



US00D938503S

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

(10) **Patent No.: US D938,503 S**

(45) **Date of Patent: ** Dec. 14, 2021**

- (54) **RIPPER FOR GRANULATING MACHINE**
- (71) Applicant: **Rapid Granulator AB**, Bredaryd (SE)
- (72) Inventors: **Magnus Blom**, Värnamo (SE); **Henrik Karlsson**, Värnamo (SE)
- (73) Assignee: **RAPID GRANULATOR AB**, Bredaryd (SE)

7,534,278 B2 * 5/2009 Consoli B01D 46/0068
55/294
7,753,296 B2 * 7/2010 Makino B01J 2/16
241/38
7,802,376 B2 * 9/2010 Huttlin A61K 36/25
34/90
7,922,798 B2 * 4/2011 Consoli B01J 2/16
96/229

(Continued)

- (**) Term: **15 Years**
- (21) Appl. No.: **29/723,387**
- (22) Filed: **Feb. 6, 2020**

(30) **Foreign Application Priority Data**

Aug. 21, 2019 (EM) 006747721

(51) **LOC (13) Cl.** **15-09**

(52) **U.S. Cl.**
USPC **D15/139; D8/70**

(58) **Field of Classification Search**
USPC D8/20, 86, 70; D15/28, 123, 126, 131,
D15/138, 159, 140

CPC B23B 27/1611; B23C 3/05; B23C 5/24;
B23C 5/109; B23C 5/207

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

- 3,289,273 A * 12/1966 Artaud F16B 35/00
407/101
- 3,559,705 A * 2/1971 Salzmann, Jr. B27L 11/005
144/162.1
- 4,674,198 A * 6/1987 Huttlin A61J 3/005
34/135
- 5,224,656 A * 7/1993 Kobayashi B01J 2/10
241/188.2
- 6,641,337 B1 * 11/2003 Rothballer B23B 27/143
407/114
- D559,286 S * 1/2008 Waggle D15/139

OTHER PUBLICATIONS

“Cardboard Shredder EKZ. Shreds it all, with two independent drive systems.” Erdwich., Sep. 13, 2019 [online], [retrieved on Oct. 24, 2021]. Retrieved from the Internet <URL: <https://www.erdwich.com/en/shredding-machines/shredding-machines/cardboard-shredder/ekz-cardboard-shredder/>>.*

(Continued)

Primary Examiner — Darlington Ly

(74) *Attorney, Agent, or Firm* — Tucker Ellis LLP

(57) **CLAIM**

The ornamental design for a ripper for granulating machine, as shown and described.

DESCRIPTION

FIG. 1 is a top, front and left side perspective view of a ripper for granulating machine embodying our new design; FIG. 2 is a rear and right side perspective view thereof; FIG. 3 is top and rear perspective view thereof; FIG. 4 is a front elevation view thereof; FIG. 5 is a rear elevation view thereof; FIG. 6 is a left side elevation view thereof, of which the right side elevation view is a mirror image; and, FIG. 7 is a top plan view thereof, of which the bottom plan view is a mirror image.

The broken lines in the drawings illustrate portions of the ripper for granulating machine that form no part of the claimed design.

1 Claim, 4 Drawing Sheets



(56)

References Cited

U.S. PATENT DOCUMENTS

8,187,512 B2 * 5/2012 Eloo B29C 48/92
264/141
RE46,197 E * 11/2016 Takahashi D15/139
D832,319 S * 10/2018 Muthuswamy D15/139
D867,412 S * 11/2019 Backman D15/139
D897,265 S * 9/2020 Xiao D12/214
D902,968 S * 11/2020 Caliendo D15/139
D910,097 S * 2/2021 Park D15/139
2004/0007115 A1 * 1/2004 Schwaner B23C 5/205
83/835

OTHER PUBLICATIONS

“Slow Speed Shredder Slayer XL.” Edge Innovation at Work., May 23, 2017 [online], [retrieved on Oct. 24, 2021]. Retrieved from the Internet <URL: <https://edgeinnovate.com/products/slayer-slayer-xl/>>.*

