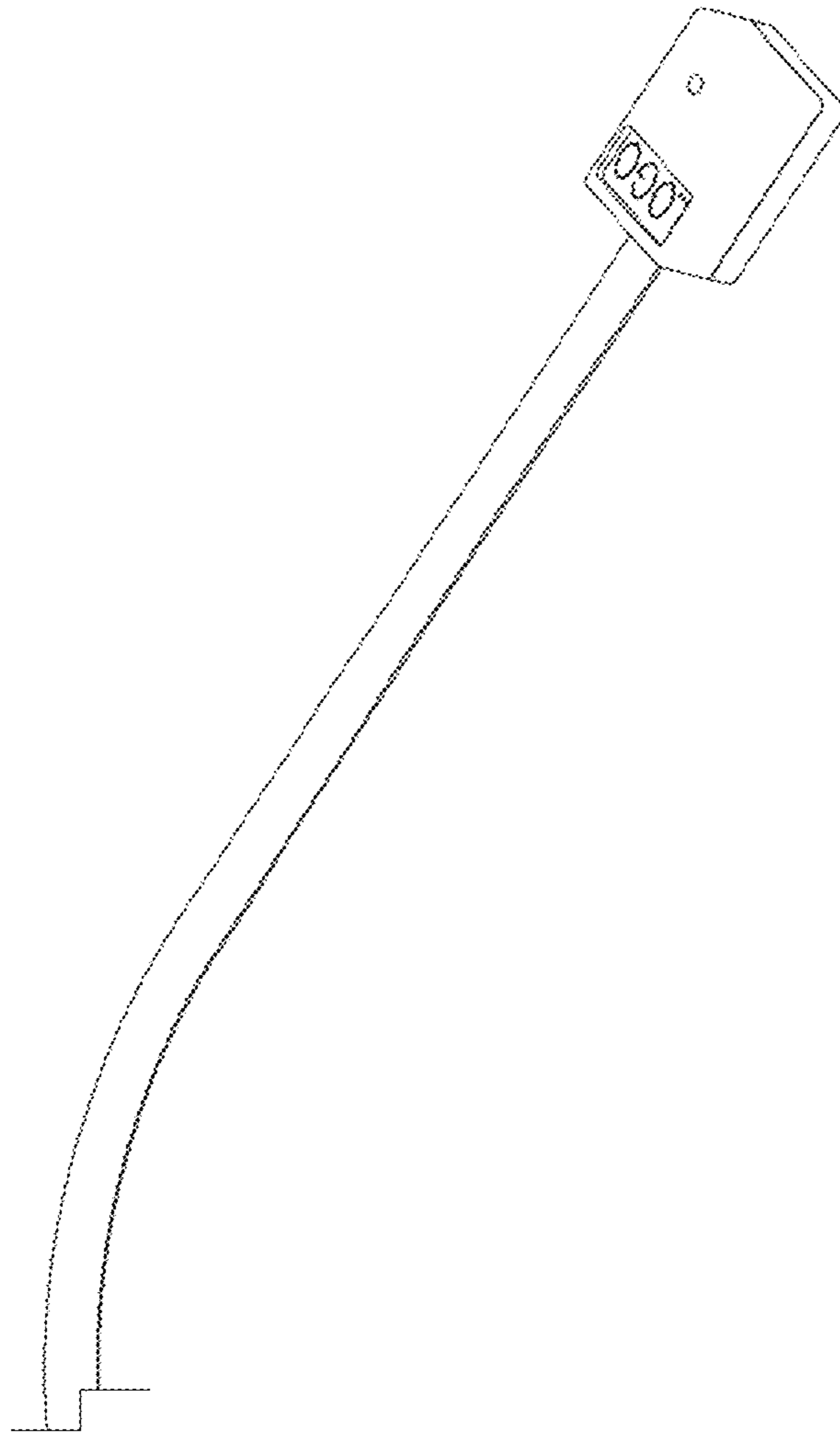


FIG. 1

