



US00D842974S

(12) **United States Design Patent** (10) **Patent No.:** **US D842,974 S**
Szolony et al. (45) **Date of Patent:** **** Mar. 12, 2019**

(54) **HEAT EXCHANGER**

(71) Applicant: **TOMTON S.R.O.**, Velke Albrechtice (CZ)

(72) Inventors: **Tomás Szolony**, Zilina (CZ); **Ondrej Sikula**, Brno (CZ)

(73) Assignee: **TOMTON s.r.o.**, Velké Albrechtice (CZ)

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

(21) Appl. No.: **35/503,365**

(22) Filed: **Jun. 7, 2017**

(80) **Hague Agreement Data**

Int. Filing Date: **Jun. 7, 2017**

Int. Reg. No.: **DM/096680**

Int. Reg. Date: **Jun. 7, 2017**

Int. Reg. Pub. Date: **Jul. 14, 2017**

(30) **Foreign Application Priority Data**

Feb. 27, 2017 (EM) 003771153-0001

Feb. 27, 2017 (EM) 003771153-0002

(Continued)

(51) **LOC (11) Cl.** **23-04**

(52) **U.S. Cl.**
USPC **D23/323**

(58) **Field of Classification Search**

USPC D23/314, 317, 330, 332, 333, 335-351,
D23/354-356, 370, 376, 378, 381, 382,
D23/386, 411, 412, 323, 388, 389

(Continued)

(56) **References Cited**

U.S. PATENT DOCUMENTS

D28,514 S * 4/1898 Easterly D23/386

D74,086 S * 12/1927 Waters D23/323

(Continued)

OTHER PUBLICATIONS

[Online] <http://www.tomton.cz/en/product/radiator-tomton-r4/>. Retrieved Oct. 13, 2018.*

Primary Examiner — Melanie Pellegrini

(74) *Attorney, Agent, or Firm* — Grady K. Bergen; Griggs Bergen LLP

(57) **CLAIM**

The ornamental design for a heat exchanger, as shown and described.

DESCRIPTION

1.1 is a bottom, front, and right side perspective view of a heat exchanger;

1.2 is a top, front, and right side perspective view of the heat exchanger of FIG. **1.1**;

1.3 is a top, rear, and left side perspective view of the heat exchanger of FIG. **1.1** with a portion removed for completeness of the disclosure;

1.4 is an enlarged and partial rear and left side perspective view of the heat exchanger of FIG. **1.1** with a portion removed for completeness of the disclosure;

1.5 is a top plan view of the heat exchanger of FIGS. **1.1**; and

1.6 is a left side elevational view of the heat exchanger of FIG. **1.1** with a portion removed for completeness of the disclosure;

2.1 is a bottom, front, and right side perspective view of alternate embodiment of a heat exchanger;

2.2 is a top, front, and right side perspective view of the heat exchanger of FIG. **2.1**;

2.3 is a top, rear and left side perspective view of the heat exchanger of FIG. **2.1** with a portion removed for completeness of the disclosure;

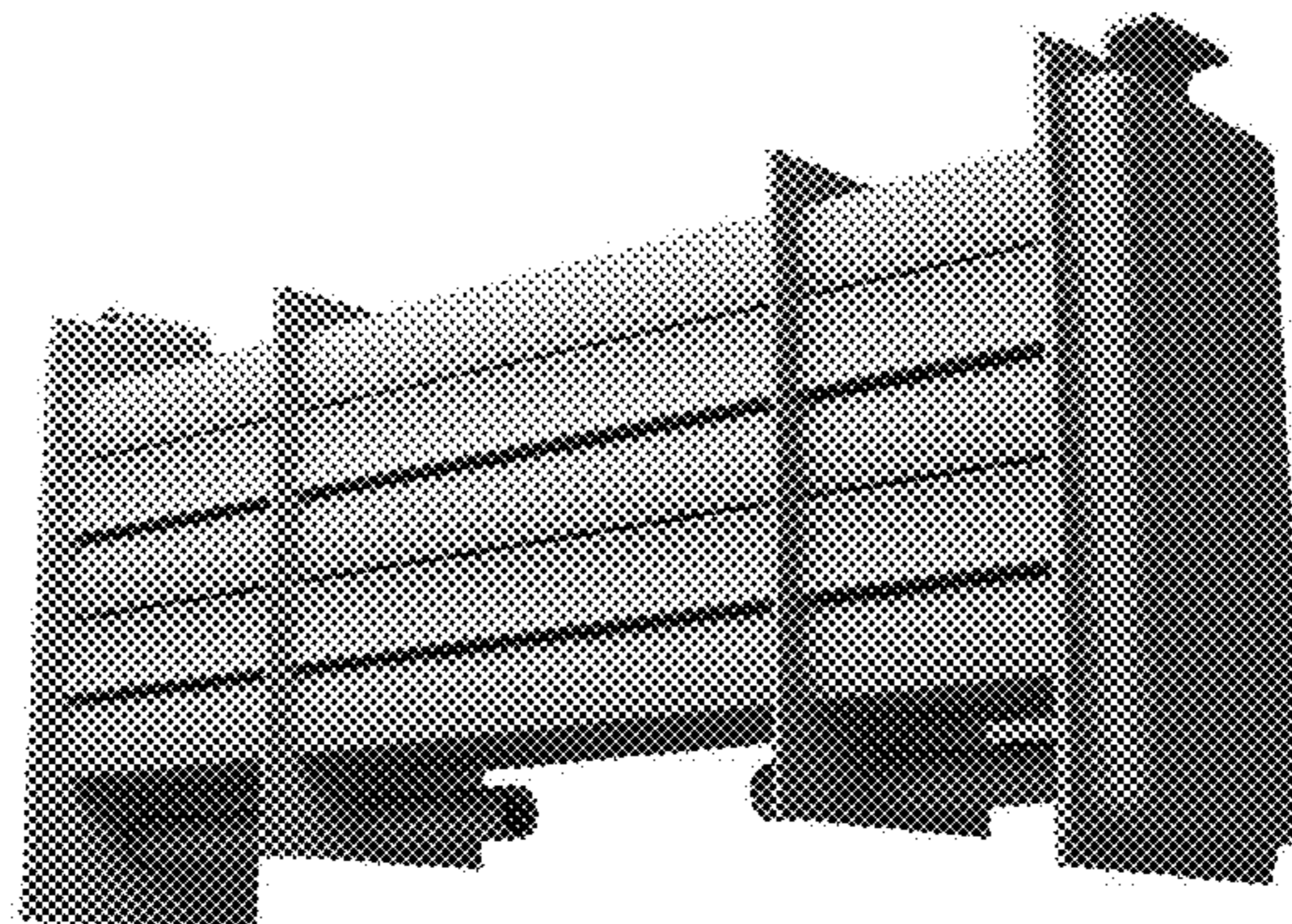
2.4 is an enlarged and partial rear and left side perspective view of the heat exchanger of FIG. **2.1**;

2.5 is a top plan view of the heat exchanger of FIGS. **2.1**; and

2.6 is a left side elevational view of the heat exchanger of FIG. **2.1** with a portion removed for completeness of the disclosure;

3.1 is a bottom, front, and right side perspective view of another alternate embodiment of a heat exchanger;

(Continued)



3.2 is a top, front, and right side perspective view of the heat exchanger of FIG. 3.1;
 3.3 is a top, rear and left side perspective view of the heat exchanger of FIG. 3.1 with a portion removed for completeness of the disclosure;
 3.4 is an enlarged and partial rear and left side perspective view of the heat exchanger of FIG. 3.1;
 3.5 is a top plan view of the heat exchanger of FIG. 3.1; and
 3.6 is a left side elevational view of the heat exchanger of FIG. 3.1.

