



US00D893569S

(12) **United States Design Patent** (10) **Patent No.:** **US D893,569 S**
Schick et al. (45) **Date of Patent:** **** Aug. 18, 2020**

- (54) **NOZZLE FOR AN ADDITIVE MANUFACTURING MACHINE**
- (71) Applicant: **General Electric Company**, Schenectady, NY (US)
- (72) Inventors: **David Edward Schick**, Greenville, SC (US); **Srikanth Chandrudu Kottilingam**, Greenville, SC (US); **Steven John Barnell**, Pelzer, SC (US)
- (73) Assignee: **General Electric Company**, Schenectady, NY (US)
- (**) Term: **15 Years**
- (21) Appl. No.: **29/613,324**
- (22) Filed: **Aug. 9, 2017**
- (51) **LOC (12) Cl.** **15-09**
- (52) **U.S. Cl.**
USPC **D15/144.1**
- (58) **Field of Classification Search**
USPC D7/213, 300, 312, 316, 392, 397, 398, D7/589; D15/122, 135, 144, 144.1, D15/144.2, 199; D23/335, 354, 361
CPC B29C 67/0085; B33Y 30/00; B33Y 40/00
See application file for complete search history.

- D847,962 S * 5/2019 Shin D23/351
- D861,747 S * 10/2019 Grip D15/122
- D861,748 S * 10/2019 Chen D15/122
- D861,749 S * 10/2019 Besim D15/122
- D870,164 S * 12/2019 Wurmfeld D15/122
- 2011/0168092 A1* 7/2011 Clark B05D 1/30 118/641

(Continued)

FOREIGN PATENT DOCUMENTS

WO 2015189619 A1 12/2015

OTHER PUBLICATIONS

International Search Report issued in connection with corresponding PCT Application No. US/2018/044977 on Dec. 18, 2018, 3 pages.

(Continued)

Primary Examiner — Michael C Stout
Assistant Examiner — Fritzgerald L Butac
(74) *Attorney, Agent, or Firm* — James Pemrick; Hoffman Warnick LLC

(57) **CLAIM**

The ornamental design for a nozzle for an additive manufacturing machine, as shown and described.

