



US00D916609S

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

(10) **Patent No.:** **US D916,609 S**
(45) **Date of Patent:** **** Apr. 20, 2021**

(54) **AIR INJECTION HEAD FOR PREVENTING ERROR DETECTION OF PHOTOELECTRIC SENSOR**

(71) Applicant: **OMRON Corporation**, Kyoto (JP)

(72) Inventors: **Hiroataka Nakashima**, Fukuchiyama (JP); **Jumpei Nakamura**, Ayabe (JP)

(73) Assignee: **OMRON Corporation**, Kyoto (JP)

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

(21) Appl. No.: **29/693,756**

(22) Filed: **Jun. 5, 2019**

(30) **Foreign Application Priority Data**

Apr. 1, 2019 (JP) 2019-007082 U

(51) **LOC (13) Cl.** **10-04**

(52) **U.S. Cl.**
USPC **D10/103**

(58) **Field of Classification Search**
USPC D10/103

CPC G01B 11/00; G01B 11/002; G01B 11/005; G01B 11/007; G01B 11/02; G01B 11/022; G01B 11/024; G01B 11/026; G01B 11/028; G01B 11/03; G01B 11/04; G01B 11/043; G01B 11/046; G01B 11/06; G01B 11/0608; G01B 11/0616; G01B 11/0625; G01B 11/0633; G01B 11/0641; G01B 11/065; G01B 11/0658; G01B 11/0666; G01B 11/0675; G01B 11/0683; G01B 11/0691; G01B 11/08; G01B 11/10; G01B 11/105; G01B 11/12; G01B 11/14; G01B 11/16; G01B 11/161; G01B 11/162; G01B 11/164; G01B 11/165; G01B 11/167; G01B 11/18; G01B 11/20; G01B 11/22; G01B 11/24; G01B 11/2408; G01B 11/2416; G01B 11/2425; G01B 11/2433; G01B 11/2441; G01B 11/245; G01B 11/25; G01B 11/2504; G01B 11/2509; G01B 11/2513; G01B 11/2518; G01B 11/2522; G01B 11/2527; G01B 11/2531; G01B 11/2536; G01B 11/254; G01B 11/2545; G01B

11/255; G01B 11/26; G01B 11/27; G01B 11/272; G01B 11/275; G01B 11/2755; G01B 11/28; G01B 11/285; G01B 11/30; G01B 11/303; G01B 11/306; G01J 1/00; G01J 1/02; G01J 1/0204; G01J 1/0209; G01J 1/0214; G01J 1/0219; G01J 1/0223; G01J 1/0228; G01J 1/0233; G01J 1/0238; G01J 1/0242; G01J 1/0247; G01J 1/0252; G01J 2001/0257; G01J 2001/0261; G01J 1/0266; G01J 1/0271; G01J 2001/028; G01J 2001/0285; G01J 1/029; G01J 1/0295; G01J 1/18; G01J