1 Claim, 15 Drawing Sheets

(30) **Foreign Application Priority Data**

Feb. 27, 2017 (EM) 003771153-0003
 Feb. 27, 2017 (EM) 003771153-0004

(58) **Field of Classification Search**

CPC . F24D 13/00; F24H 7/00; F24H 7/002; F24H 7/0208; F24H 7/0216; F24H 9/02; F28F 1/325; F28D 1/0477

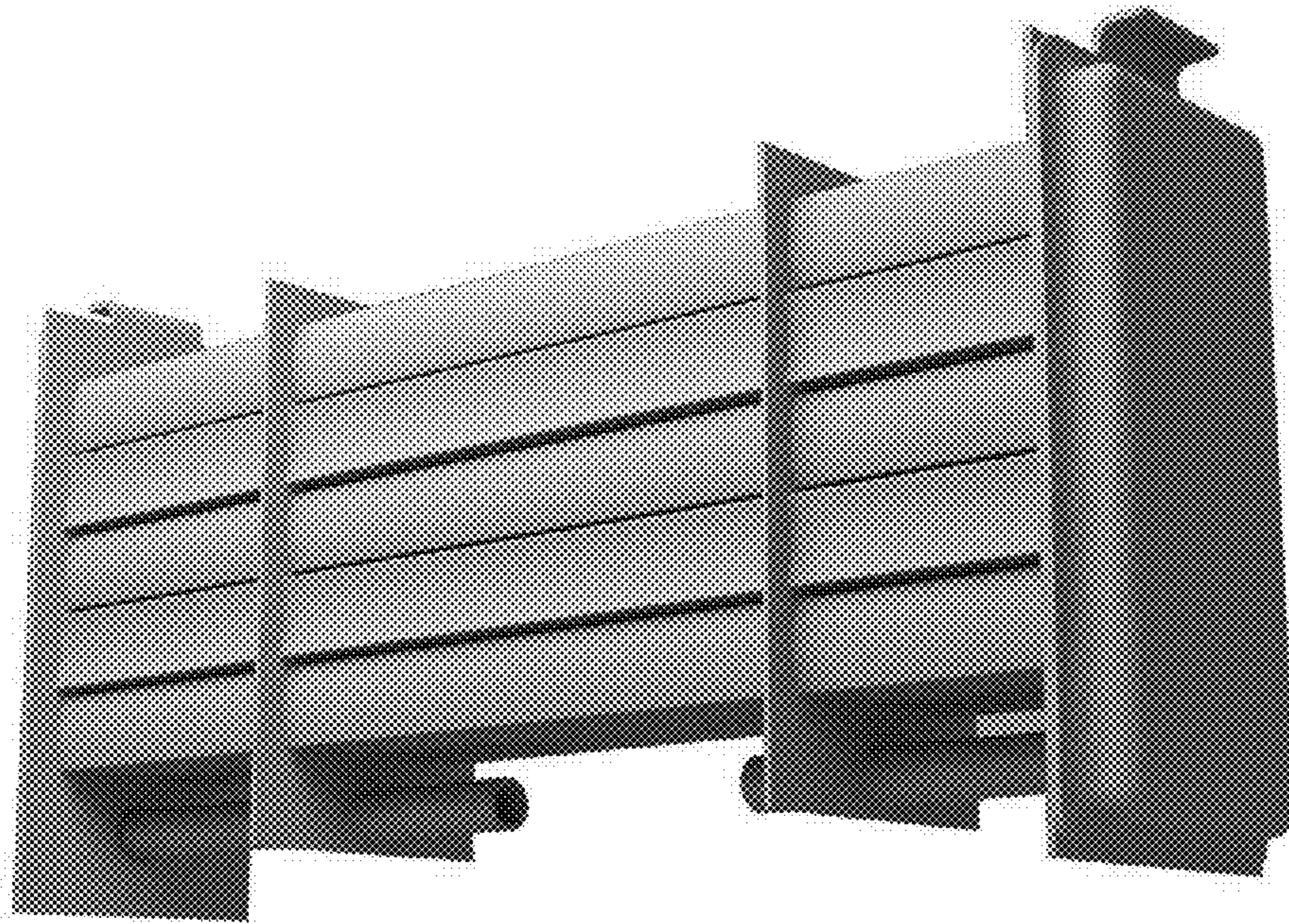
See application file for complete search history.

