



US00D527750S

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

(10) **Patent No.:** **US D527,750 S**

(45) **Date of Patent:** **** Sep. 5, 2006**

(54) **CYLINDRICAL MANDREL**

D457,899 S * 5/2002 Nam et al. D15/138

(75) Inventors: **Jeffrey Prince**, Grass Valley, CA (US);
Rod Duncan, Plano, TX (US); **Branko Bem**, Plano, TX (US)

* cited by examiner

Primary Examiner—Antoine D. Davis

Assistant Examiner—Patricia Palasik

(73) Assignee: **D4D Technologies, L.P.**, Richardson, TX (US)

(74) *Attorney, Agent, or Firm*—David W. Carstens; Carstens & Cahoon, LLP

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

(57) **CLAIM**

The ornamental design for a cylindrical mandrel, as shown and described.

(21) Appl. No.: **29/209,124**

(22) Filed: **Jul. 9, 2004**

DESCRIPTION

(51) **LOC (8) Cl.** **15-09**

(52) **U.S. Cl.** **D15/138**

(58) **Field of Classification Search** D15/138,
D15/139, 140–142; D25/123, 125, 42–44;
72/370, 391.4; 249/52, 177, 144, 57; 264/302,
264/510, 102, 257, DIG. 55; 425/275, 393,
425/403, 215, 469, DIG. 10, DIG. 42; 408/235,
408/714; 409/219, 241; 451/178; 601/141;
606/191, 192, 185; 604/264

FIG. 1 is a perspective view of the cylindrical mandrel of the present invention;

FIG. 2 is a first end view of the cylindrical mandrel of the present invention;

FIG. 3 is a second end view of the cylindrical mandrel of the present invention;

FIG. 4 is a right side view of the cylindrical mandrel of the present invention; and

FIG. 5 is a left side view of the cylindrical mandrel of the present invention.

FIG. 6 is a top view of the cylindrical mandrel of the present invention.

FIG. 7 is a bottom view of the cylindrical mandrel of the present invention; and,

The broken line showing is for illustrative purposes only and forms no part of the claimed design.