DESCRIPTION

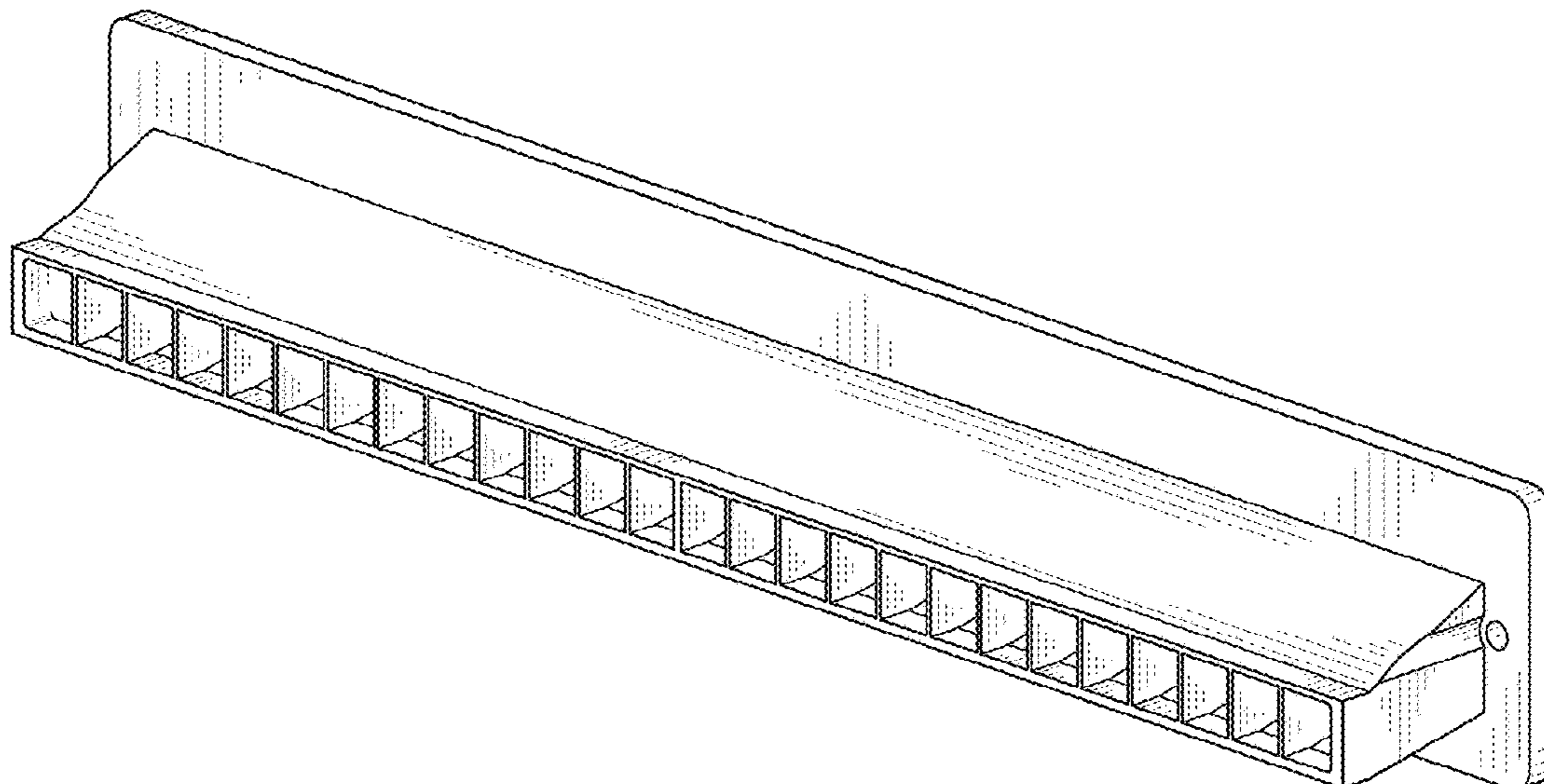
FIG. 1 is a top, rear perspective view of a nozzle for an additive manufacturing machine;
FIG. 2 is top, front perspective view thereof;
FIG. 3 is a rear view thereof;
FIG. 4 is a front view thereof;
FIG. 5 is a top view thereof;
FIG. 6 is a bottom view thereof;
FIG. 7 is a side view thereof; and,
FIG. 8 is a side, cross-sectional view, taken along the line 8-8 in FIG. 3.

1 Claim, 3 Drawing Sheets

(56) **References Cited**

U.S. PATENT DOCUMENTS

- D457,538 S * 5/2002 Gressett, Jr. D15/144
- D461,483 S * 8/2002 Gressett, Jr. D15/144.1
- D550,261 S * 9/2007 Bondeson D15/144
- D588,617 S * 3/2009 Burmester D15/144
- D671,970 S * 12/2012 Saine D15/144.1
- D673,594 S * 1/2013 Ganzer D15/144.1
- D685,829 S * 7/2013 Ganzer D15/144.1
- D736,366 S * 8/2015 Picco D23/386
- D754,830 S * 4/2016 Huang D23/351
- D758,453 S * 6/2016 Ito D15/10
- D815,670 S * 4/2018 Terabe D15/135



(56)

References Cited

U.S. PATENT DOCUMENTS

2013/0068161 A1* 3/2013 White C23C 16/45578
118/723 R
2015/0174823 A1* 6/2015 Wiesner B29C 64/153
264/497
2016/0136731 A1* 5/2016 McMurtry B29C 64/371
419/53
2017/0087635 A1* 3/2017 Wilkes B29C 64/153
2017/0144223 A1* 5/2017 Gold B28B 17/0081
2018/0126460 A1 5/2018 Murphree et al.