(56) **References Cited**

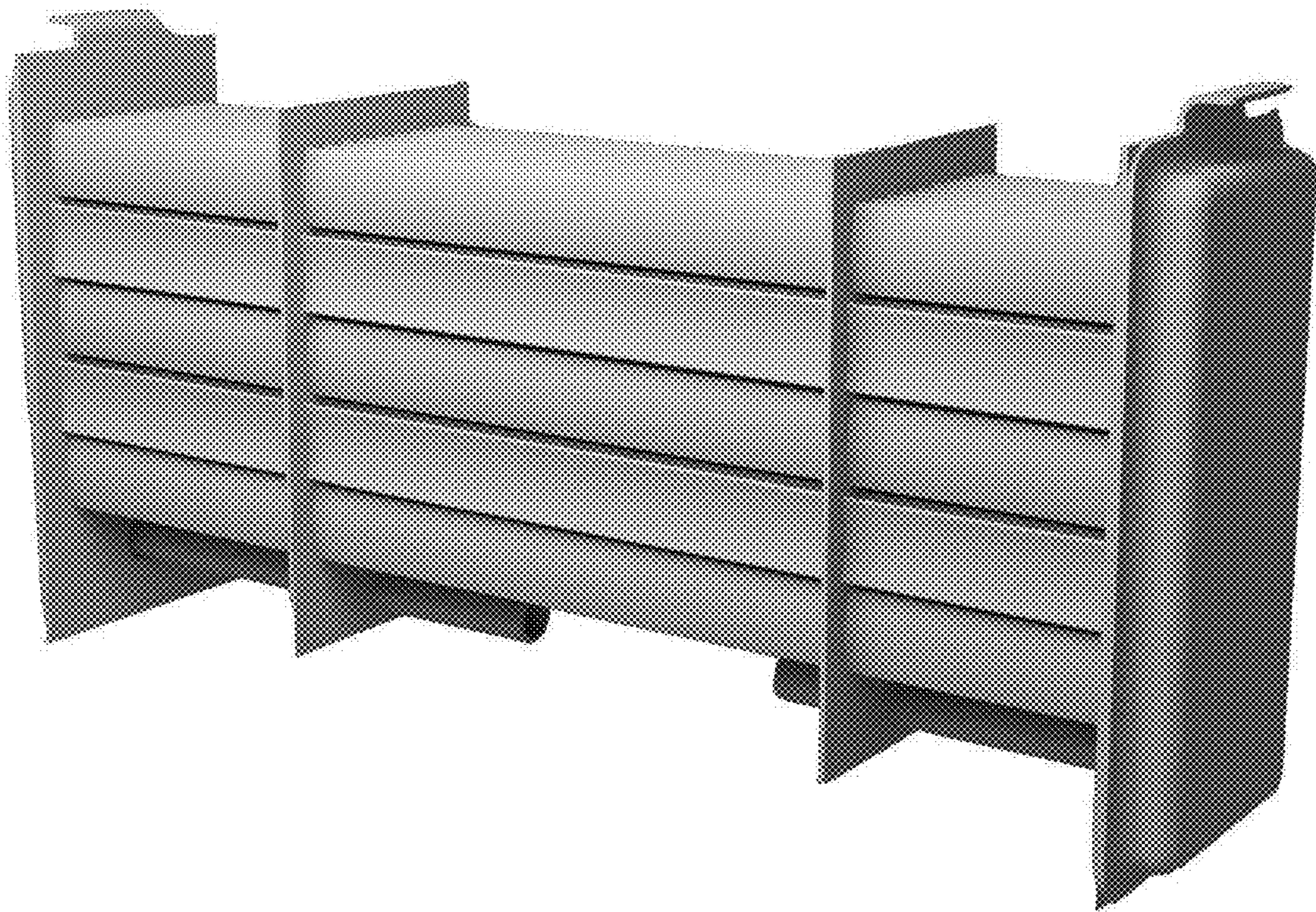
U.S. PATENT DOCUMENTS

D356,367	S	*	3/1995	Kolb	D23/386
D360,258	S	*	7/1995	Shellenberger	D23/329
D655,728	S	*	3/2012	Seno	D15/89
D719,649	S	*	12/2014	Ainley	D23/323
D785,151	S	*	4/2017	Oktayer	D23/354
2013/0299132	A1	*	11/2013	Guilford	F28F 1/00 165/67