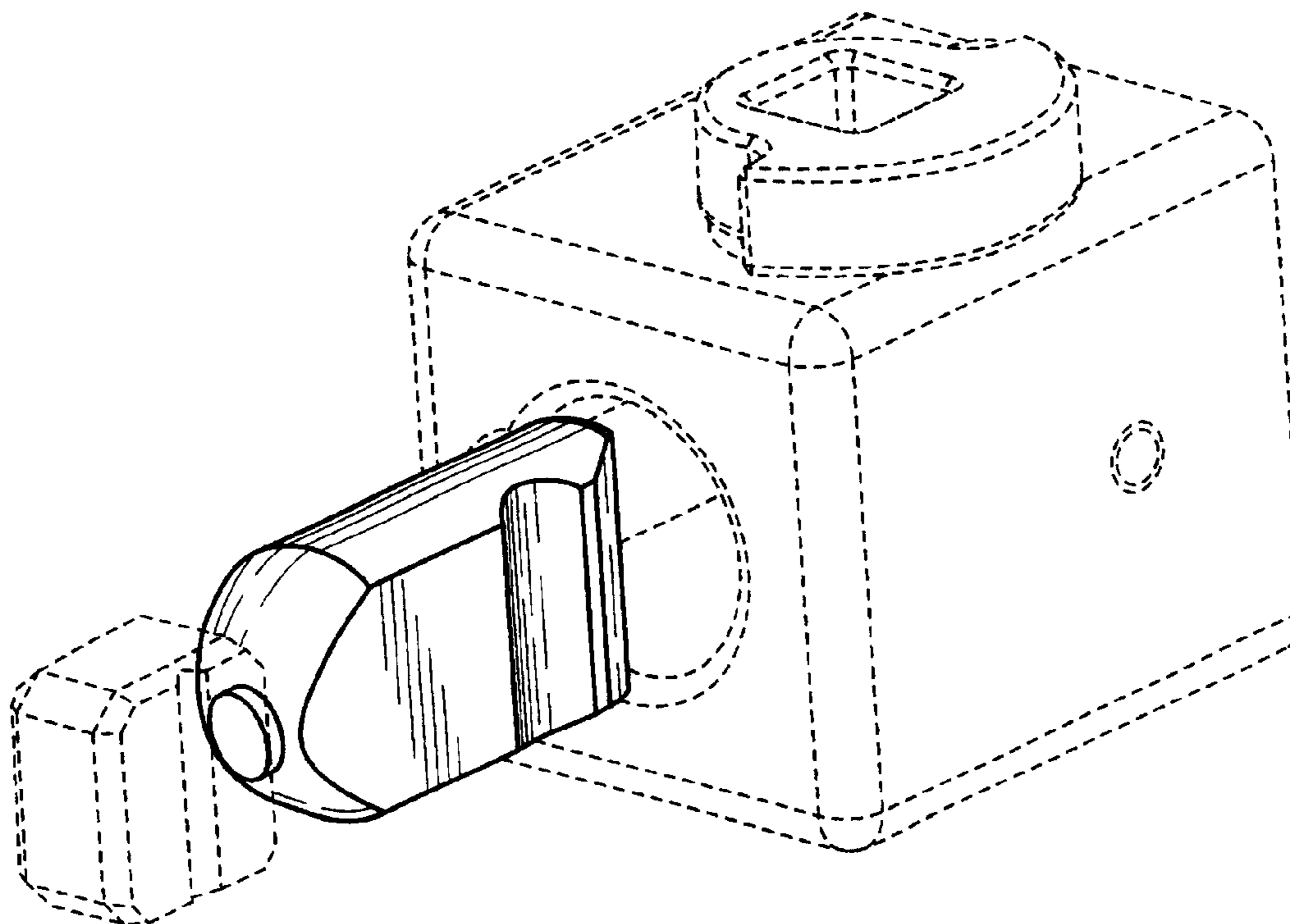
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 3,413,391 A * 11/1968 Carroll et al. 264/102
- 4,695,241 A * 9/1987 Ventimiglia 425/275
- 4,982,687 A * 1/1991 Takahashi et al. 118/410
- D336,094 S * 6/1993 Dejanon D15/138

