



US00D919833S

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

(10) **Patent No.:** **US D919,833 S**

(45) **Date of Patent:** **** May 18, 2021**

(54) **MICRO VALVE FOR CONTROLLING PATH OF FLUIDS IN MINIATURIZED CAPILLARY CONNECTIONS**

(71) Applicant: **PRINCETON BIOCHEMICALS, INC.**, Princeton, NJ (US)

(72) Inventors: **Norberto Guzman**, East Brunswick, NJ (US); **Daniel E. Guzman**, East Brunswick, NJ (US)

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

(21) Appl. No.: **29/682,566**

(22) Filed: **Mar. 6, 2019**

(51) **LOC (13) Cl.** **24-01**

(52) **U.S. Cl.**
USPC **D24/232**

(58) **Field of Classification Search**
USPC D24/216, 223, 224, 231, 232, 233;
D10/81
CPC G01N 27/447; G01N 27/44743; G01N 27/44765; G01N 33/5302; G01N 33/543; B01L 2200/026; B01L 2200/0642; B01L 2200/0663

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

D271,570 S * 11/1983 Cain D24/232
5,202,010 A * 4/1993 Guzman G01N 27/44743
204/601

6,190,616 B1 * 2/2001 Jovanovich G01N 30/6039
137/625.17
D558,889 S * 1/2008 Doll D24/232
D603,525 S * 11/2009 Foreman D24/232
8,007,725 B2 * 8/2011 Guzman G01N 27/44743
422/82.01
D874,959 S * 2/2020 Buie D24/224
2009/0301885 A1 * 12/2009 Guzman G01N 33/543
204/601
2018/0280972 A1 * 10/2018 Guzman G01N 27/44743

* cited by examiner

Primary Examiner — Anhdao Doan

(74) *Attorney, Agent, or Firm* — Porzio Bromberg & Newman P.C.

(57) **CLAIM**

We claim, the ornamental design for a micro valve for controlling path of fluids in miniaturized capillary connections, as shown and described.

DESCRIPTION

FIG. 1 is a perspective view of a micro valve for controlling path of fluids in miniaturized capillary connections showing our new design;

FIG. 2 is a front view of FIG. 1;

FIG. 3 is a rear view of FIG. 1;

FIG. 4 is a right side view of FIG. 1;