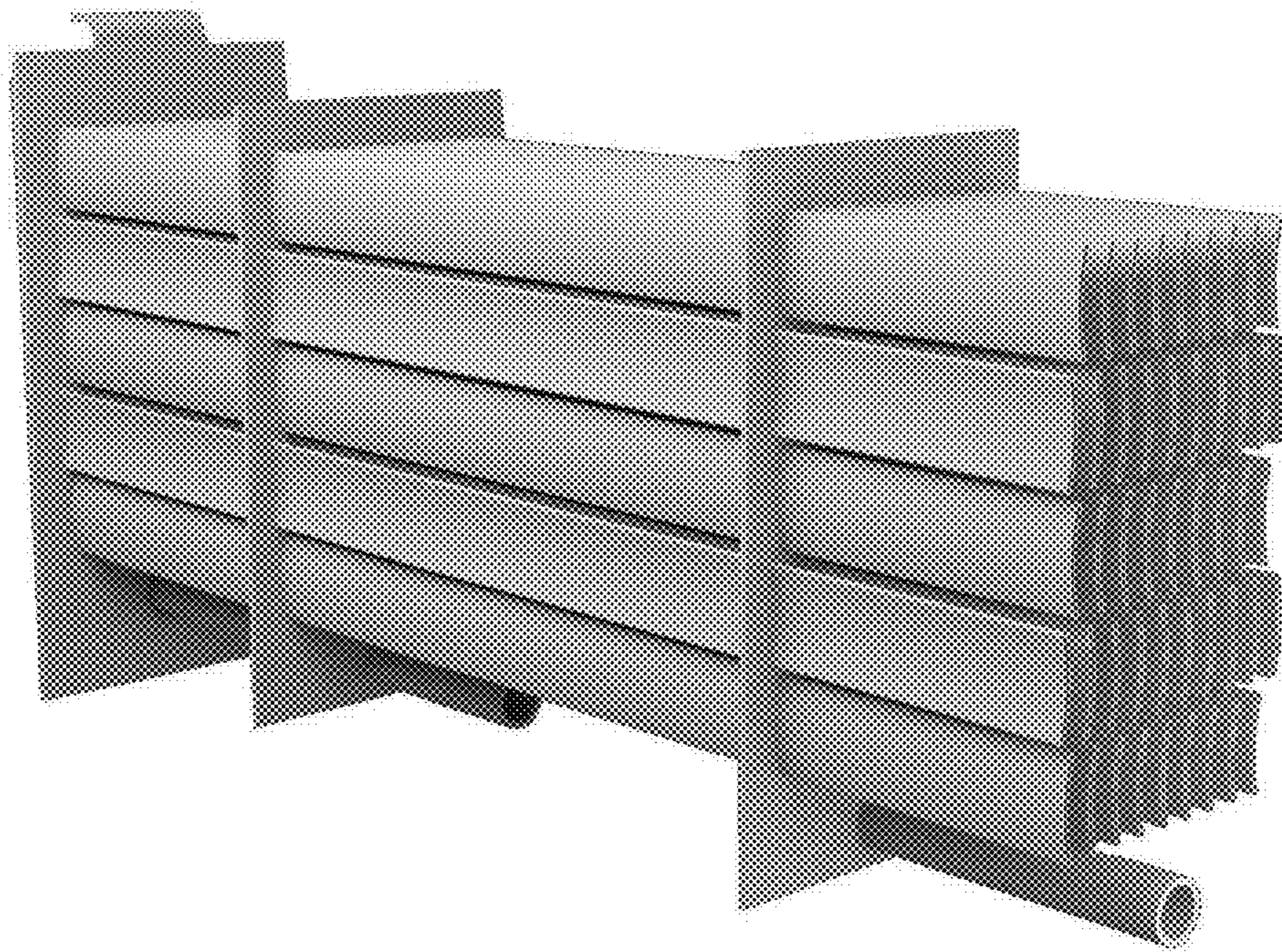
* cited by examiner



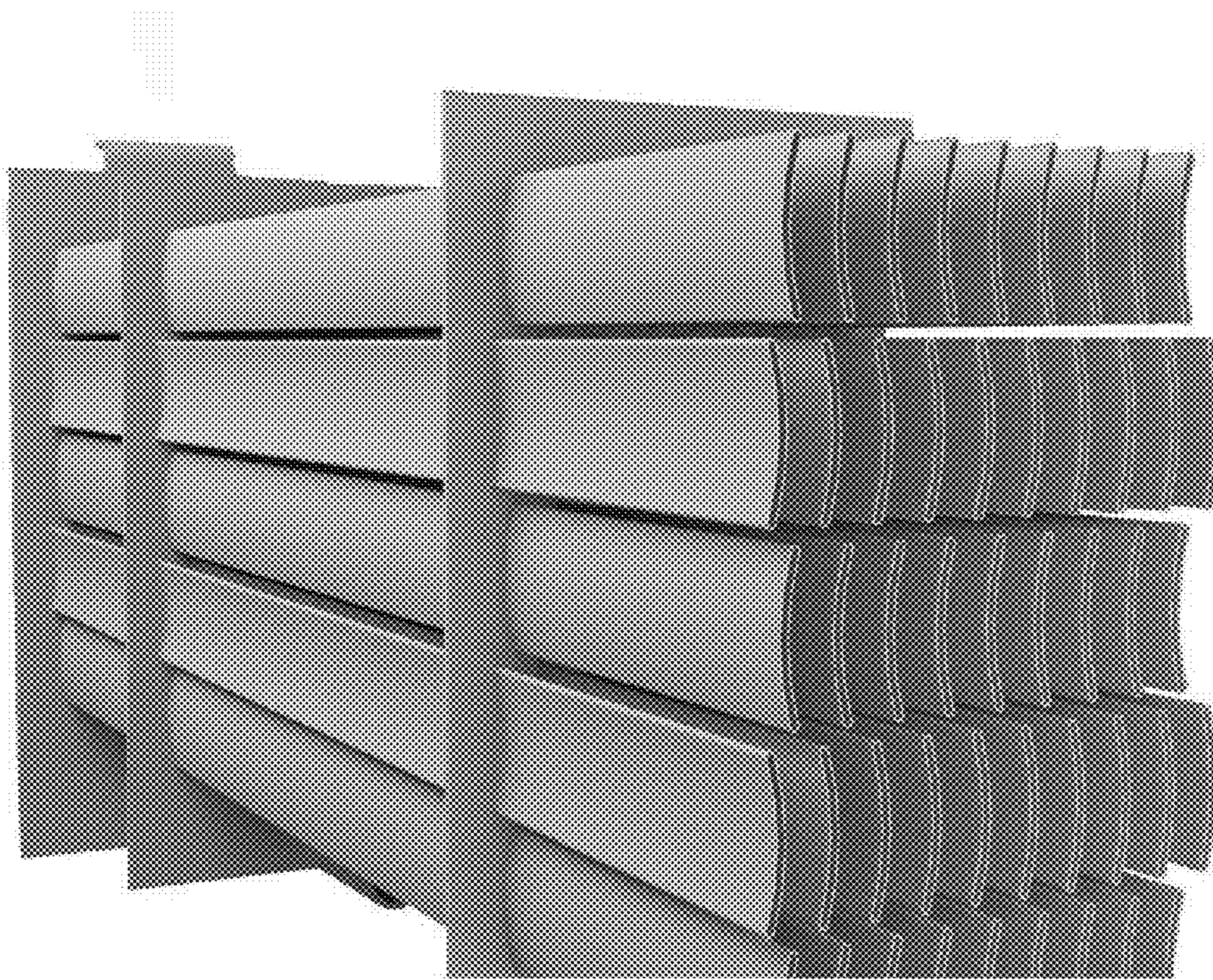
1.1