1 Claim, 3 Drawing Sheets



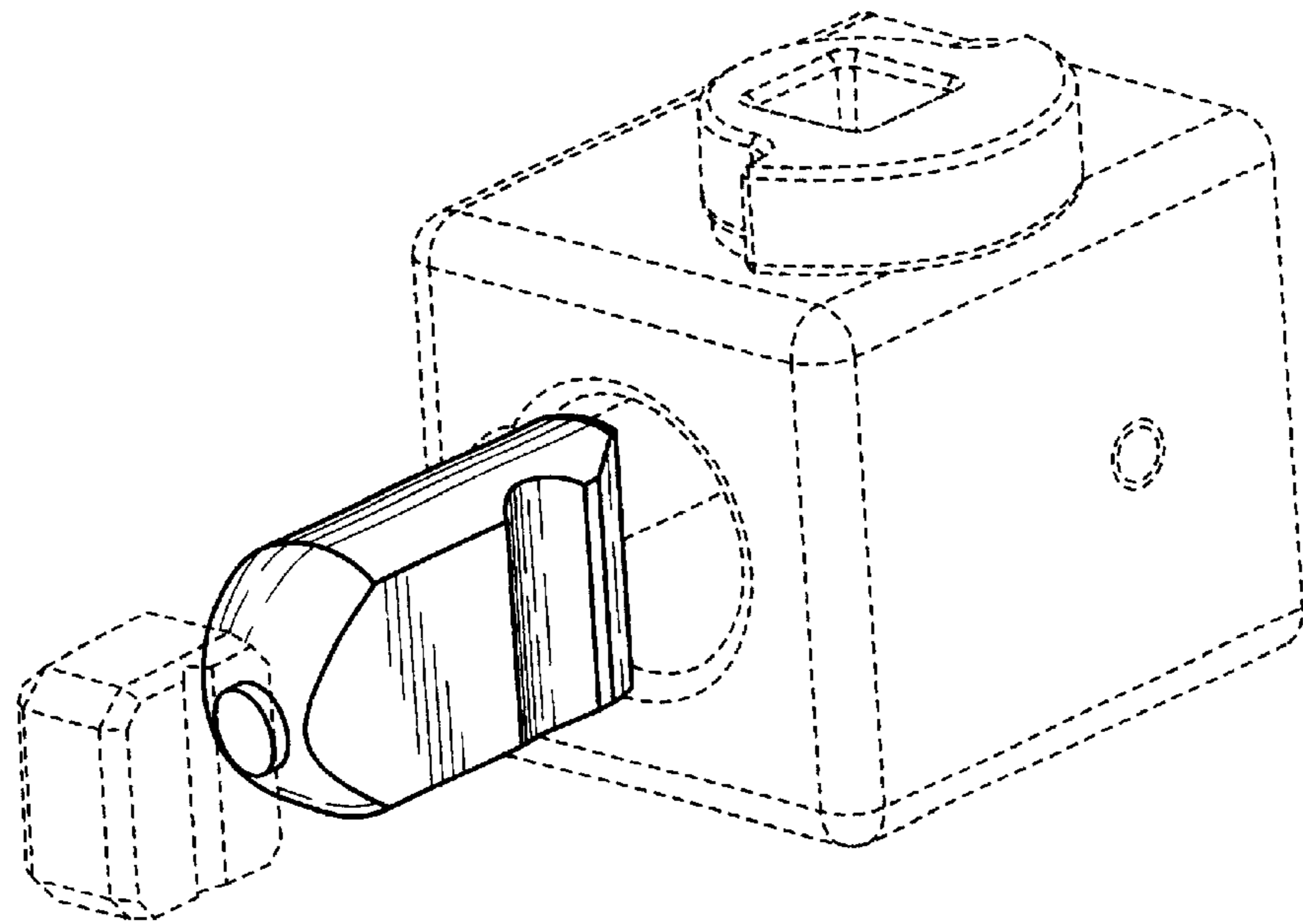