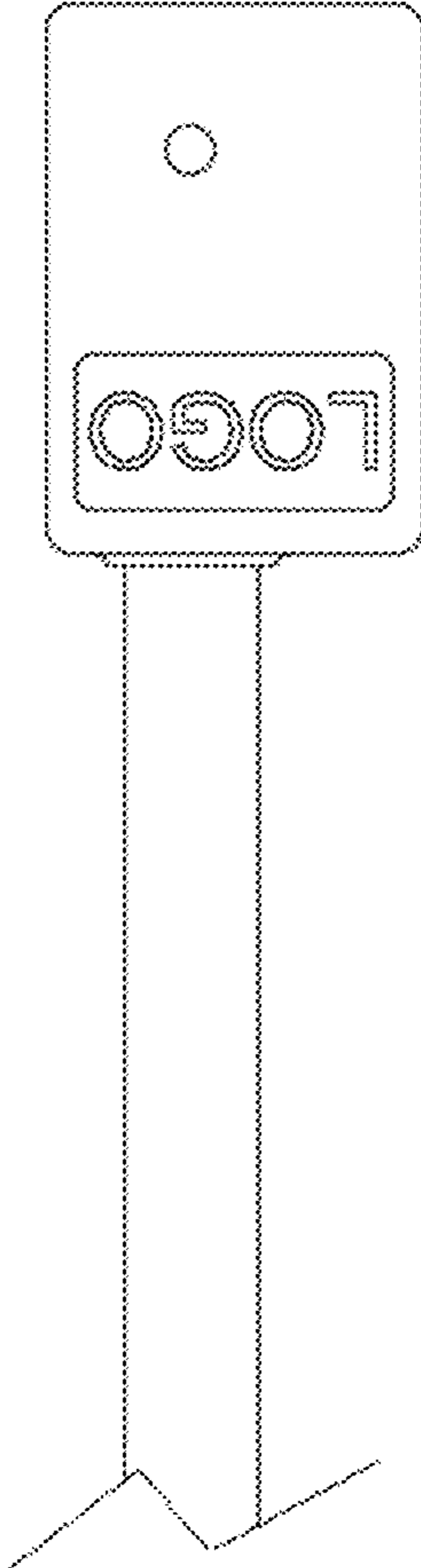


FIG. 2

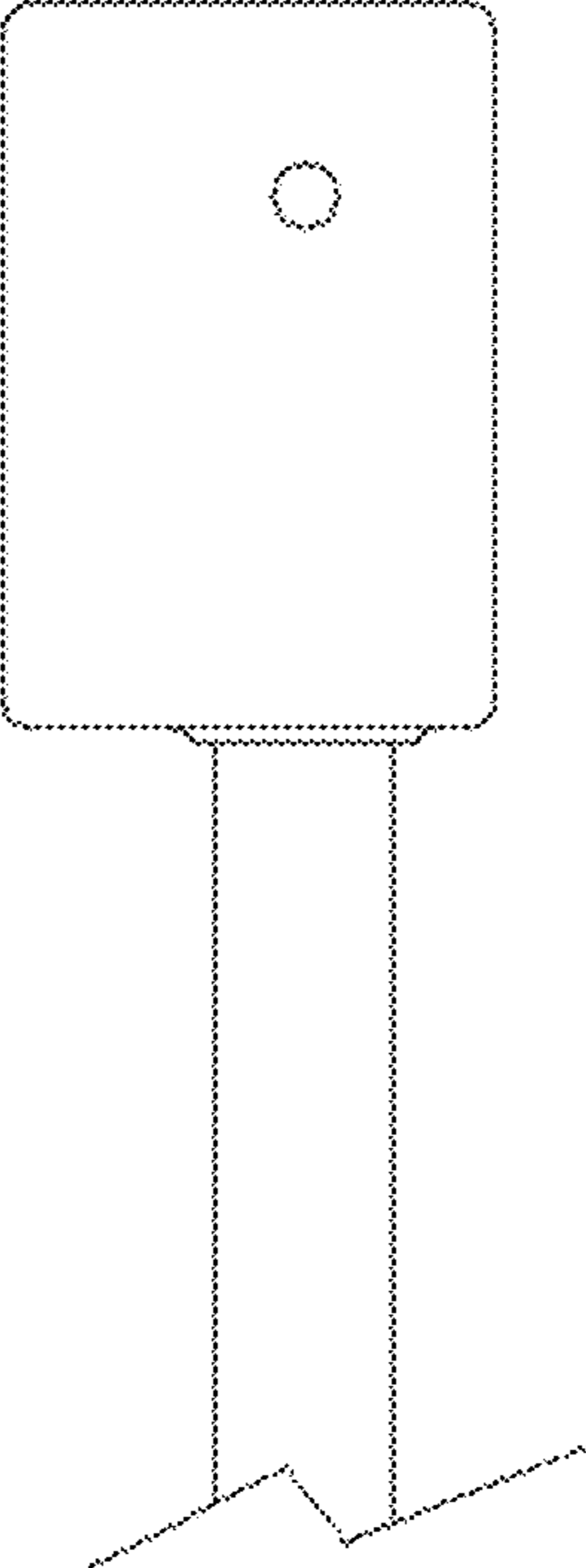