OTHER PUBLICATIONS

U.S. Appl. No. 15/672,729, Office Action dated Feb. 3, 2020, 14 pages.

* cited by examiner

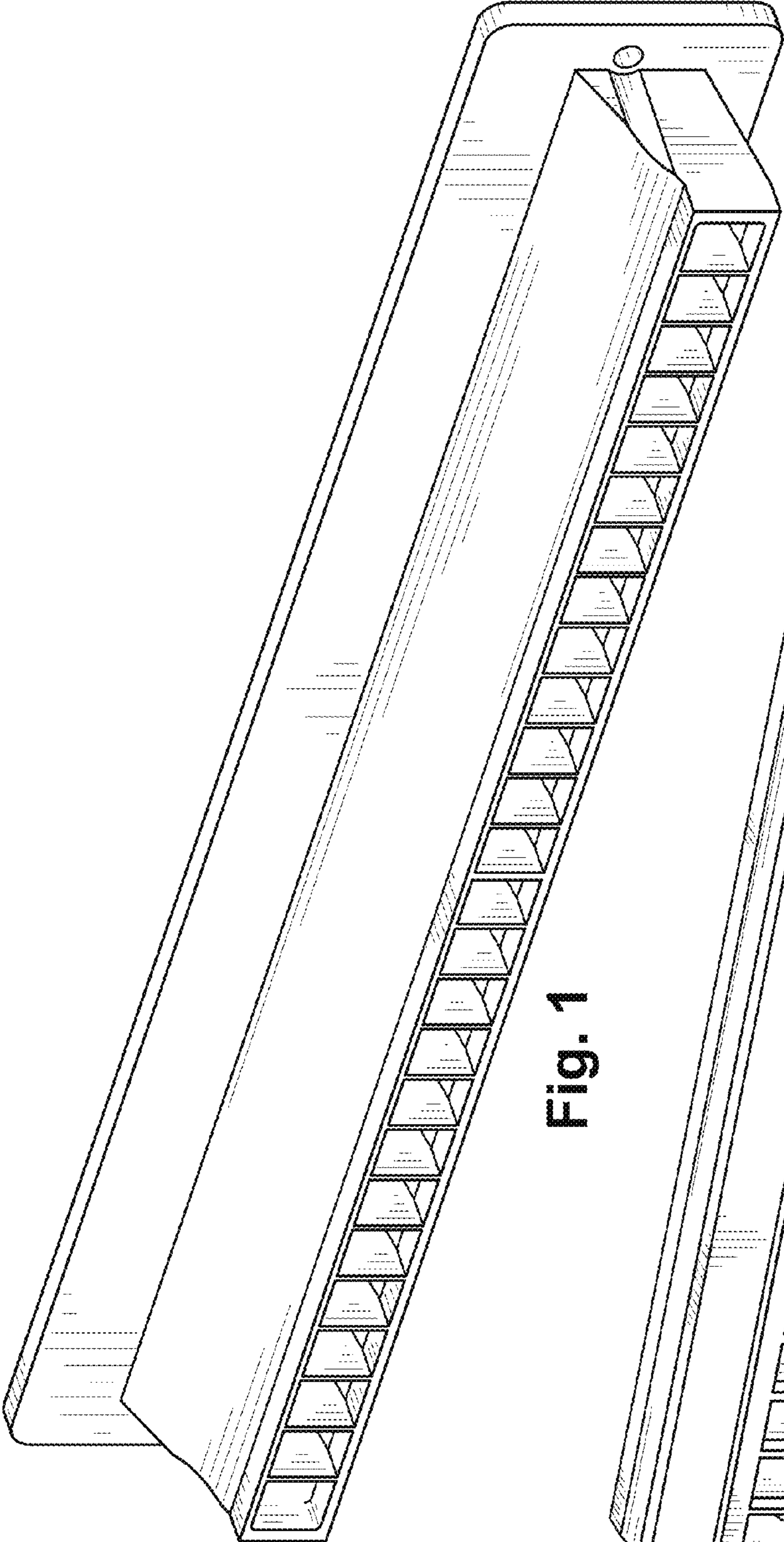


Fig. 1

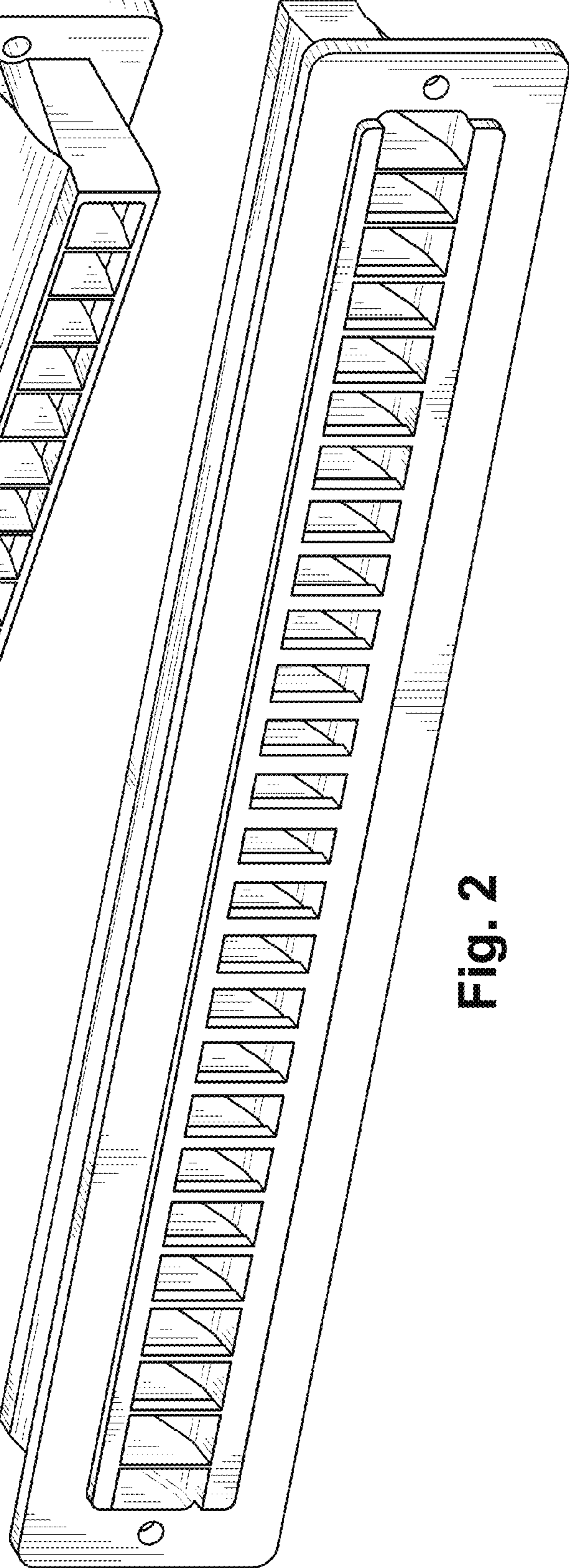