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

4,166,834 A * 9/1979 Reed B01J 8/0278
239/558

* cited by examiner

Primary Examiner — Antoine Duval Davis

(74) *Attorney, Agent, or Firm* — Capitol City TechLaw

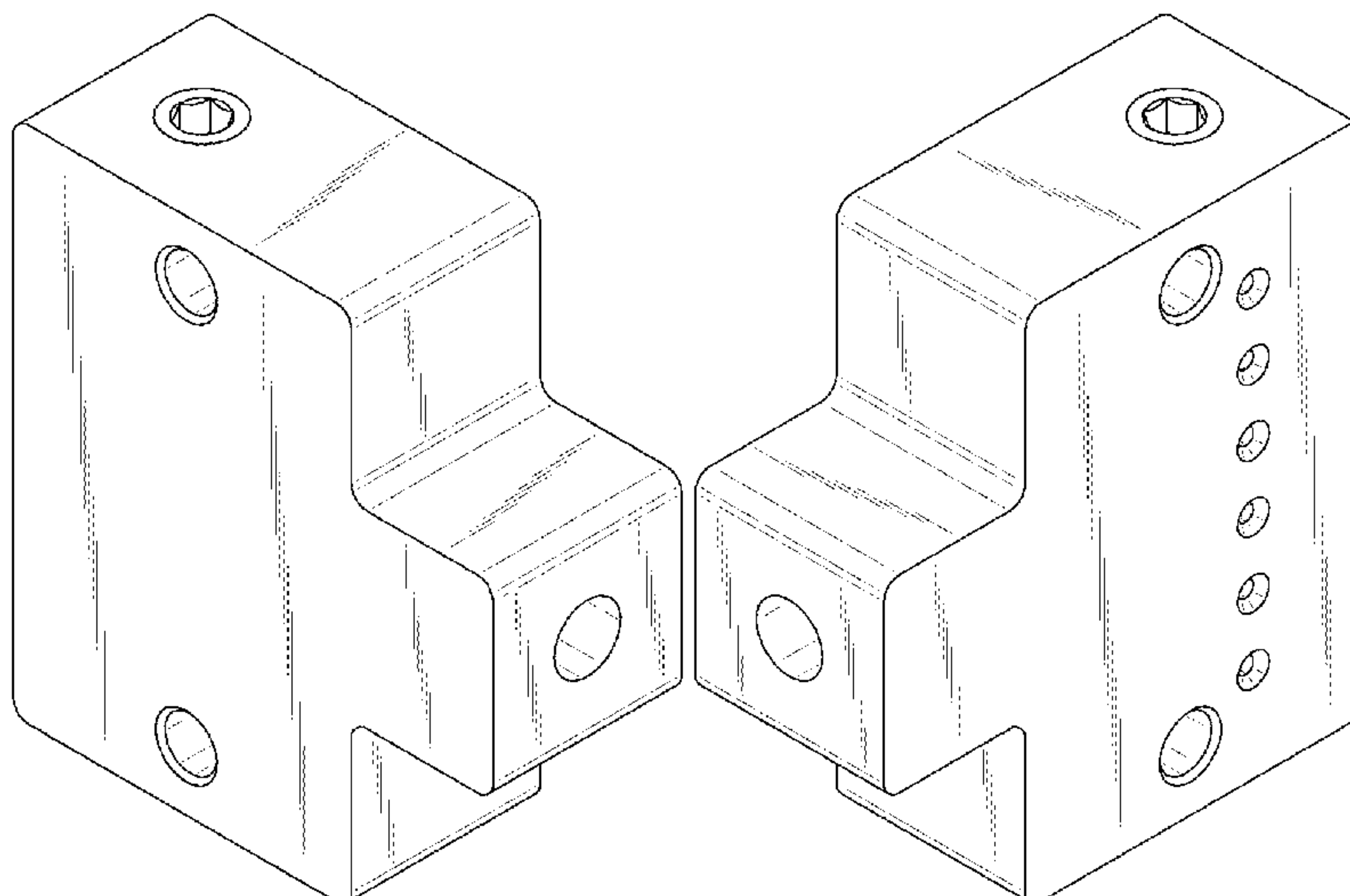
(57) **CLAIM**

The ornamental design for an air injection head for preventing error detection of photoelectric sensor, as shown.

DESCRIPTION

FIG. 1 is a front, top, and right side perspective view of an air injection head for preventing error detection of photoelectric sensor showing our new design; FIG. 2 is a rear, top, and right side perspective view thereof; FIG. 3 is a front view thereof; FIG. 4 is a rear view thereof; FIG. 5 is a left side view thereof; FIG. 6 is a right side view thereof; FIG. 7 is a top view thereof; and, FIG. 8 is a bottom view thereof.

1 Claim, 4 Drawing Sheets



(58) **Field of Classification Search**

CPC .. 1/16; G01V 8/00; G01V 8/005; G01V 8/02;
G01V 8/10; G01V 8/12; G01V 8/14;
G01V 8/16; G01V 8/18; G01V 8/20;
G01V 8/22; G01V 8/24; G01V 8/26;
H03K 2014/9634; H03K 17/9629; H03K
17/9631; H03K 17/9636; H03K 17/9638;
H03K 2017/9634; H01L 31/153; H01L
31/02322; H01L 31/0232; H01L
31/02325; H01L 31/02327; H01L
31/0203; G01S 17/04; G01S 7/4813

See application file for complete search history.