FIG. 3

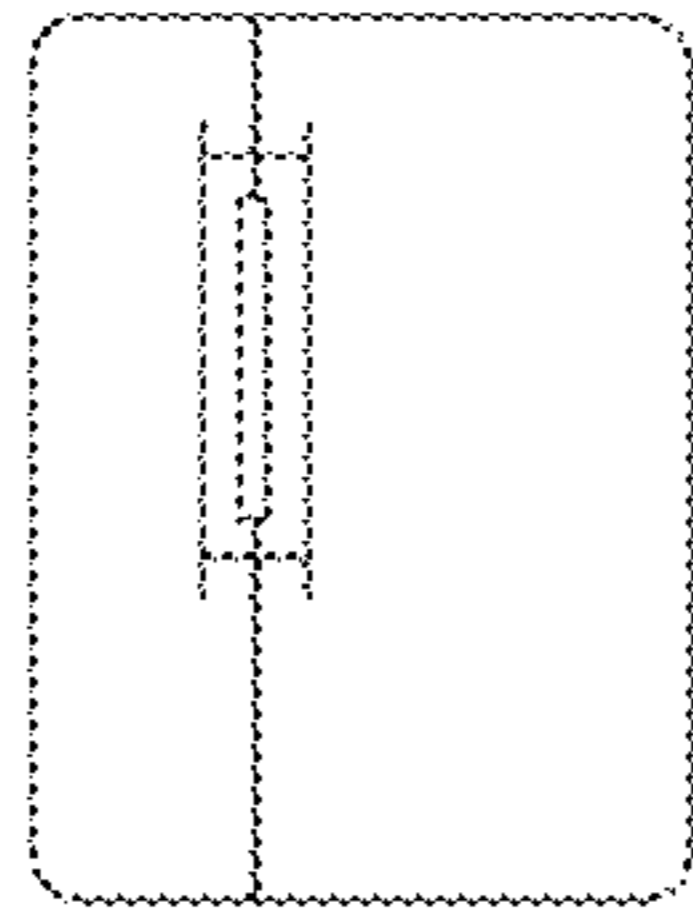