* cited by examiner

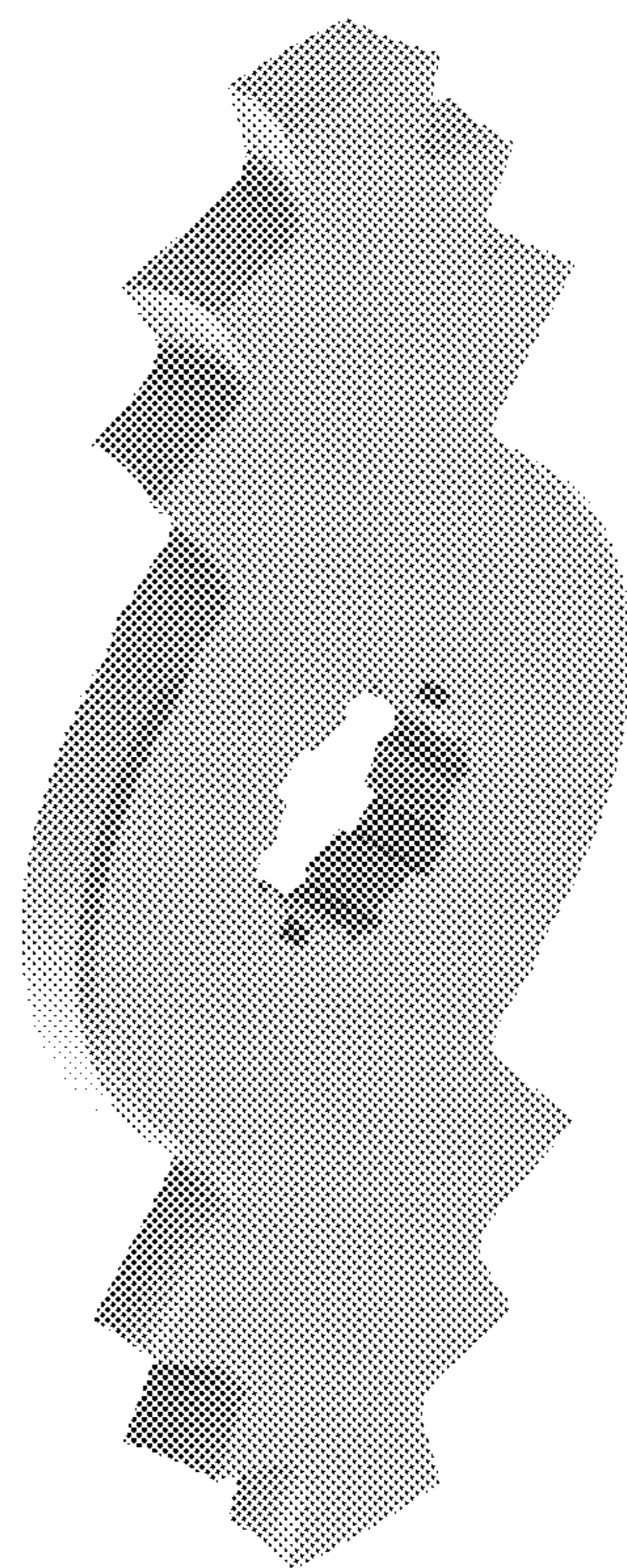


FIG. 1