Fig. 1

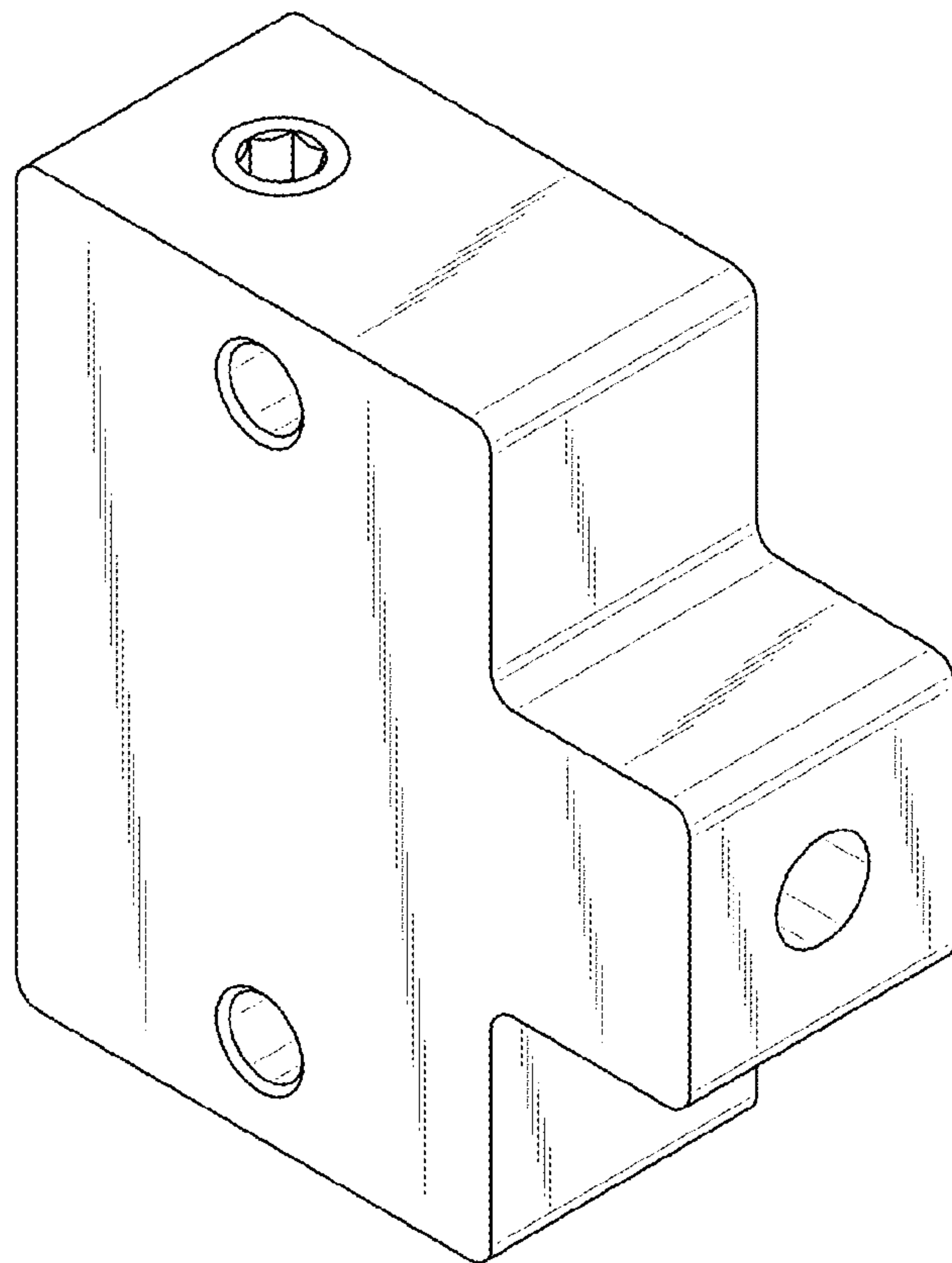


Fig. 2