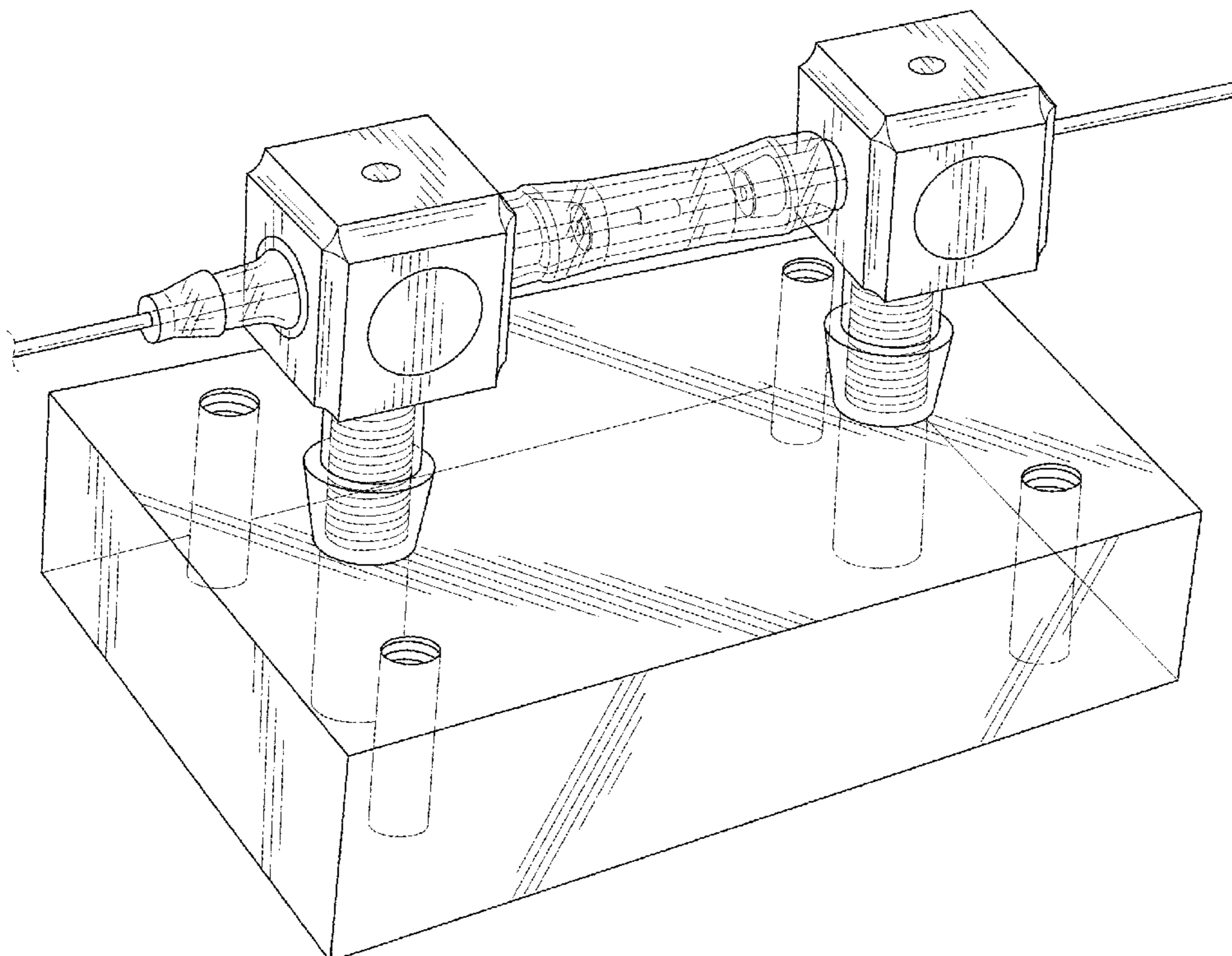
FIG. 5 is a left side view of FIG. 1;

FIG. 6 is a top view of FIG. 1; and,

FIG. 7 is a bottom view of FIG. 1.

The broken lines represent unclaimed subject matter and form no part of the claimed design.