FIG. 1

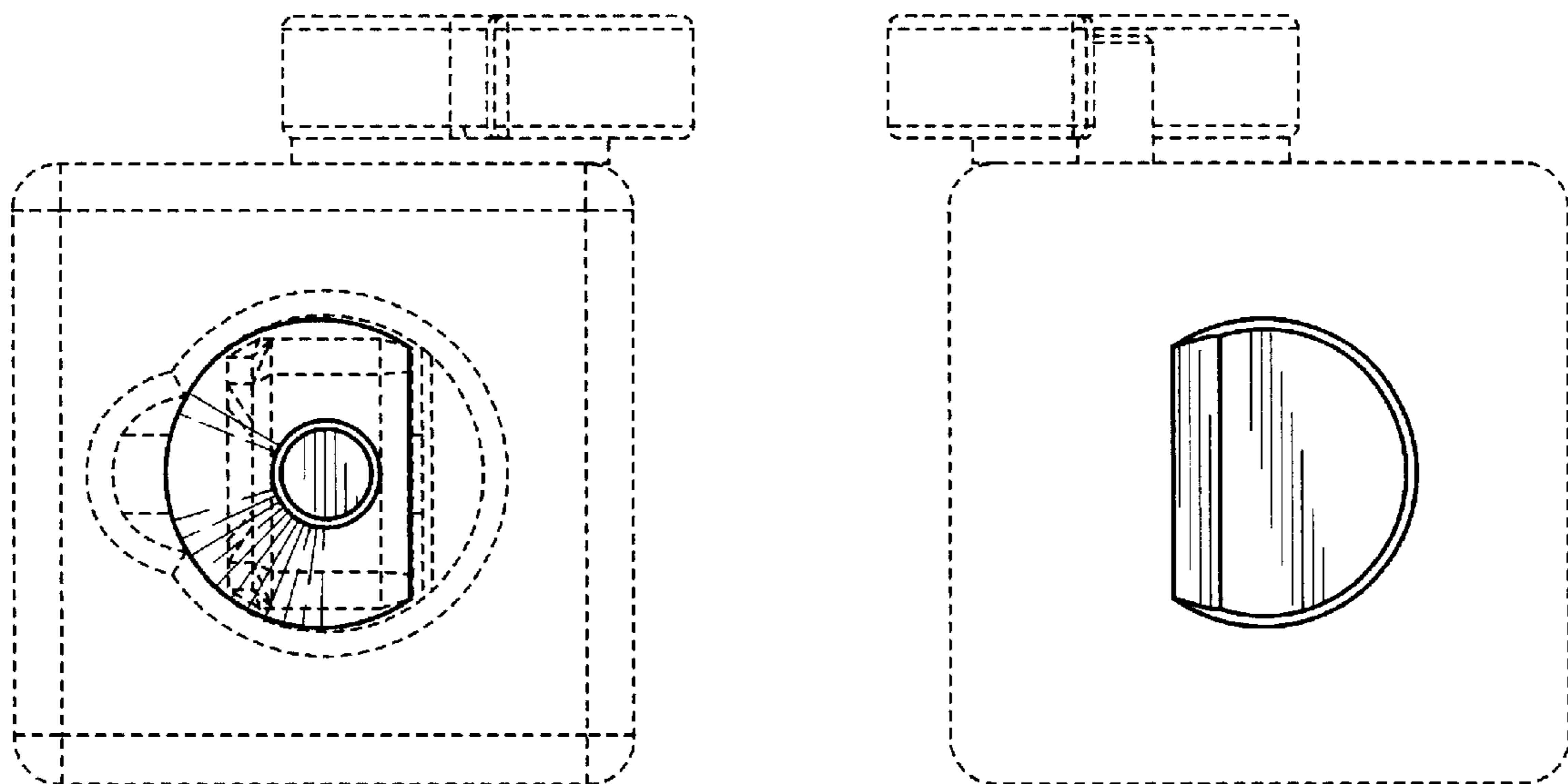


FIG. 2

FIG. 3