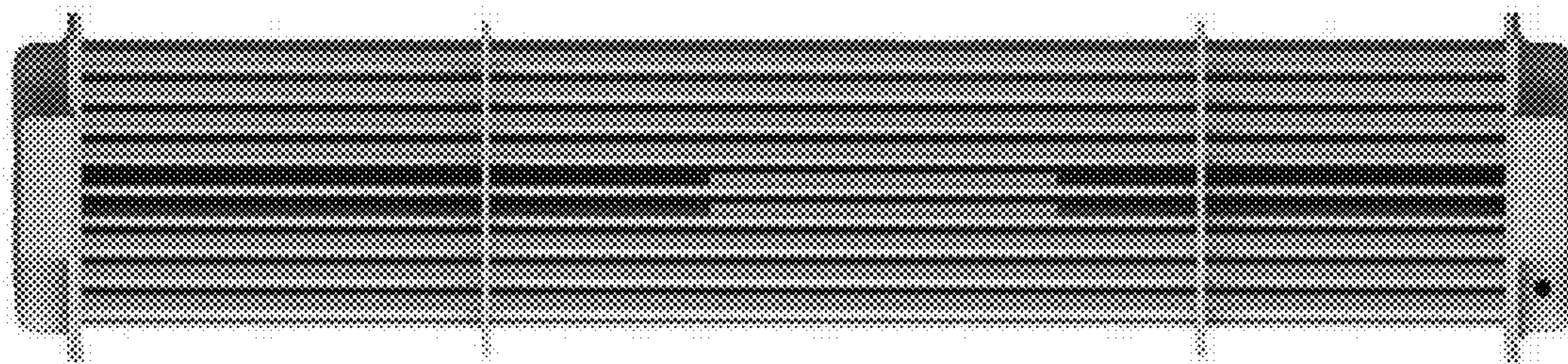
1.2



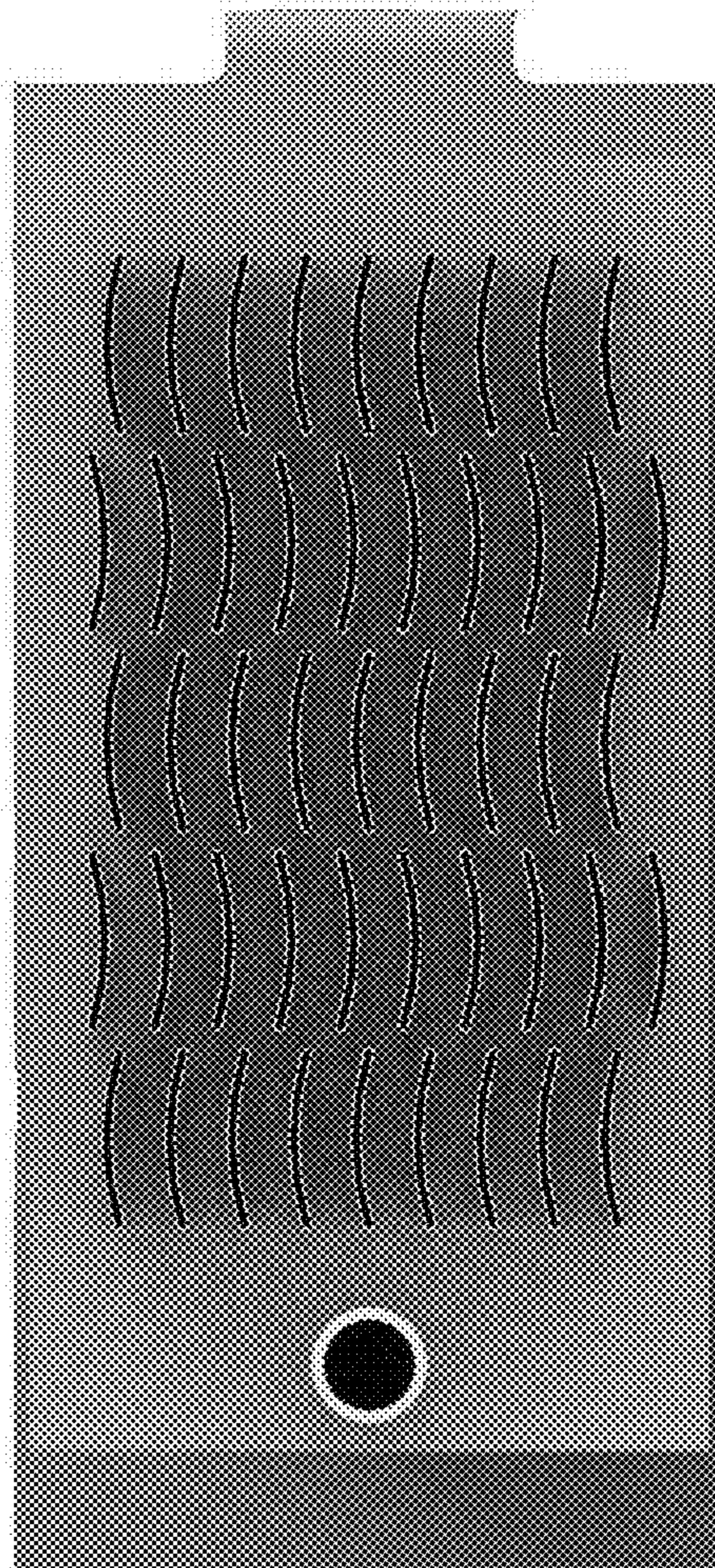
1.3