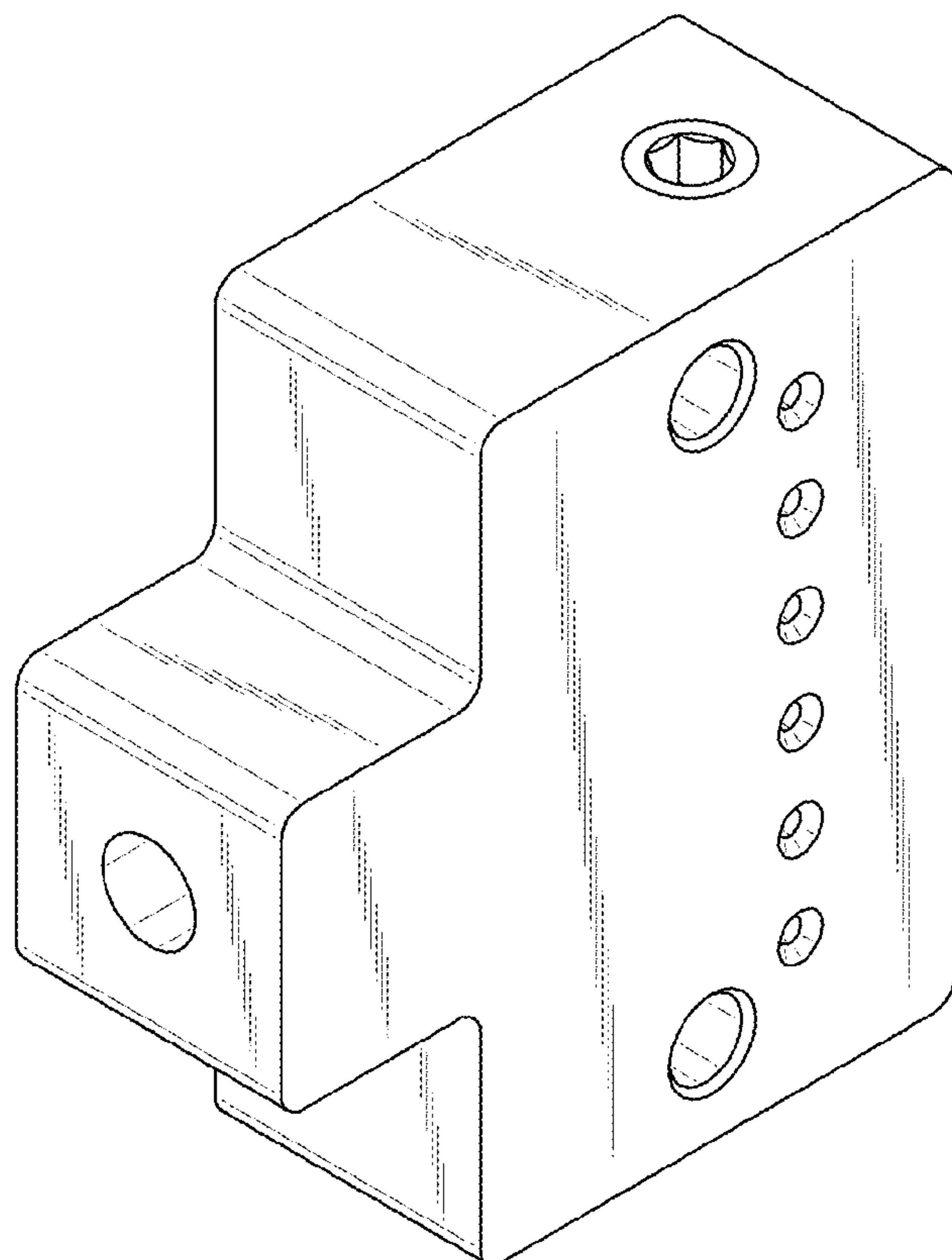


Fig. 3