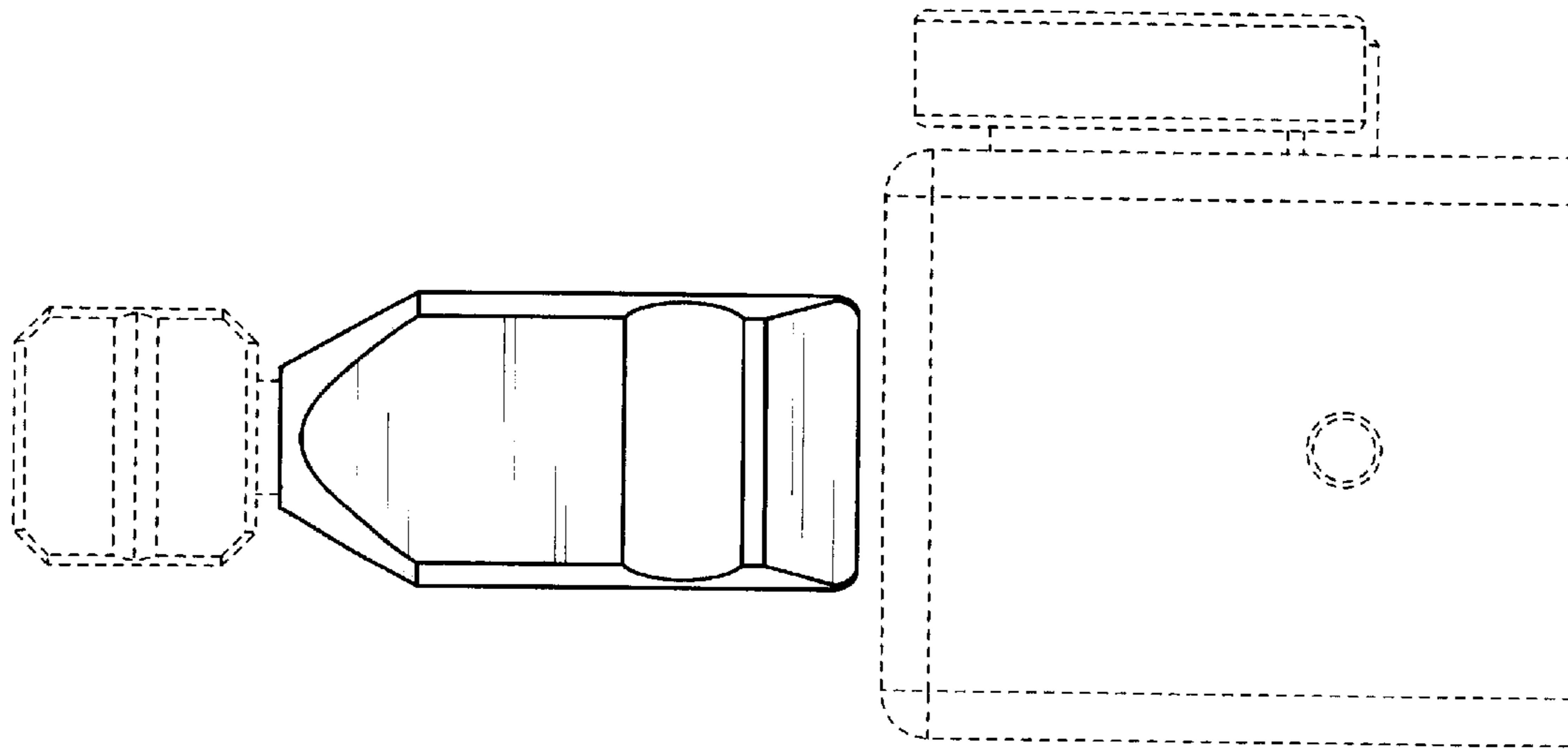


FIG. 4