1 Claim, 6 Drawing Sheets



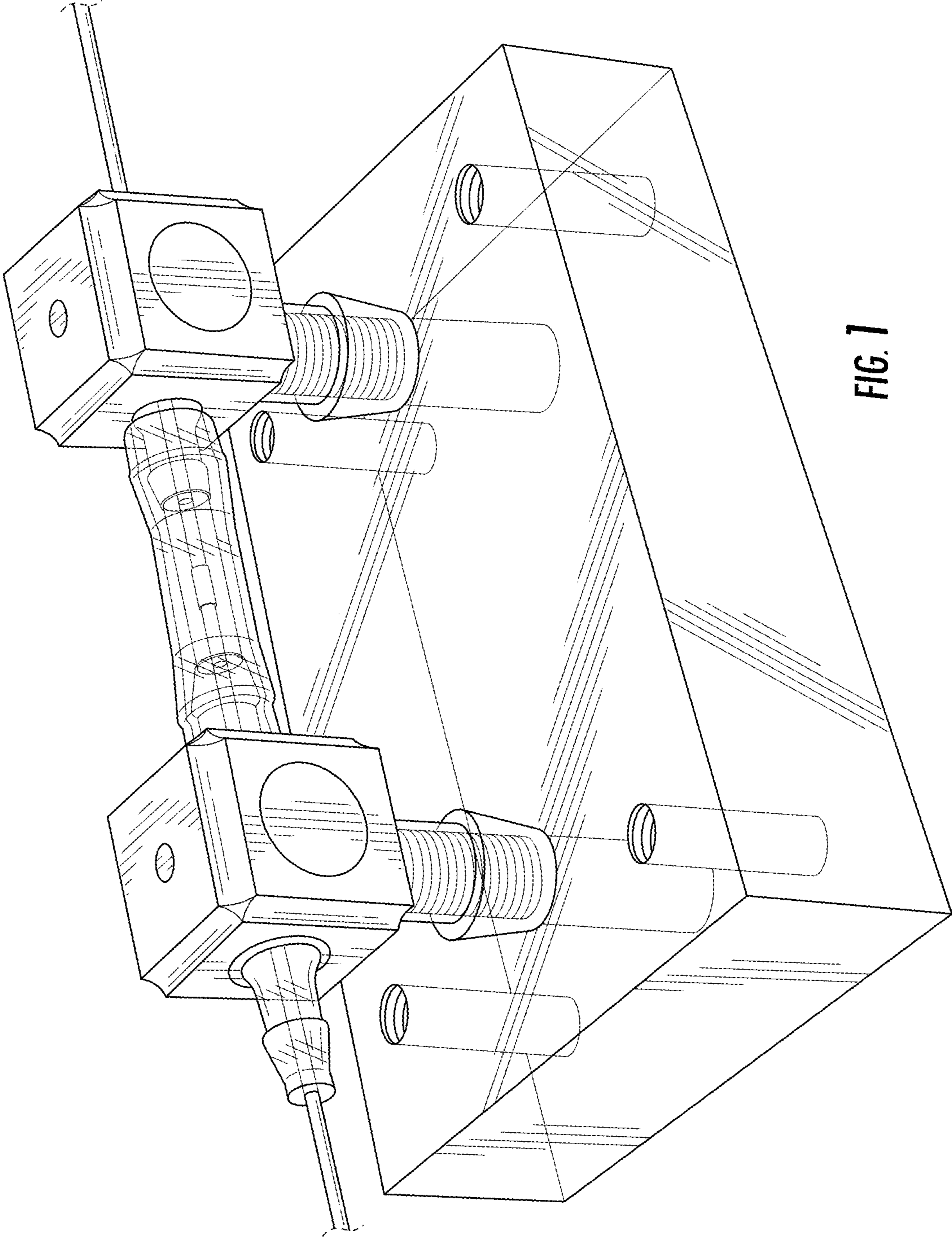