FIG. 4

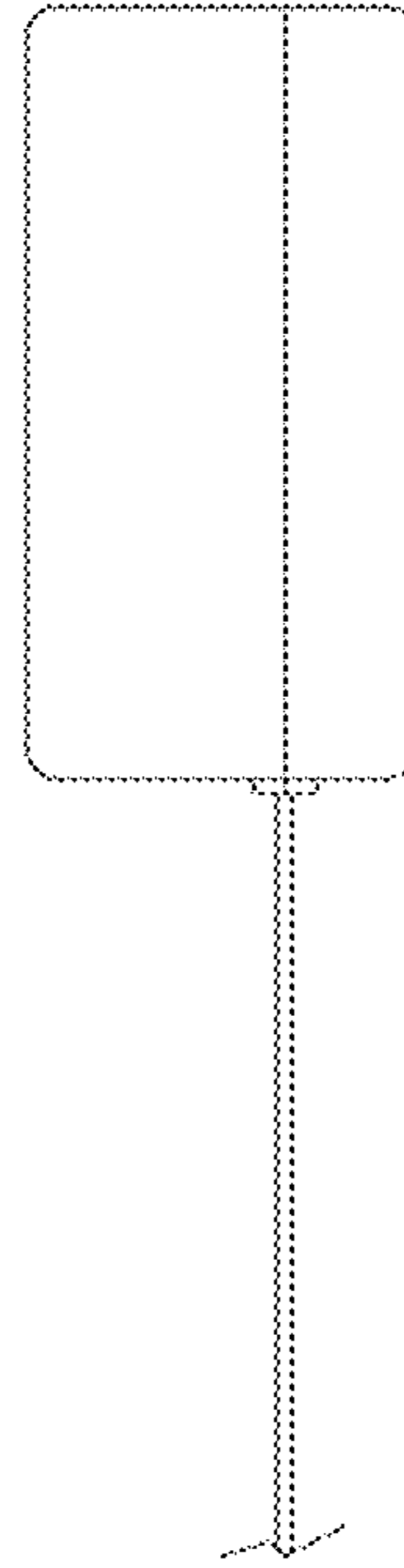


FIG. 5