Fig. 2

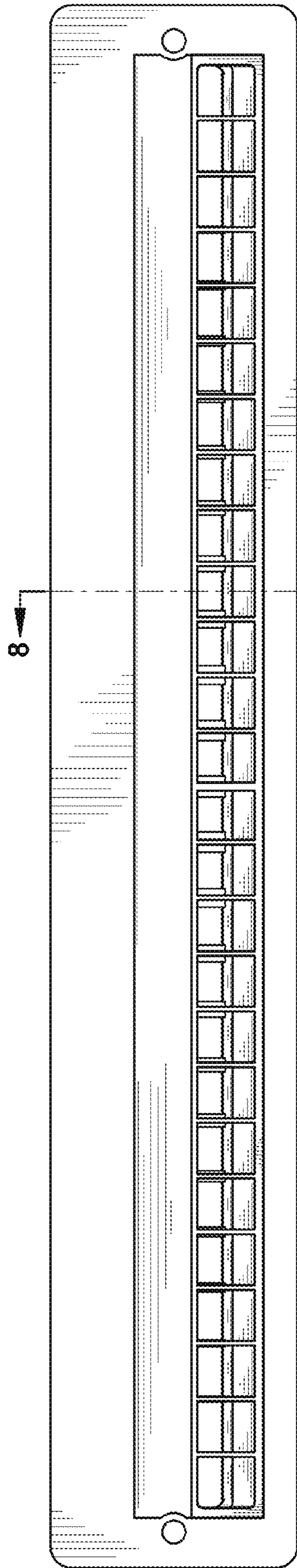


Fig. 3

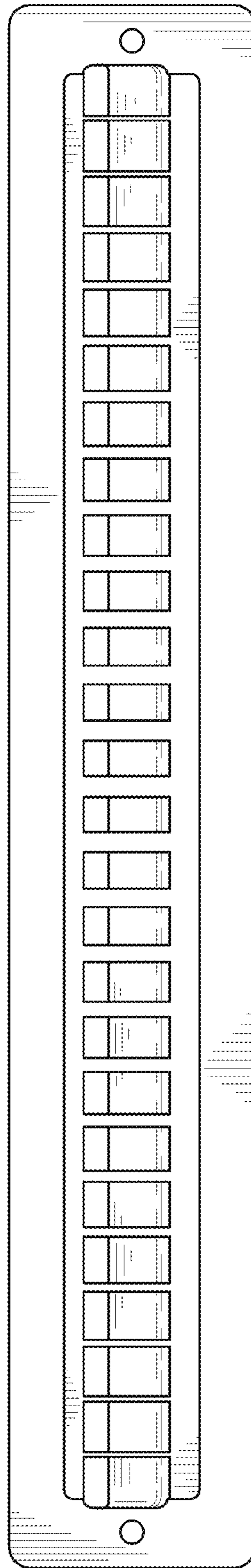