FIG. 1

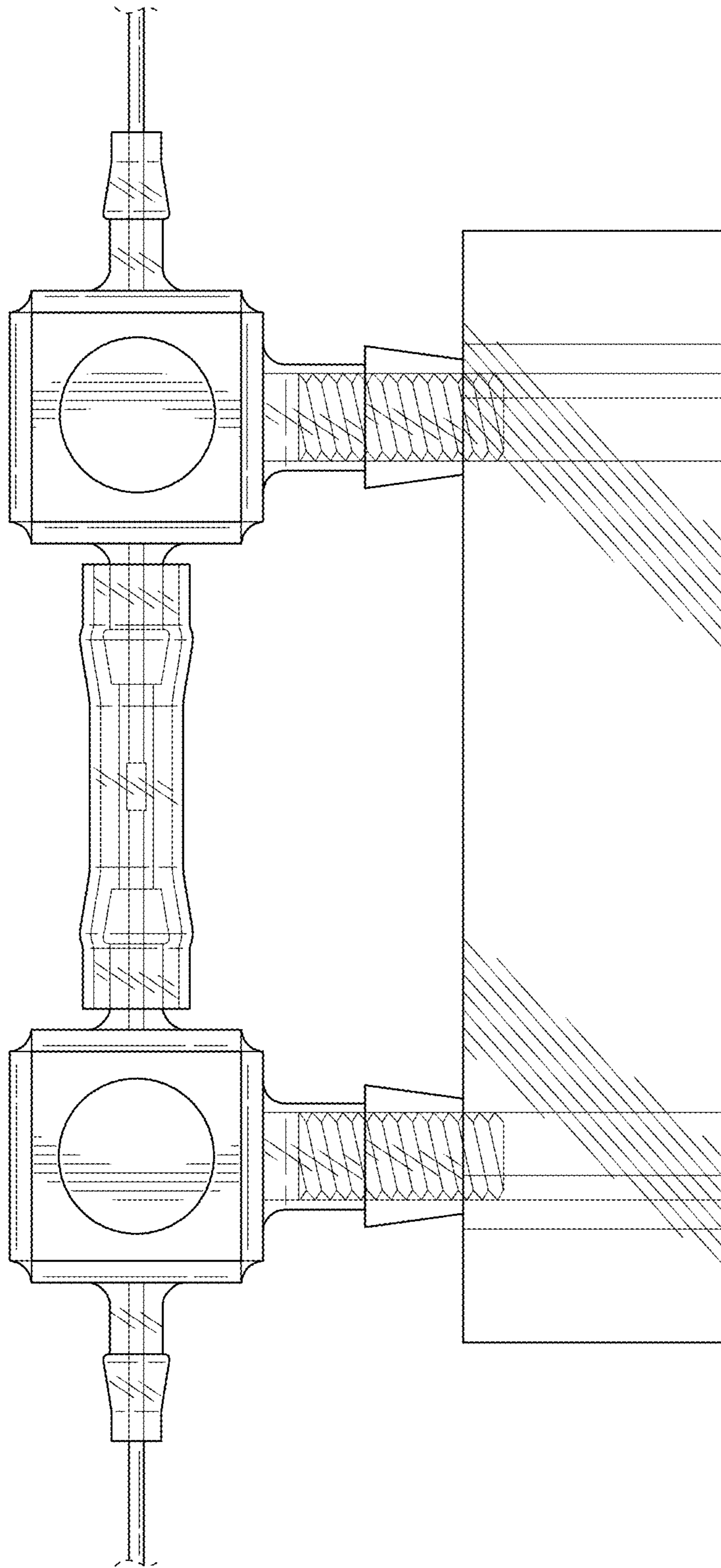


FIG. 2