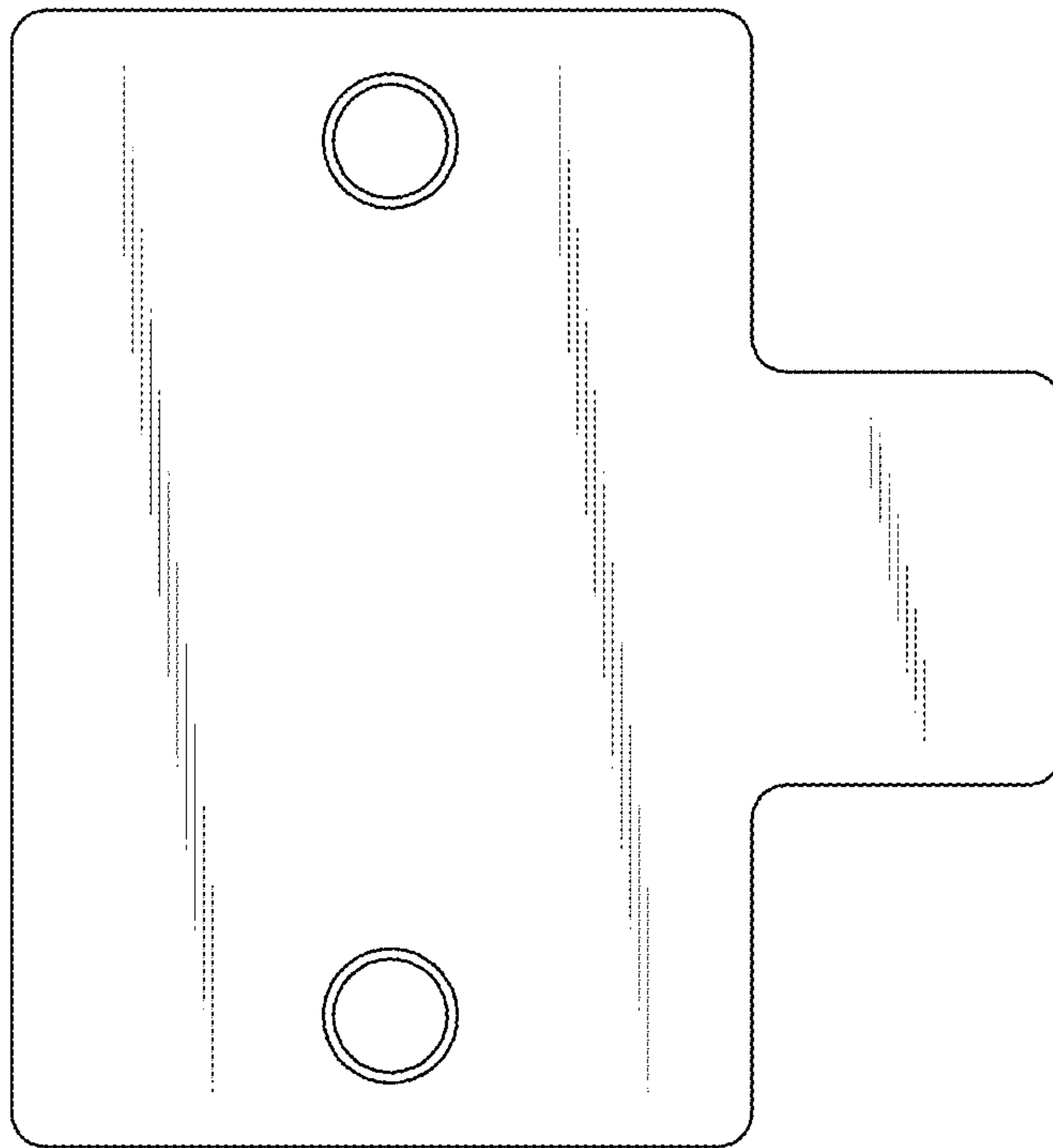


Fig. 4

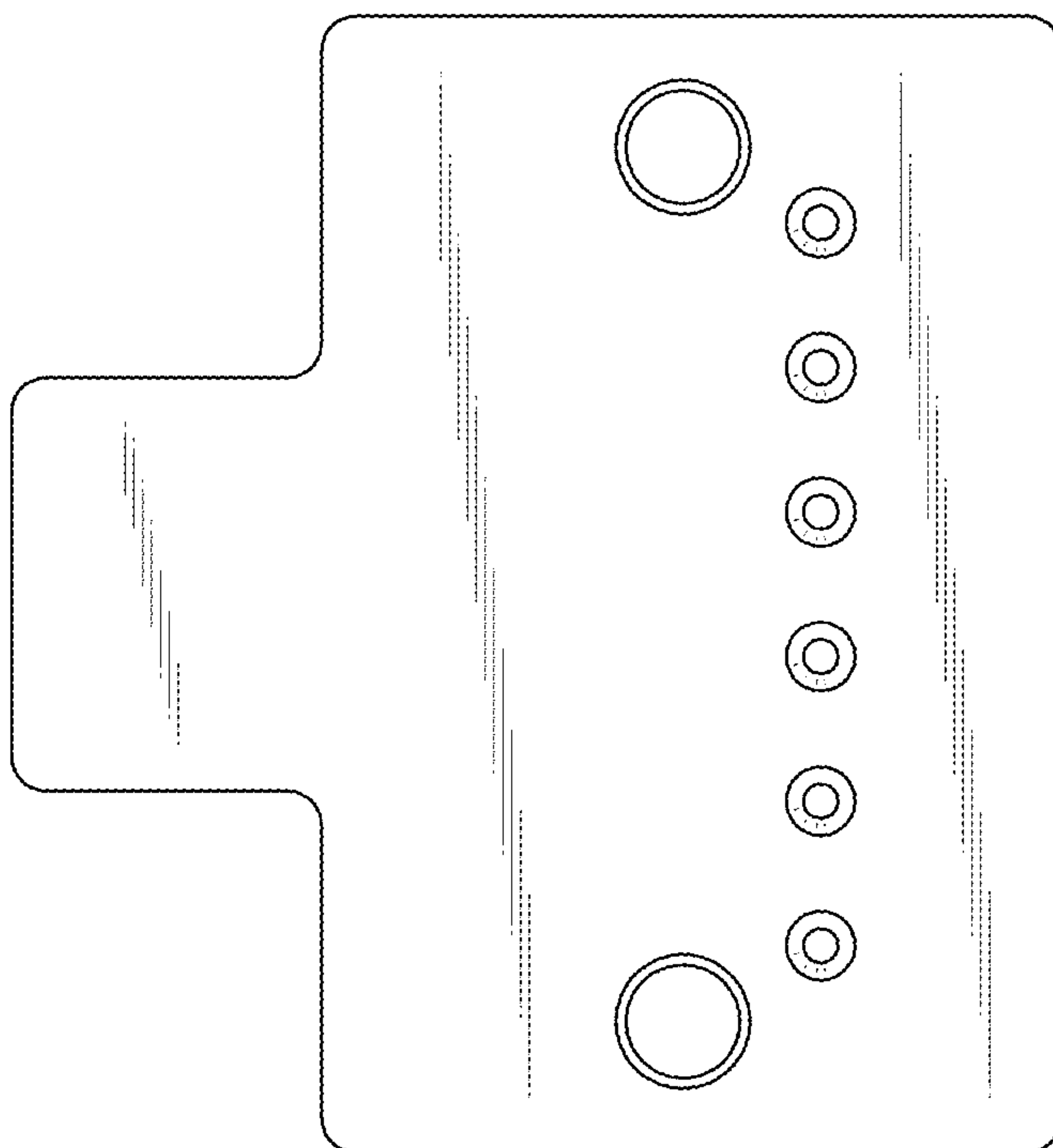