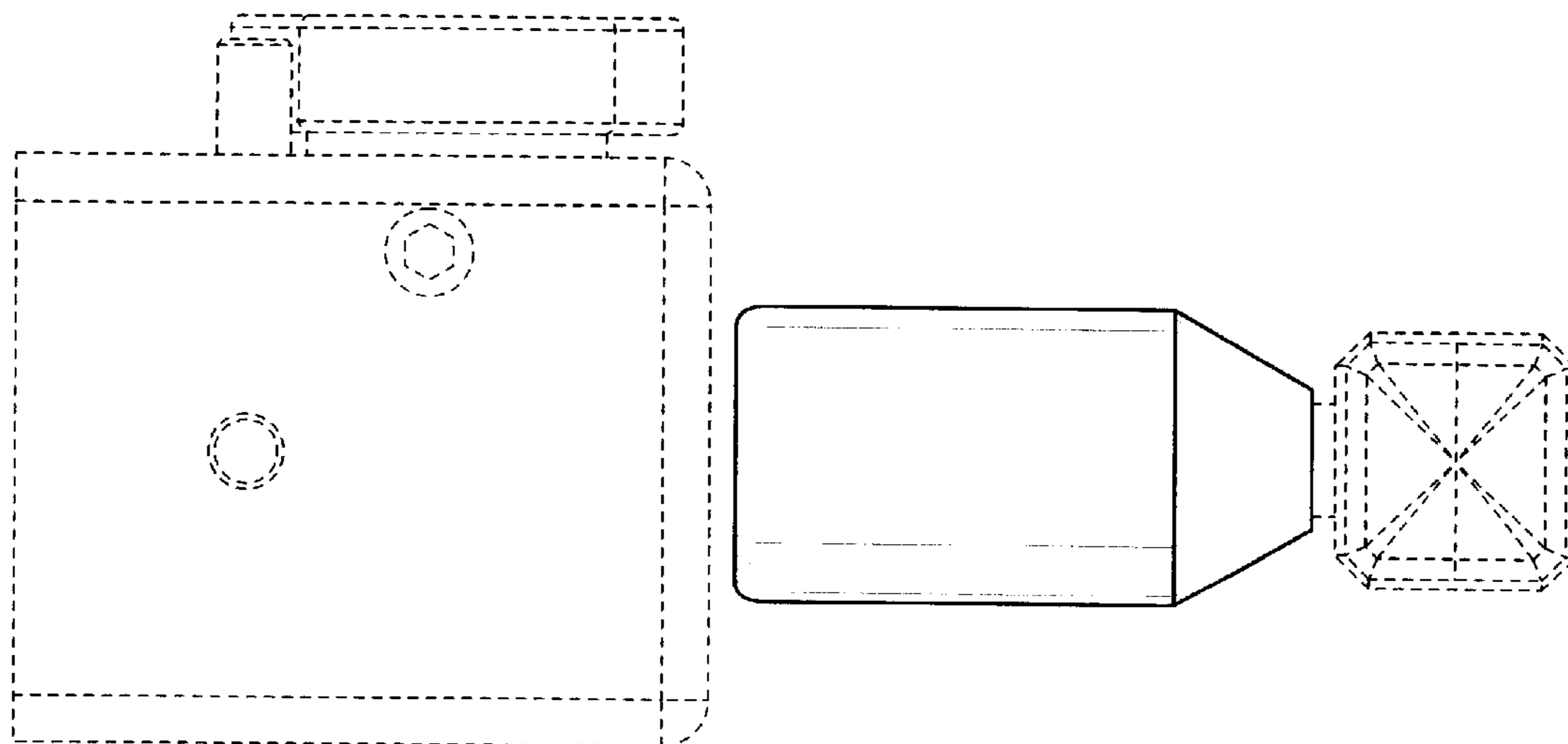


FIG. 5

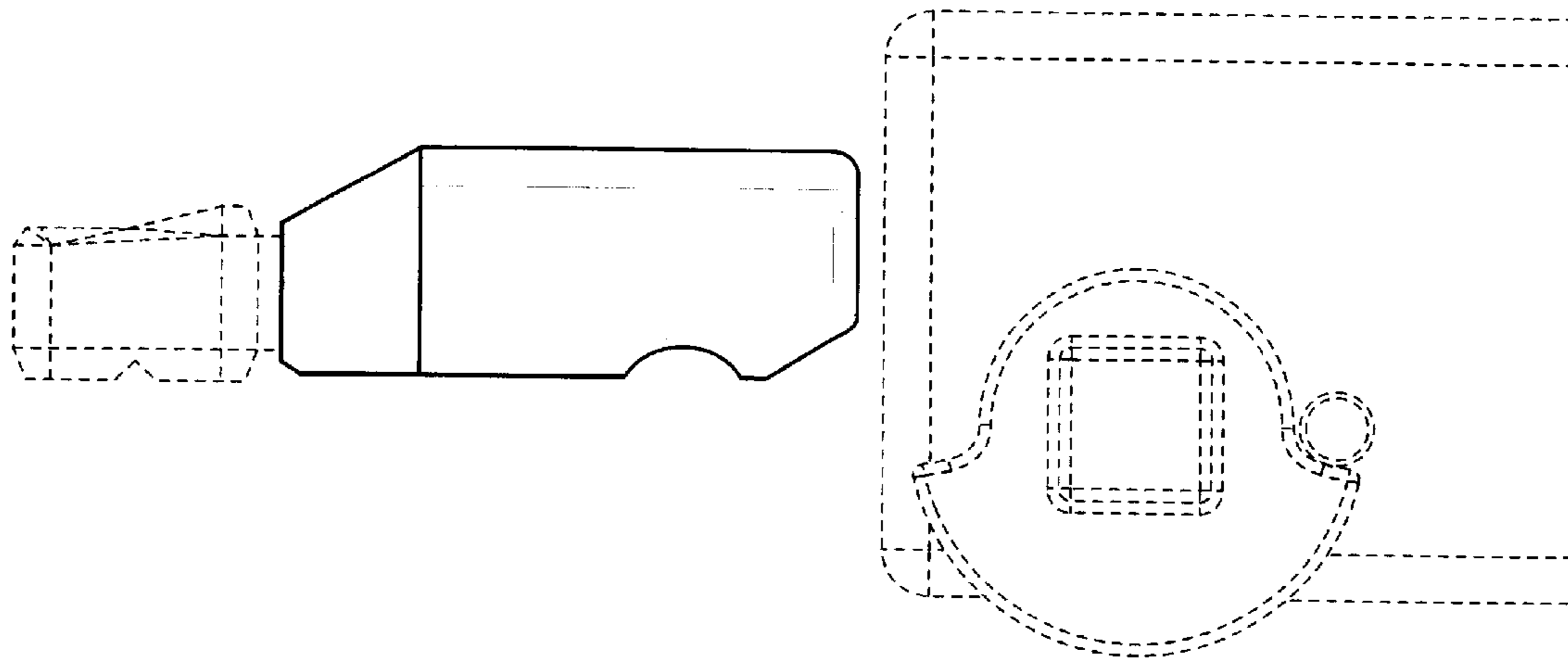