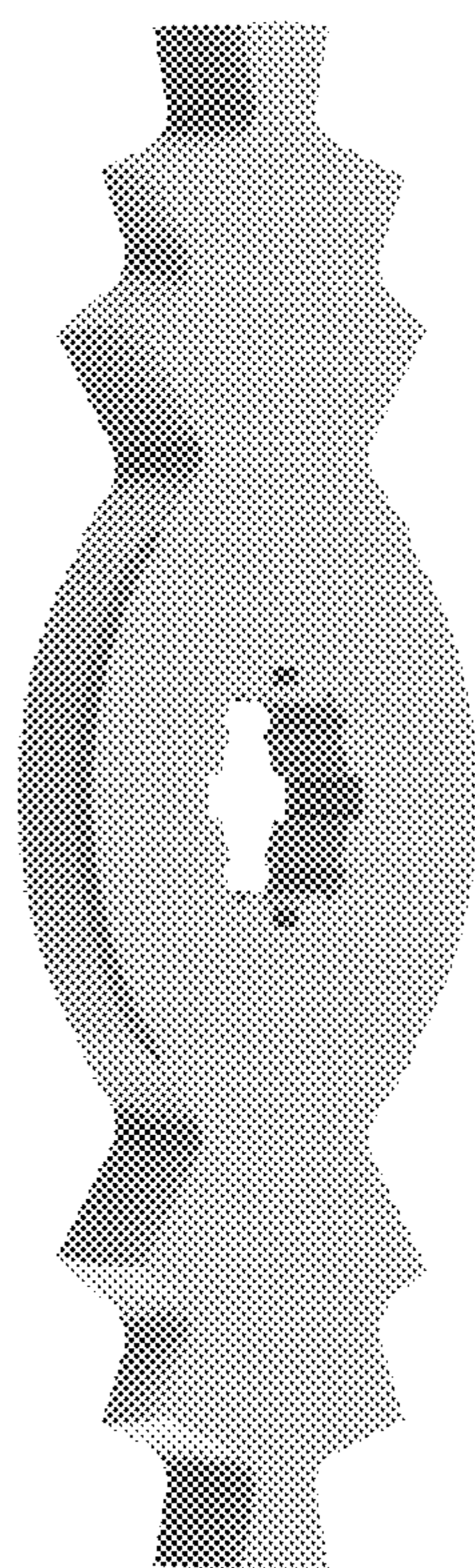


FIG. 2

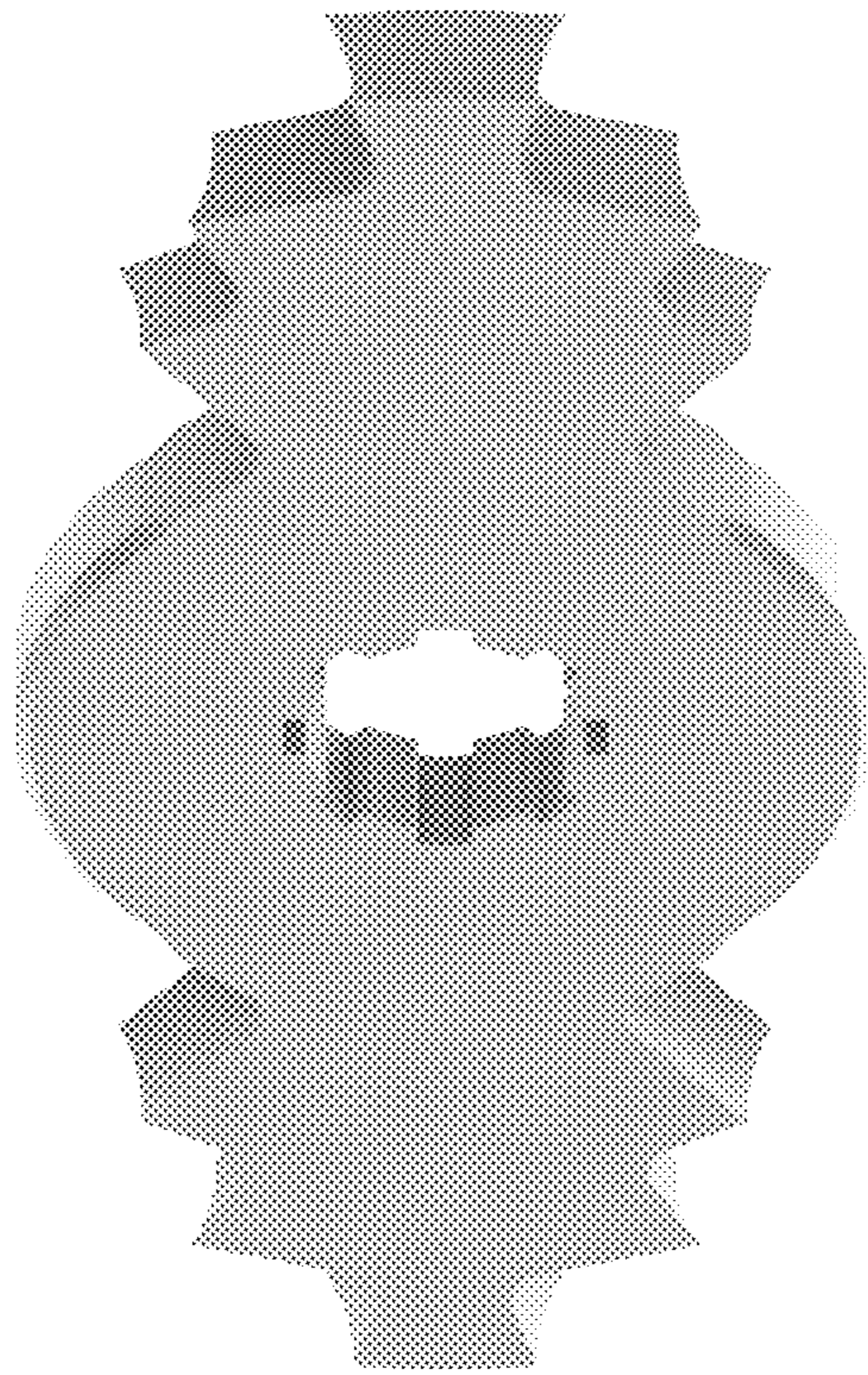