Fig. 5

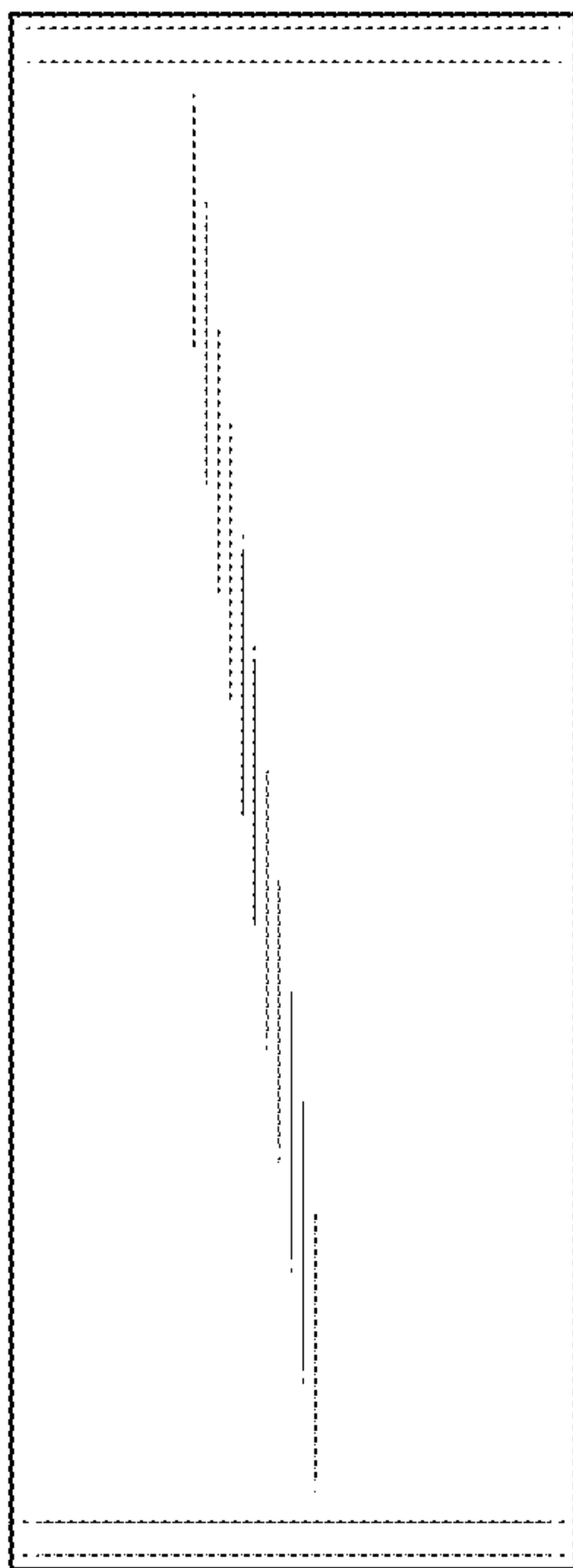