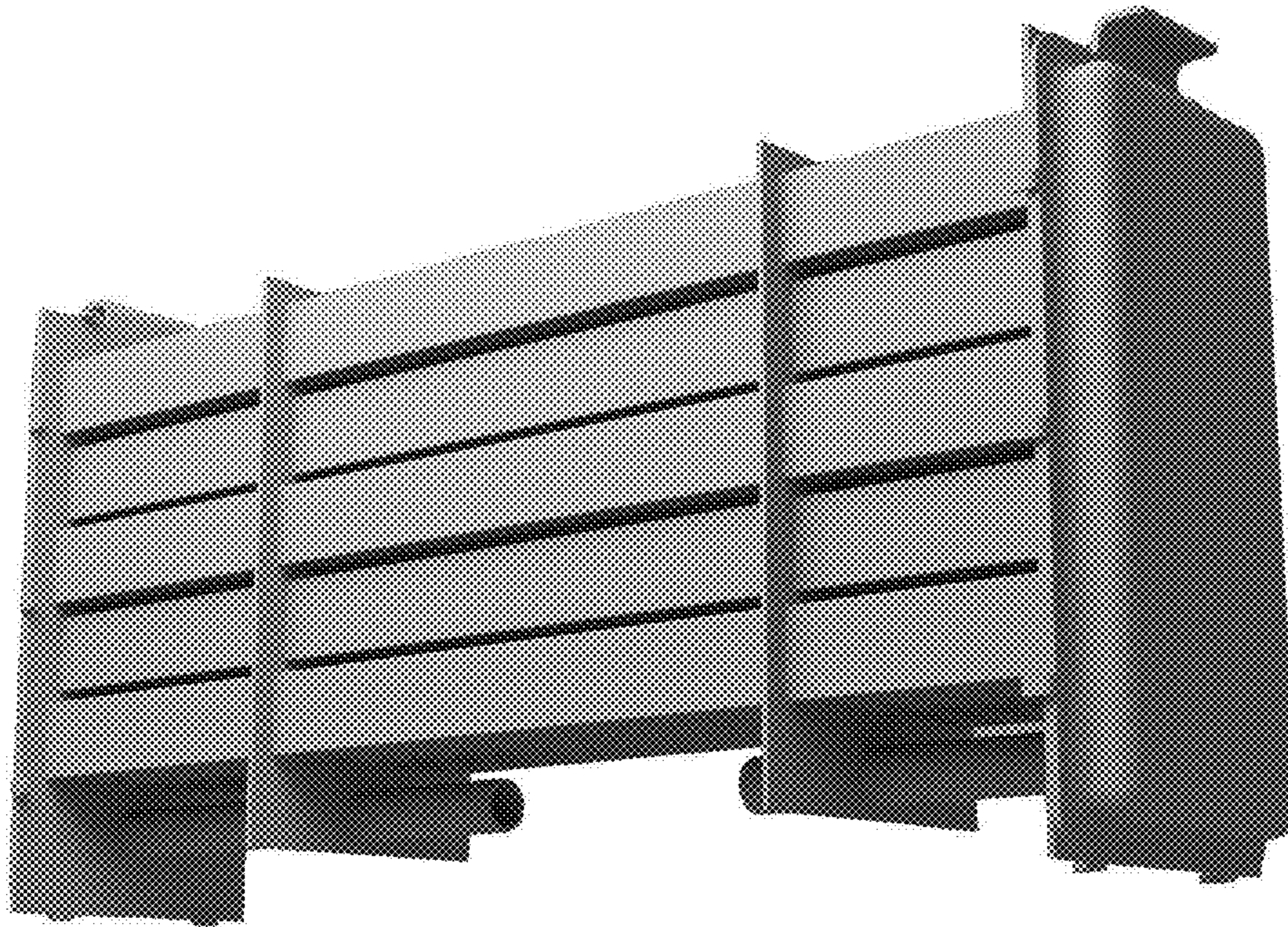
1.4



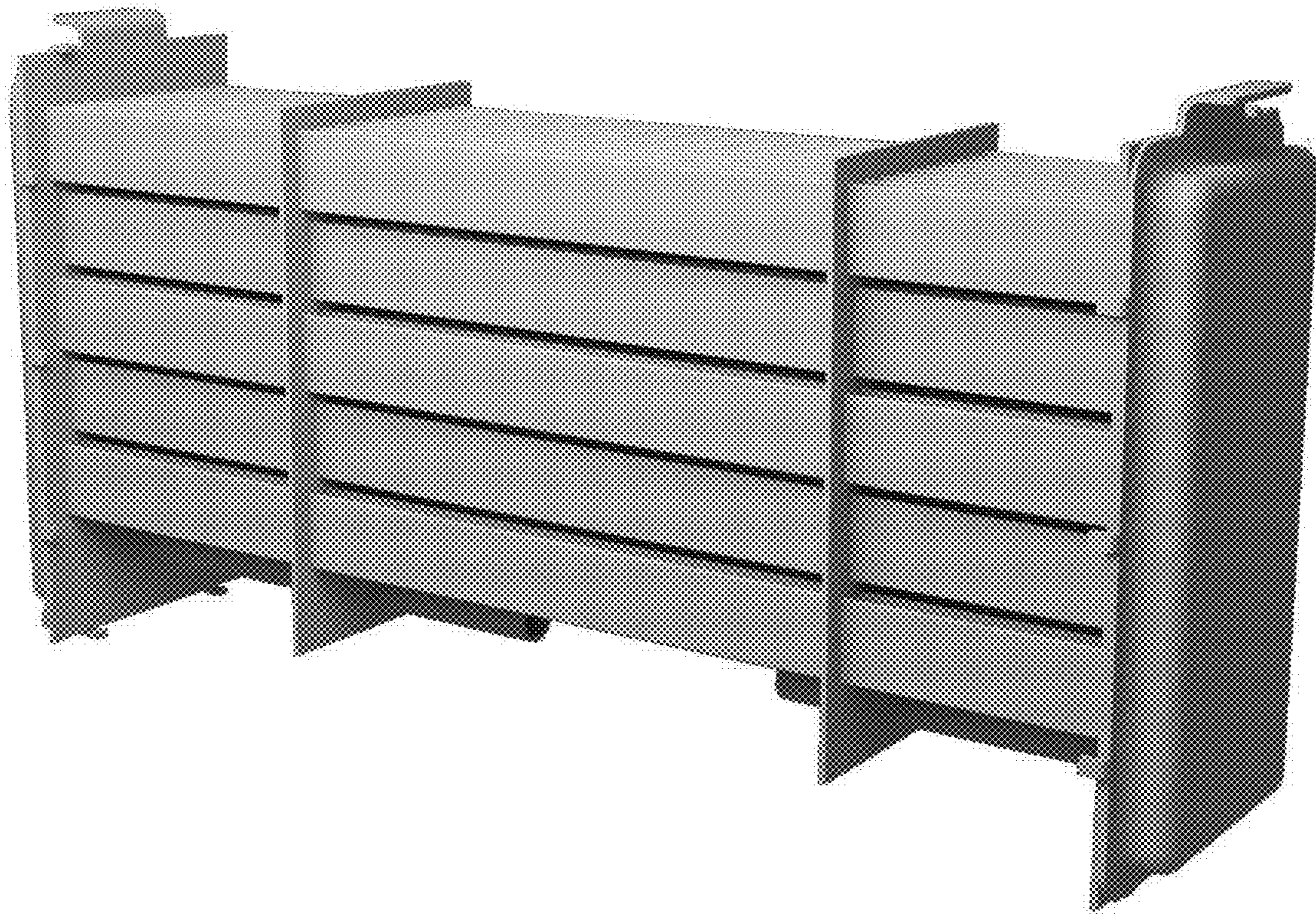
1.5



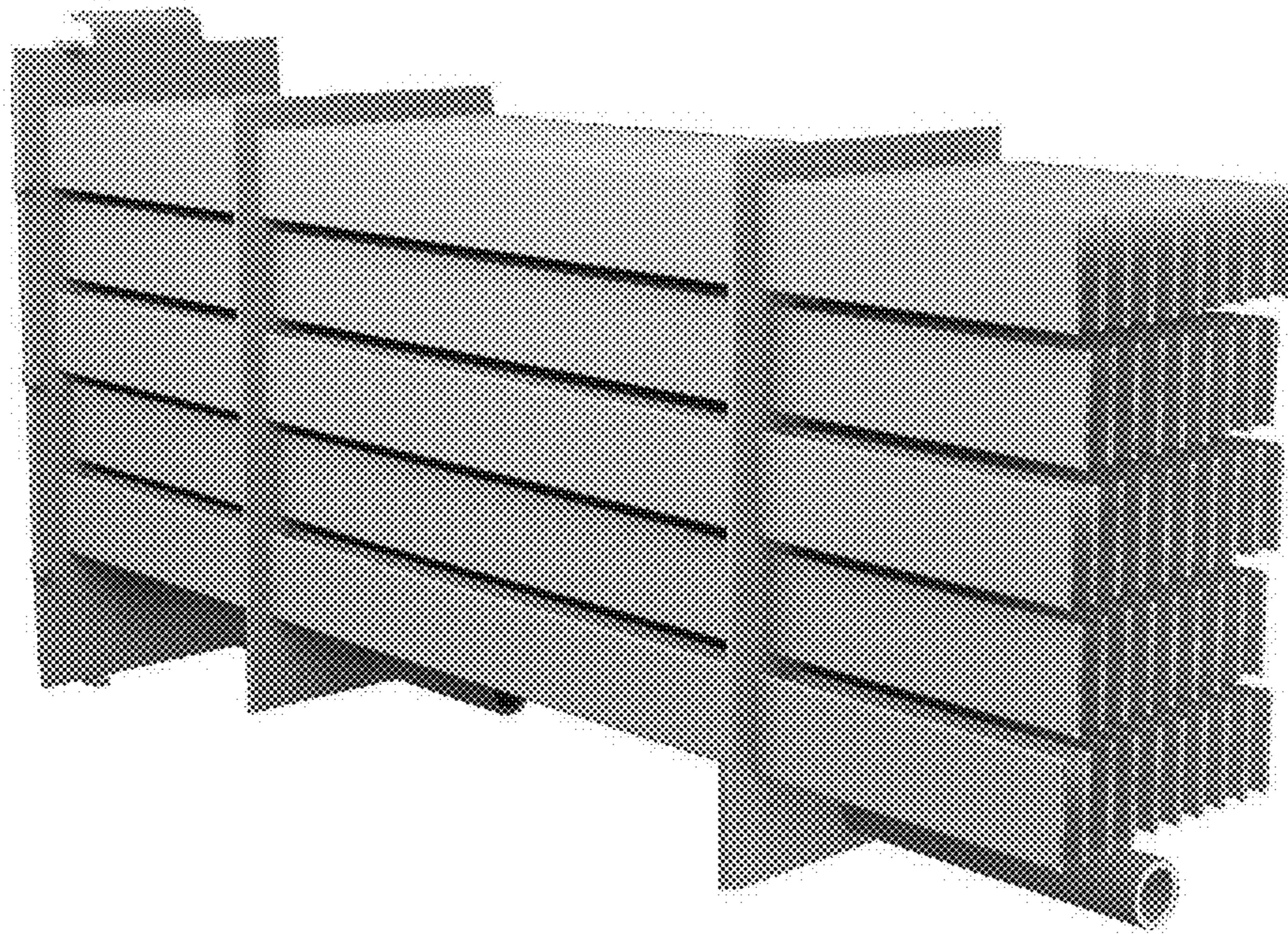