FIG. 3

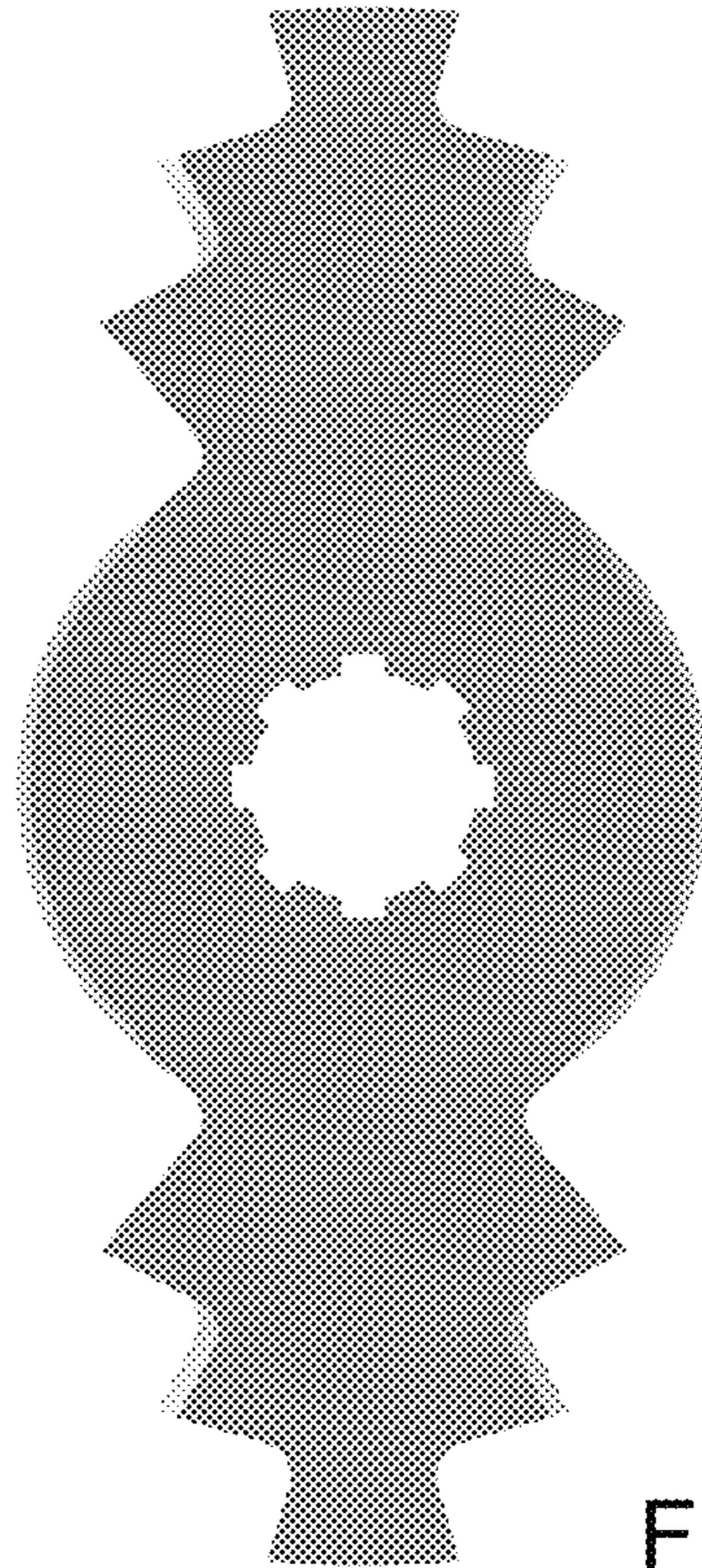