Fig. 6

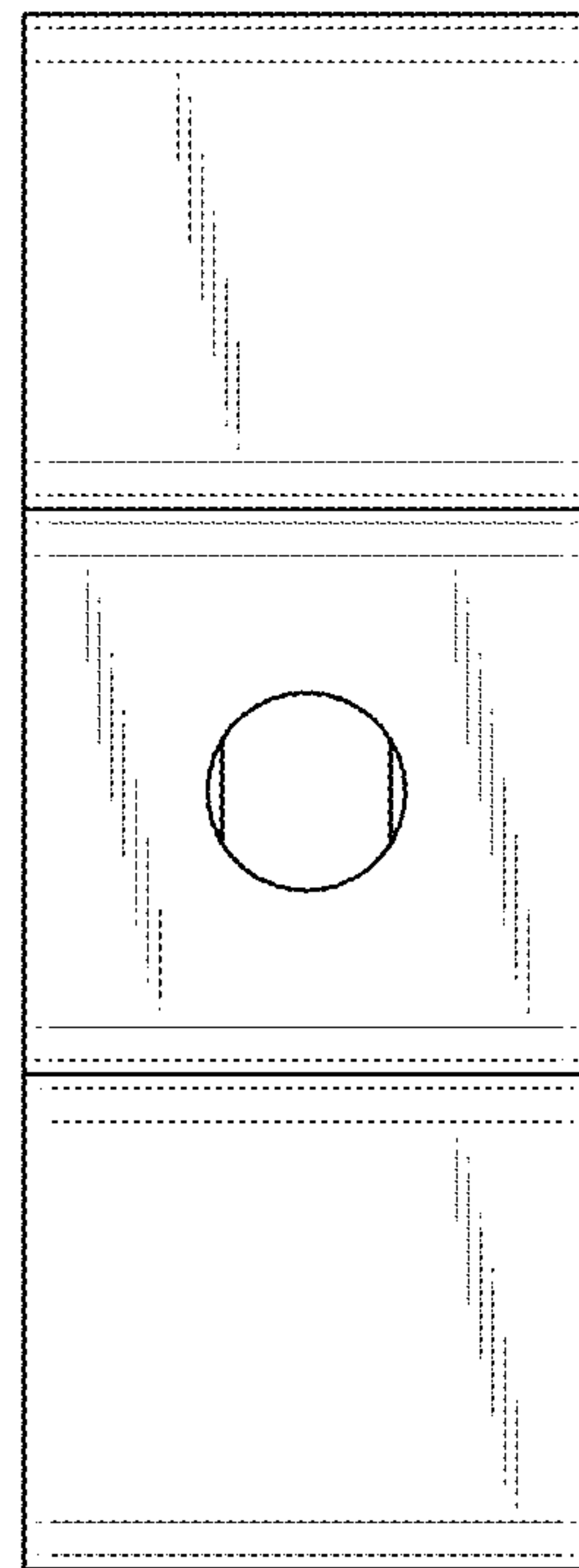