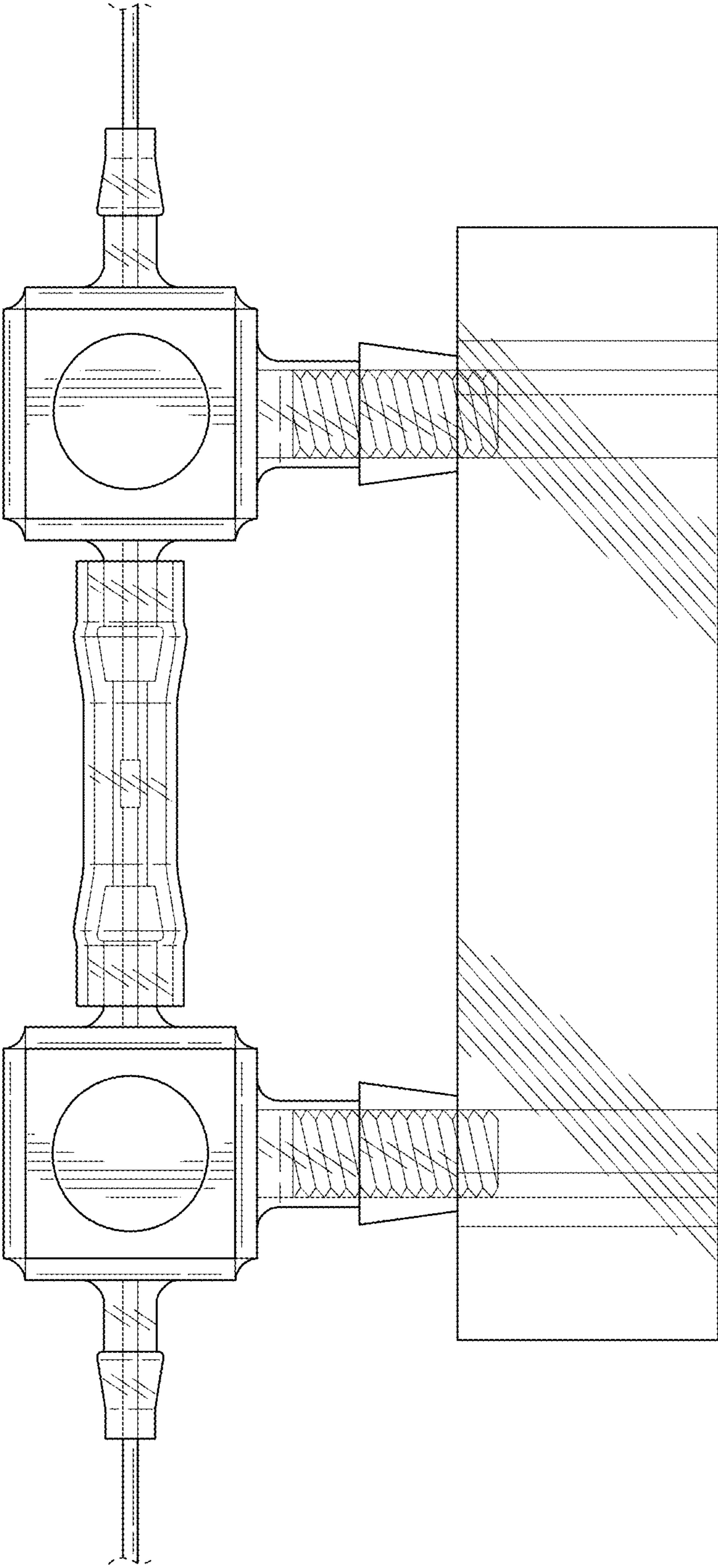


FIG. 3