FIG. 4

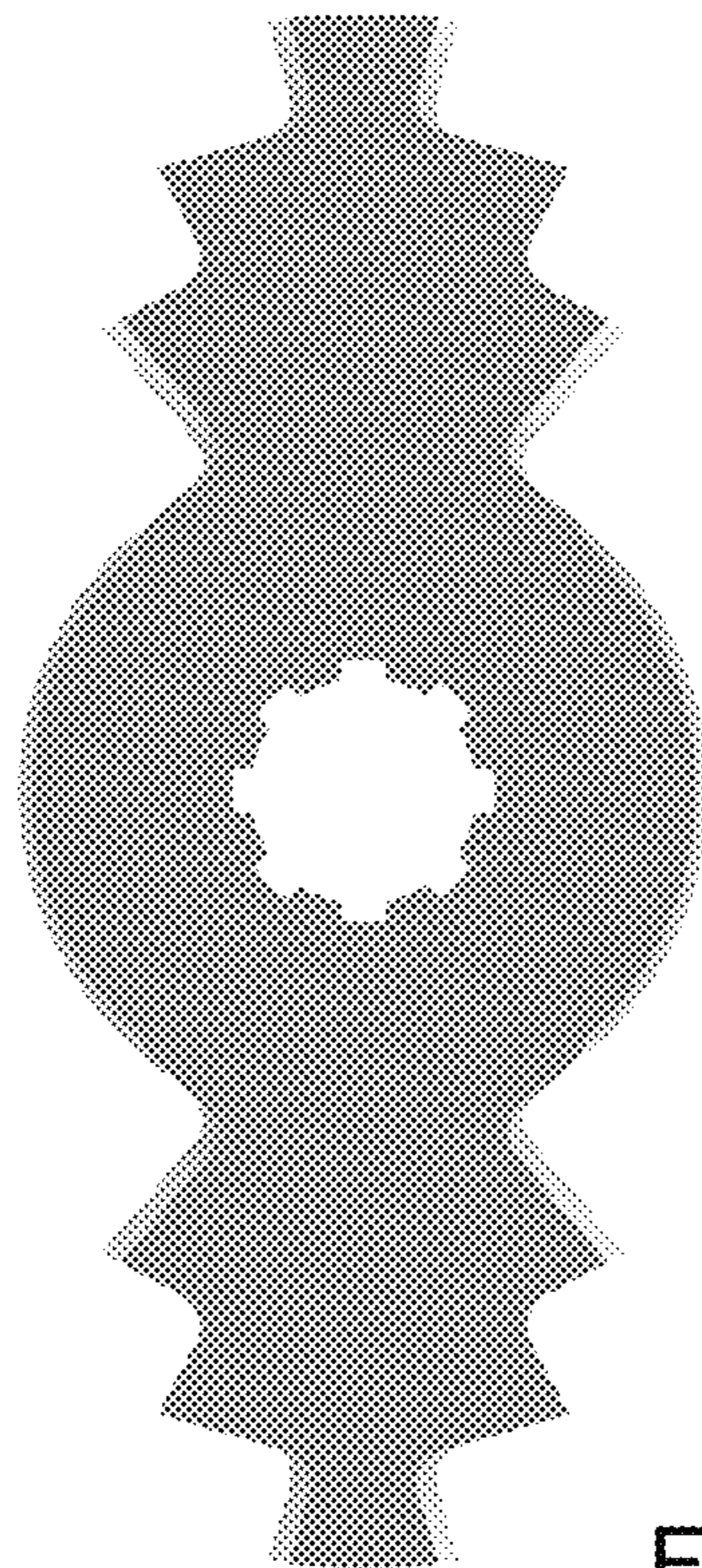


FIG. 5



FIG. 6



FIG. 7