Fig. 4

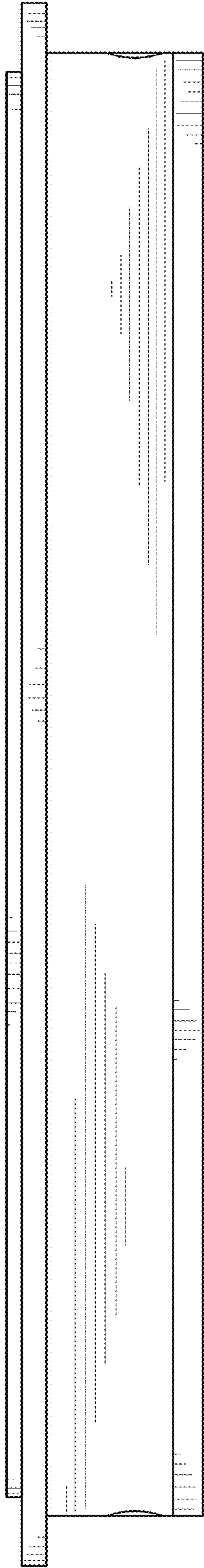


Fig. 5

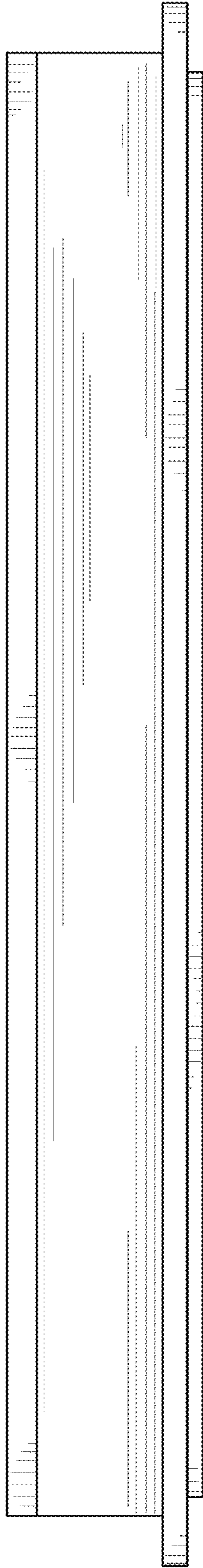


Fig. 6