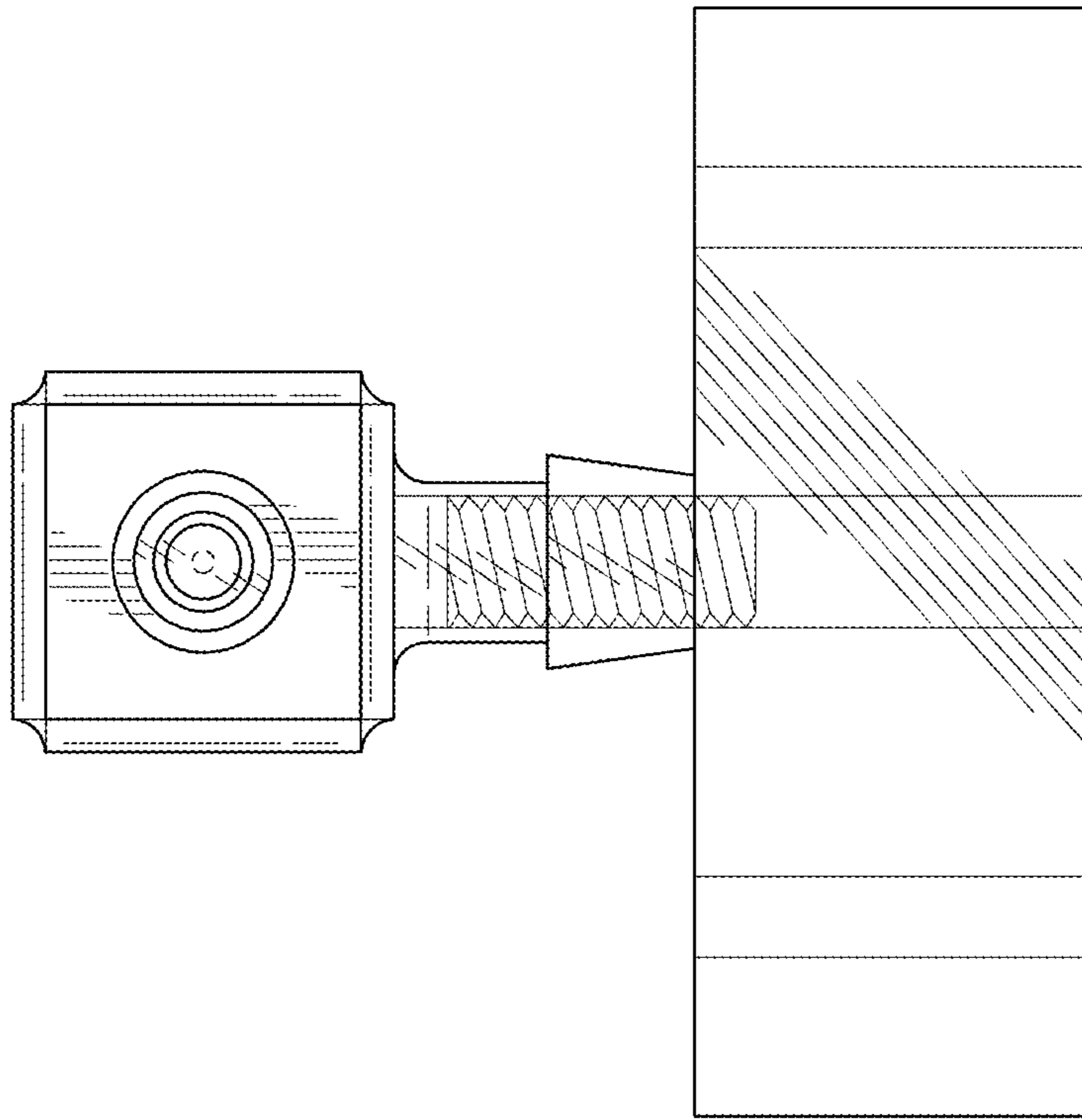


FIG. 5

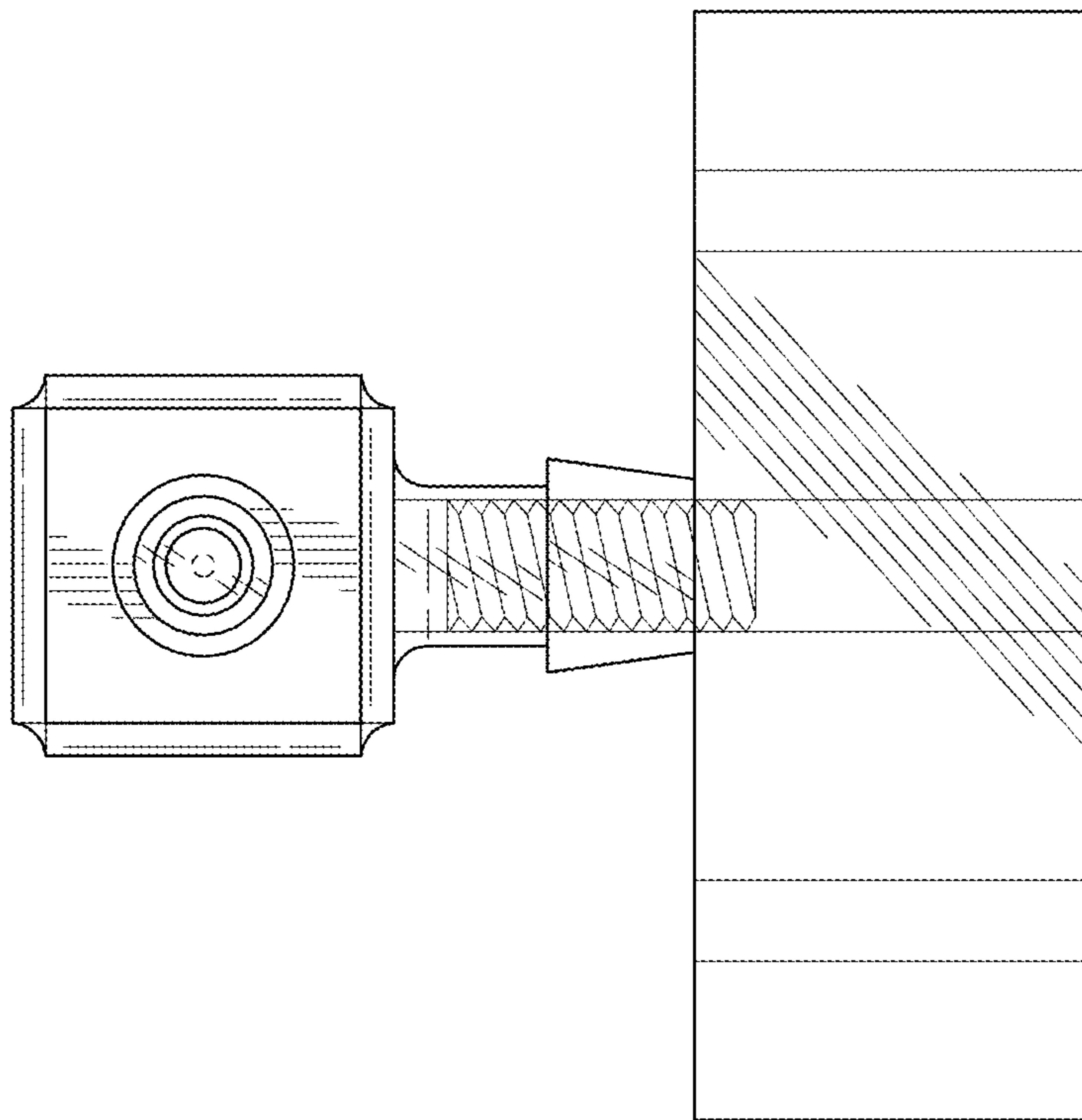