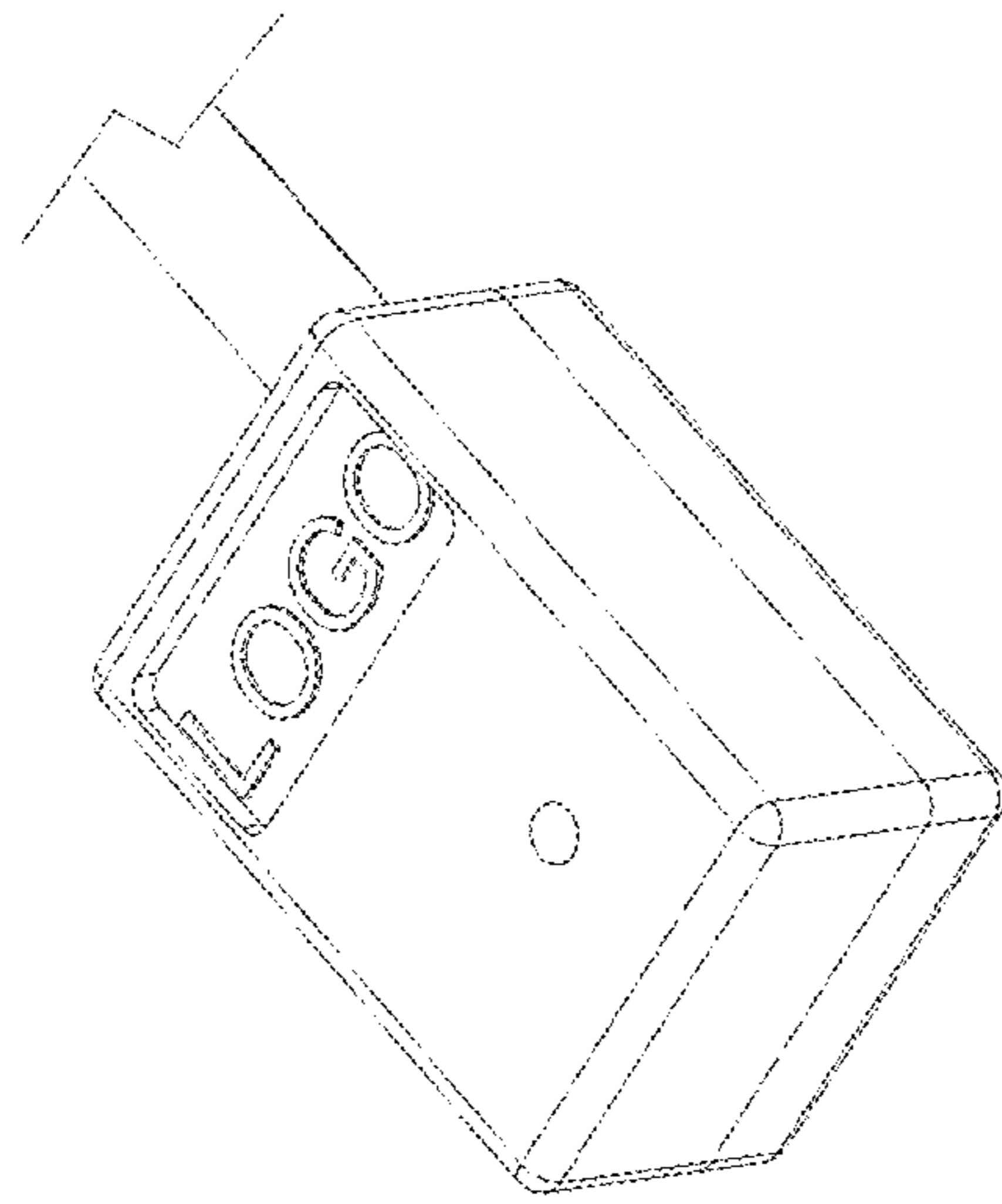


FIG. 6