1.6



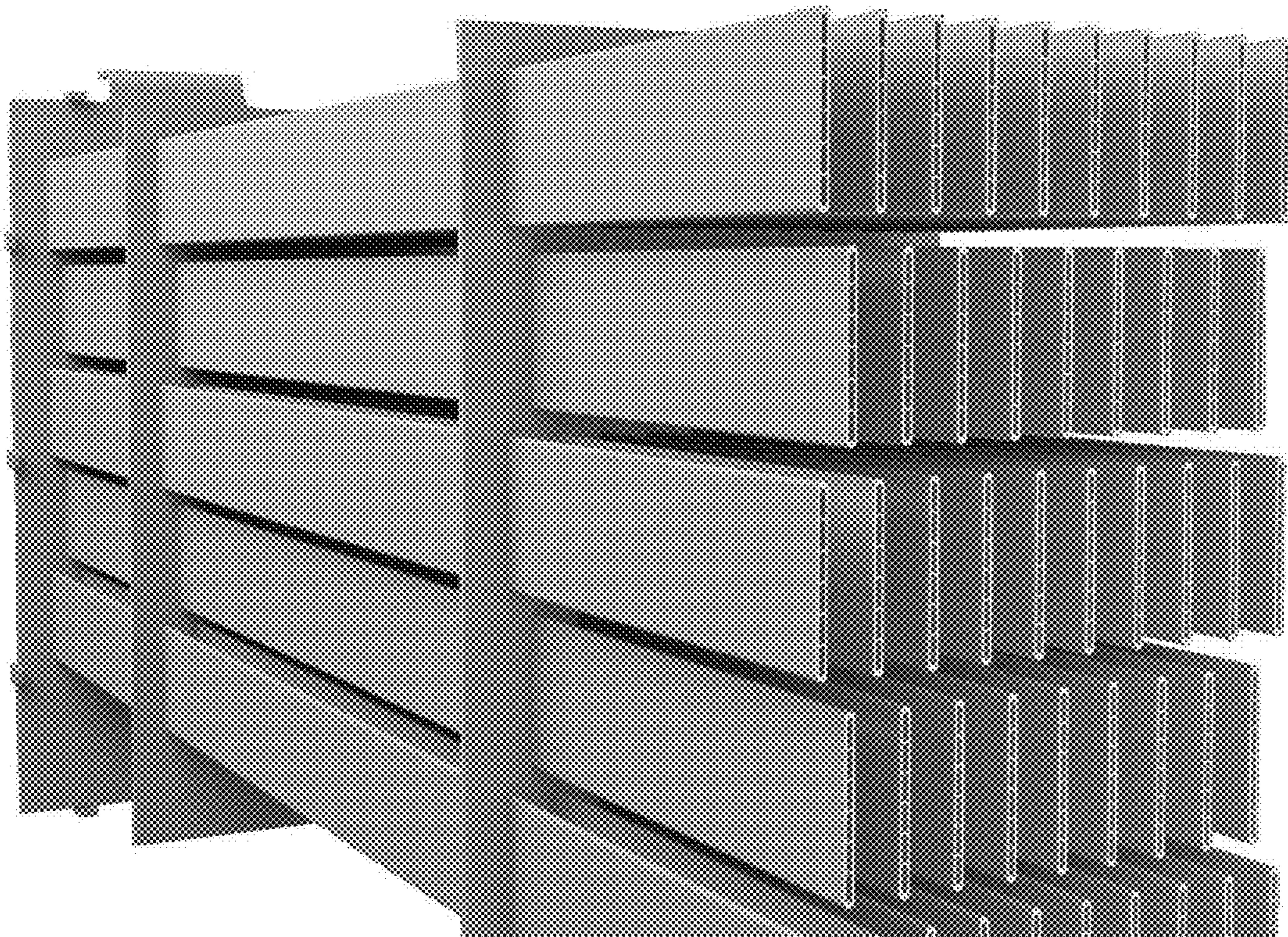
2.1



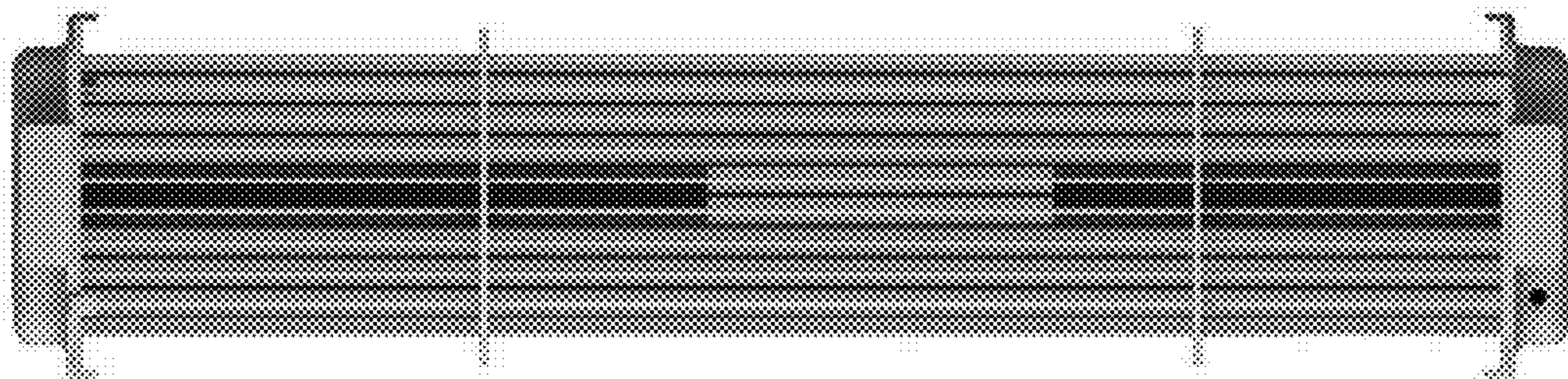