FIG. 4

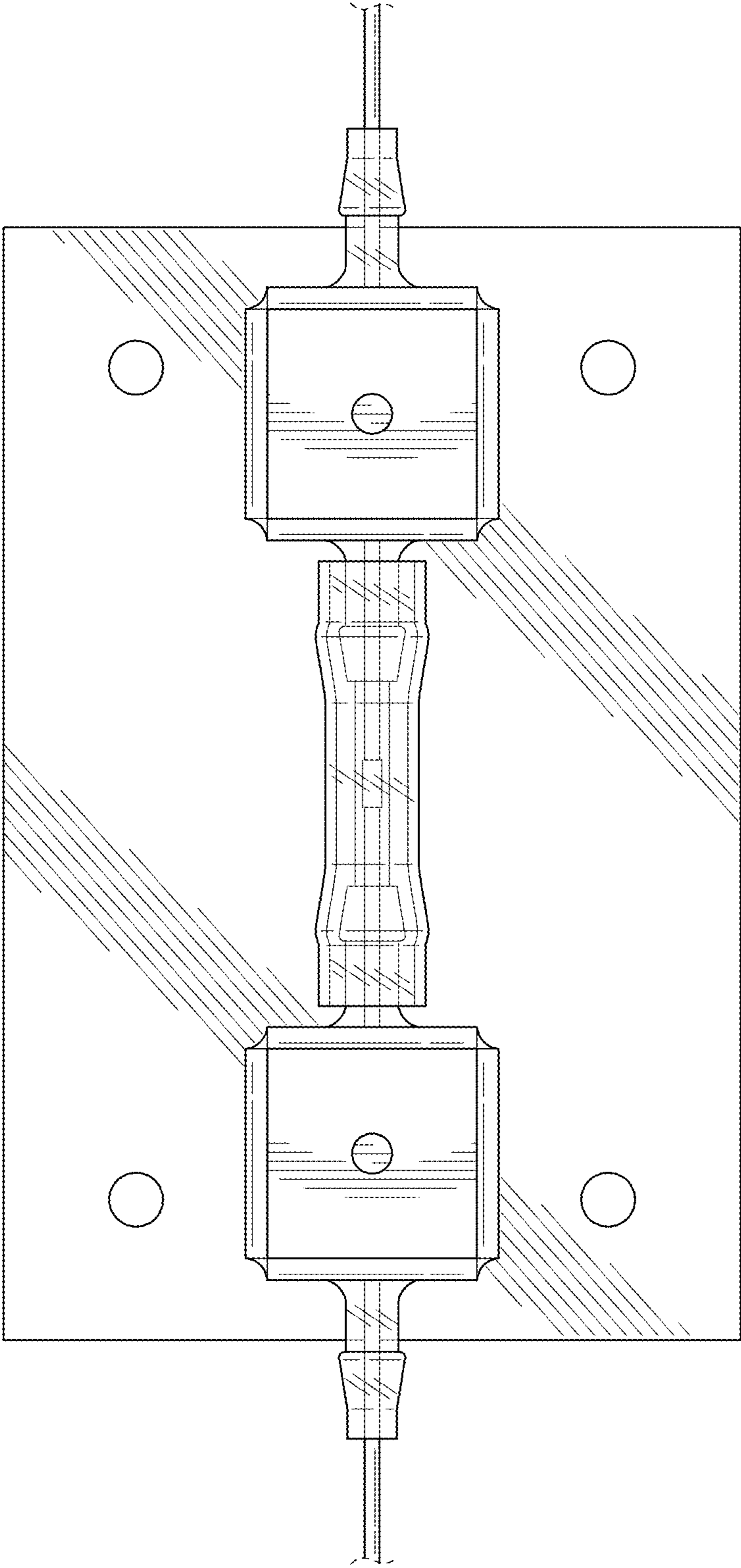