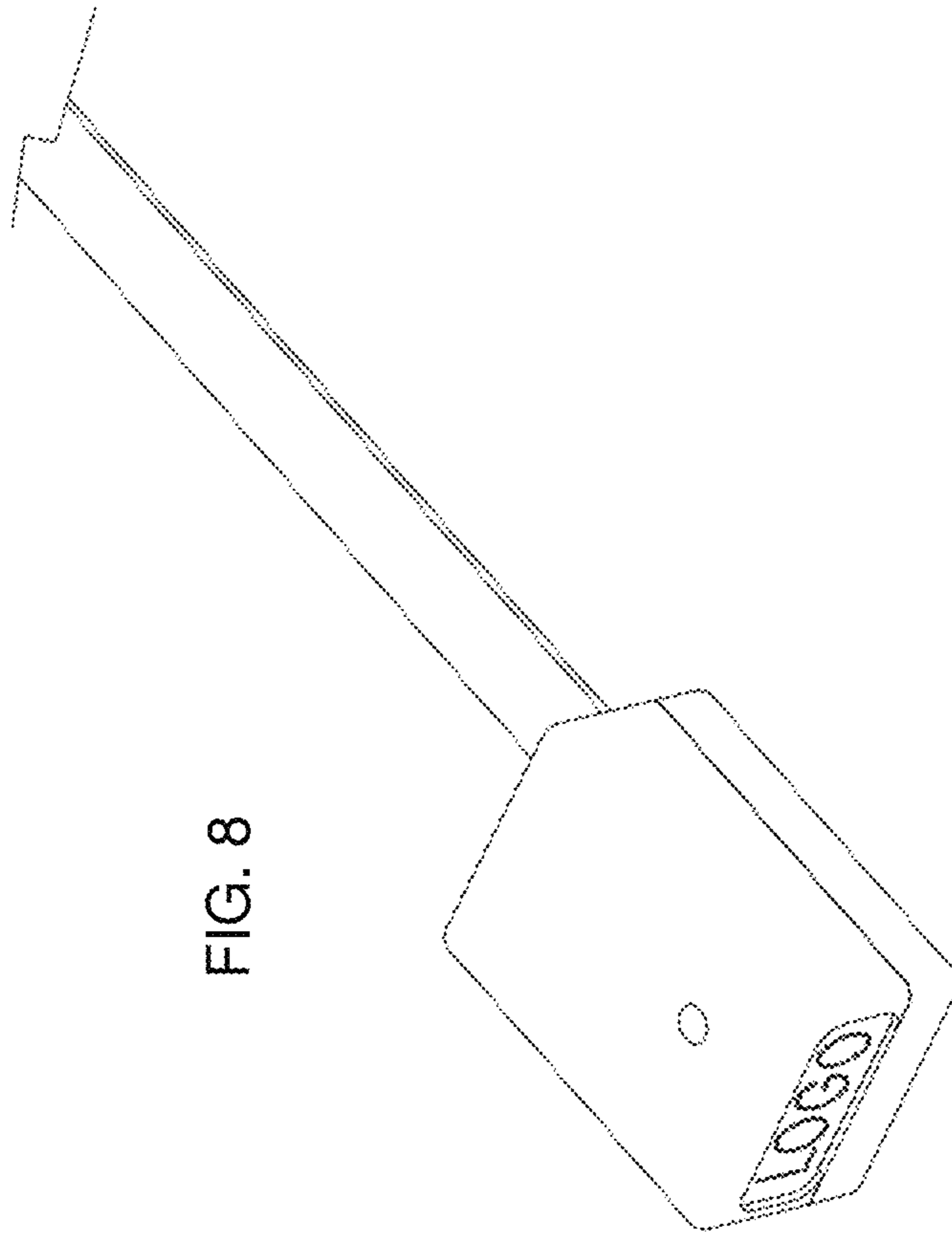


FIG. 8

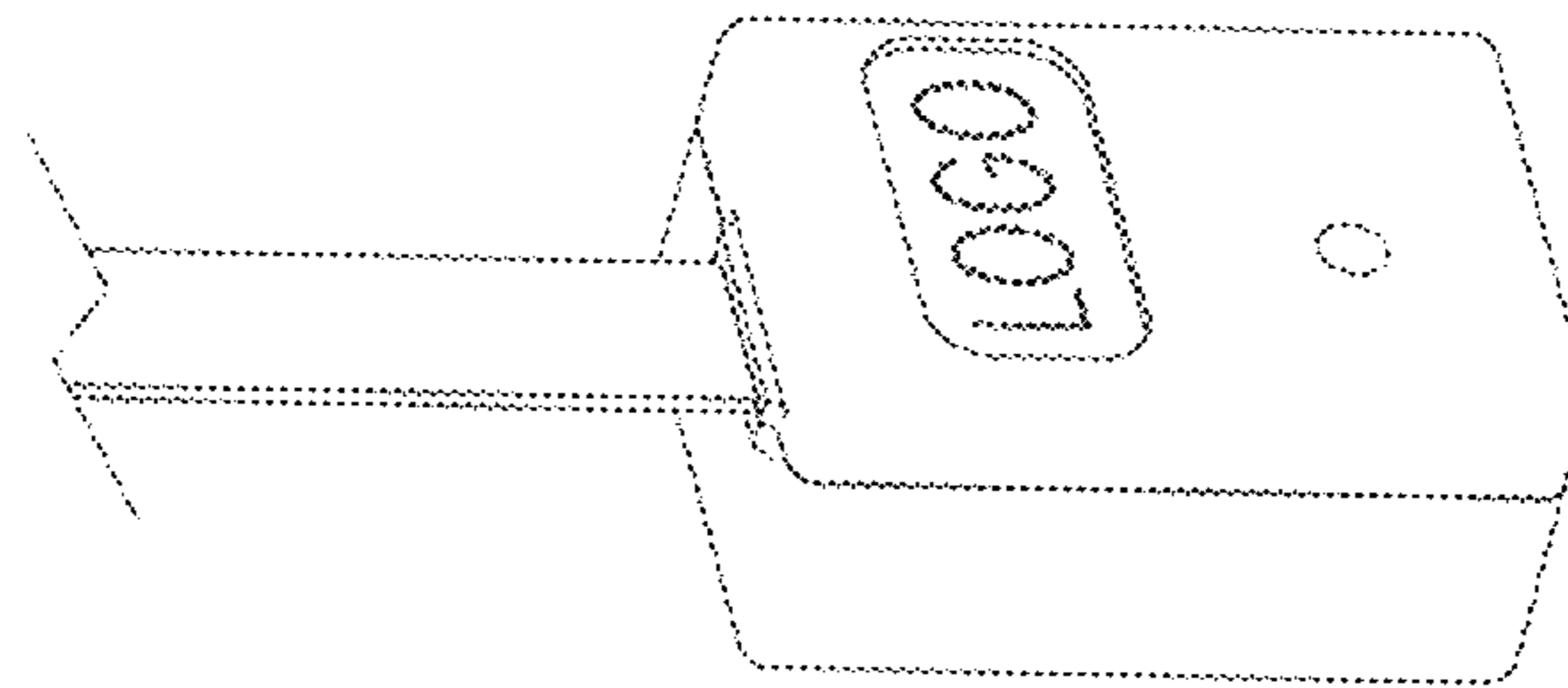