FIG. 6

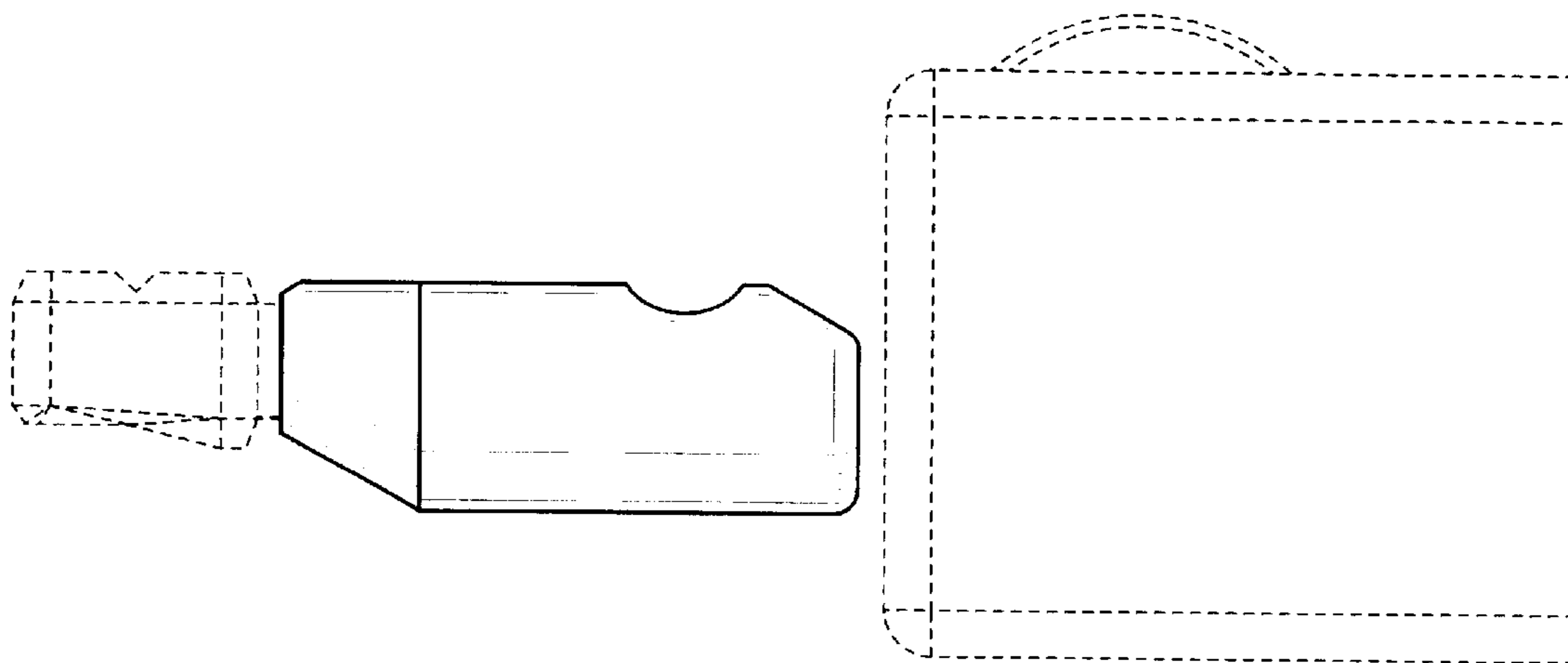


FIG. 7