FIG. 6

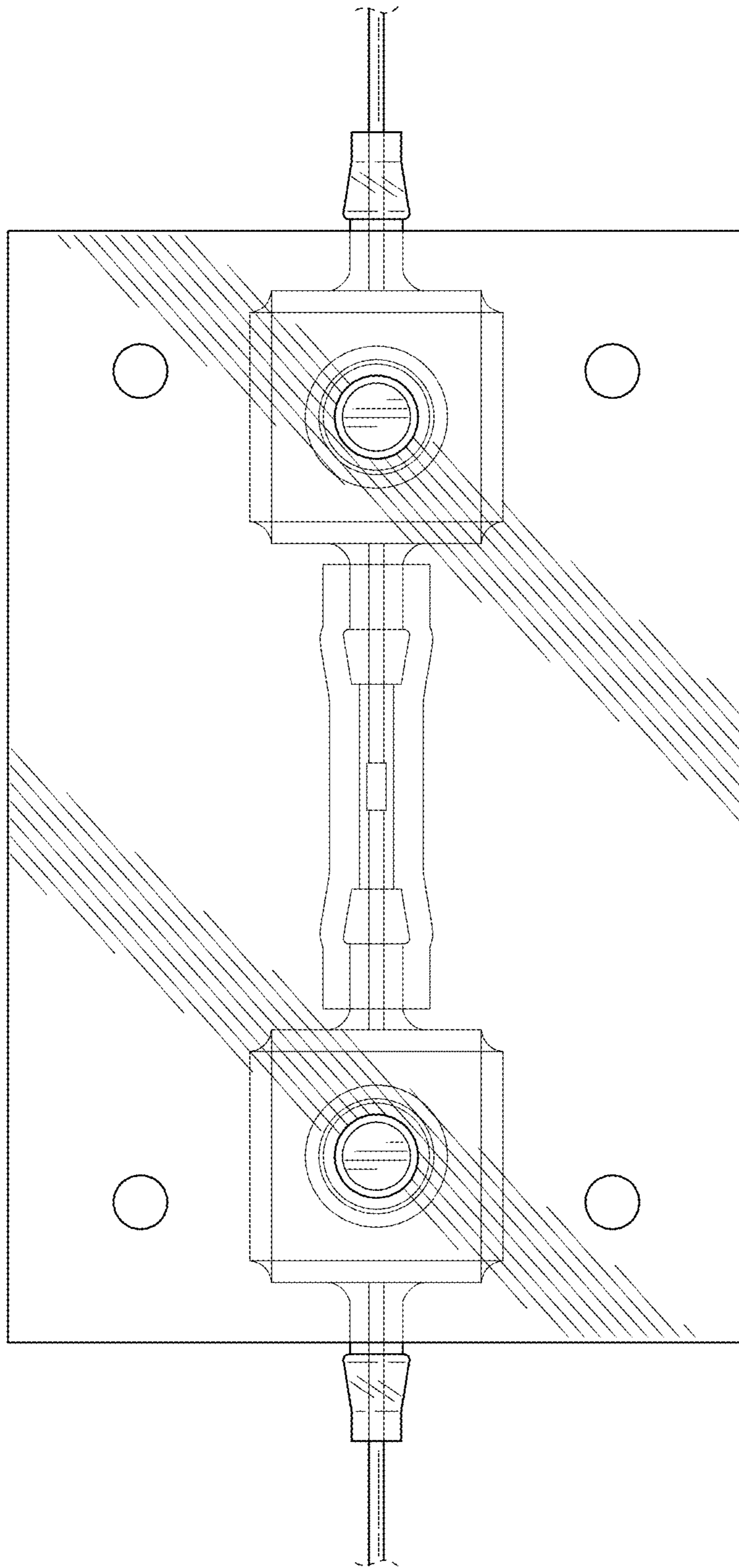


FIG. 7