FIG. 7

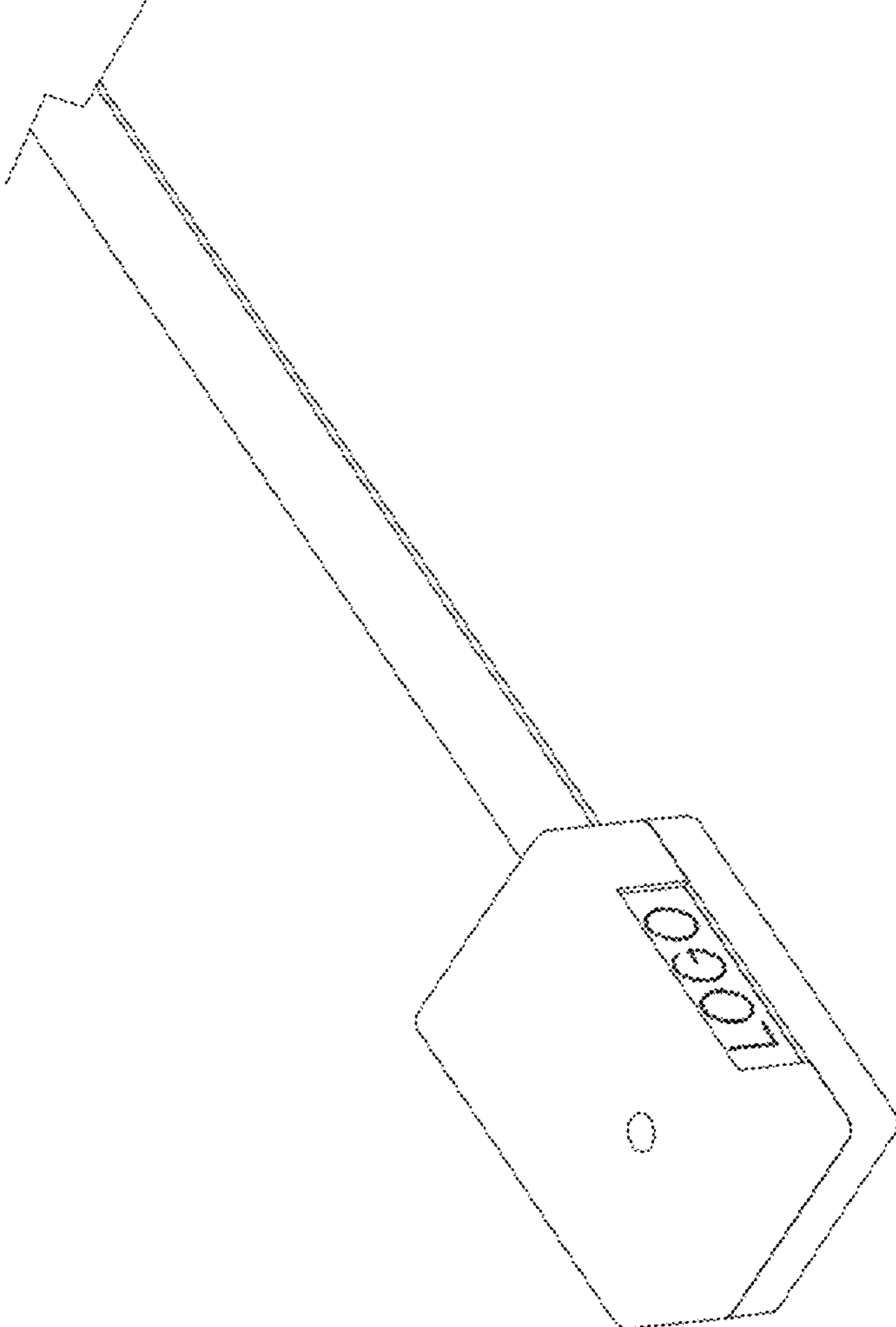


FIG. 9