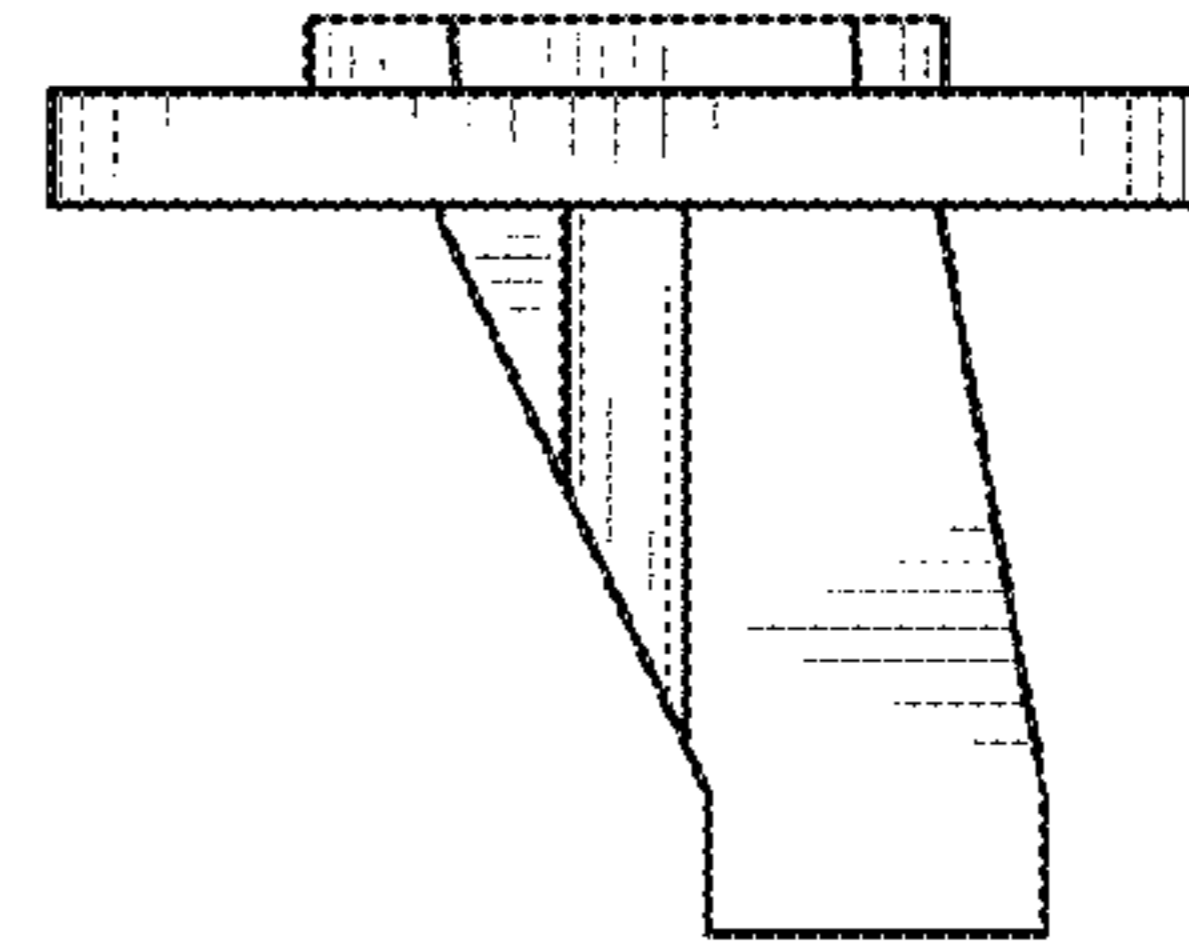


Fig. 7

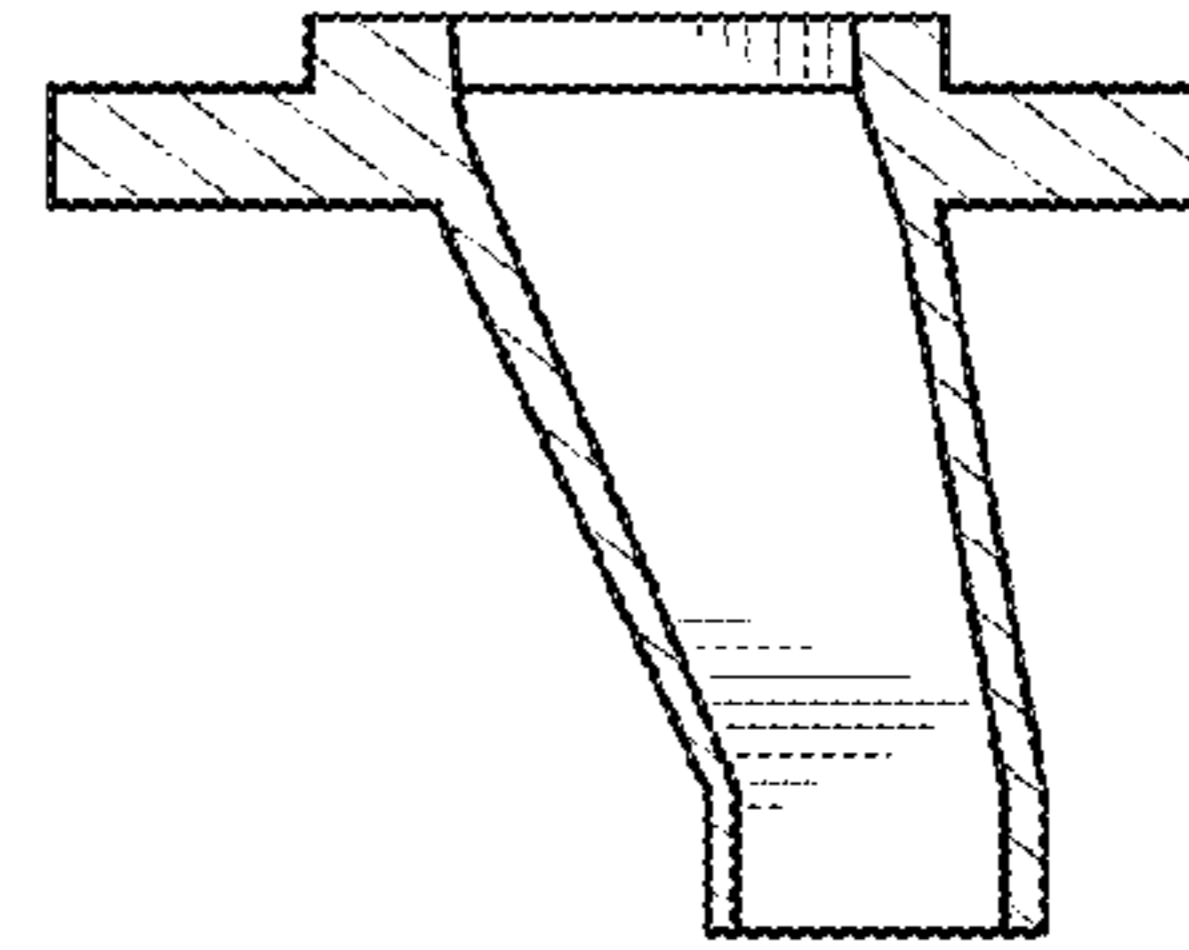


Fig. 8