Fig. 7

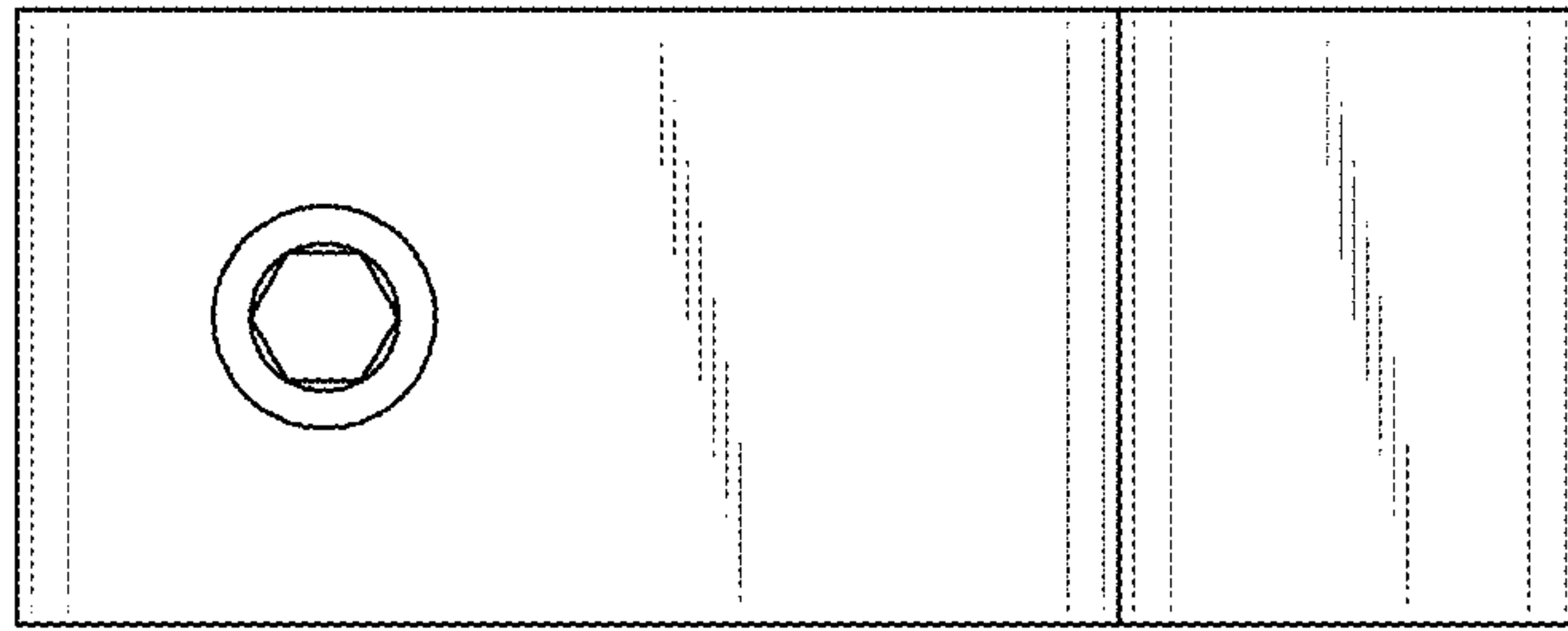


Fig. 8