2.2



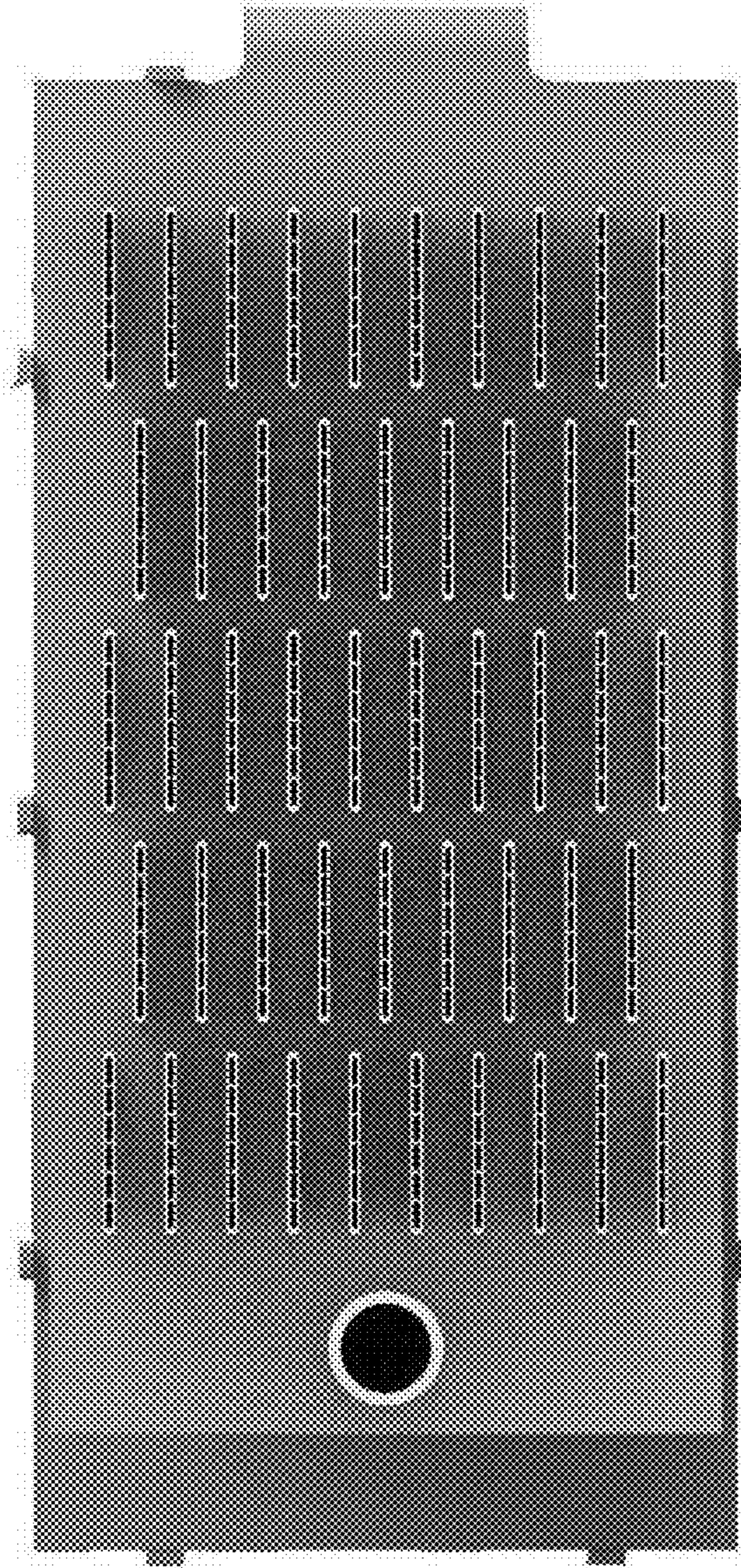
2.3



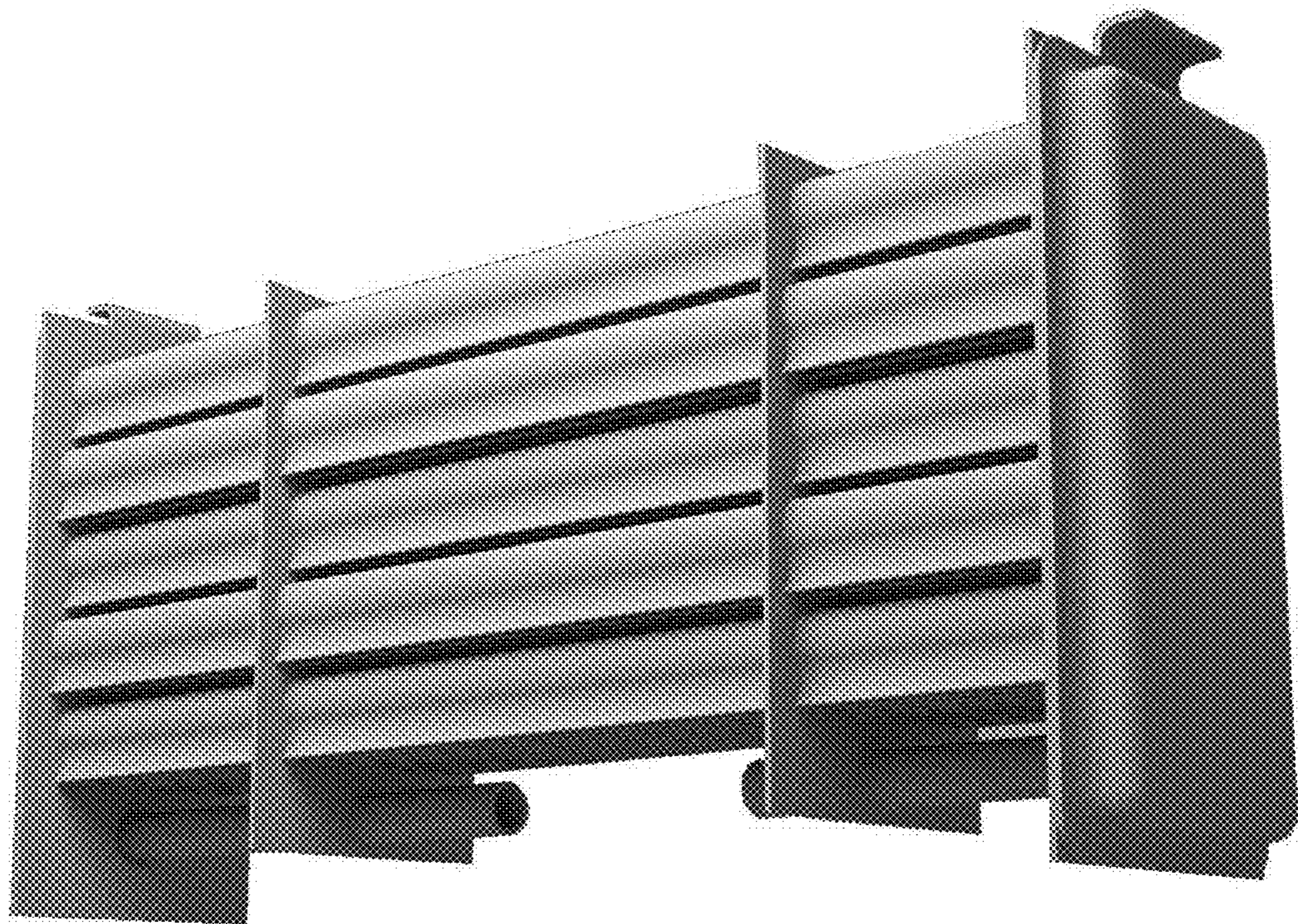
2.4



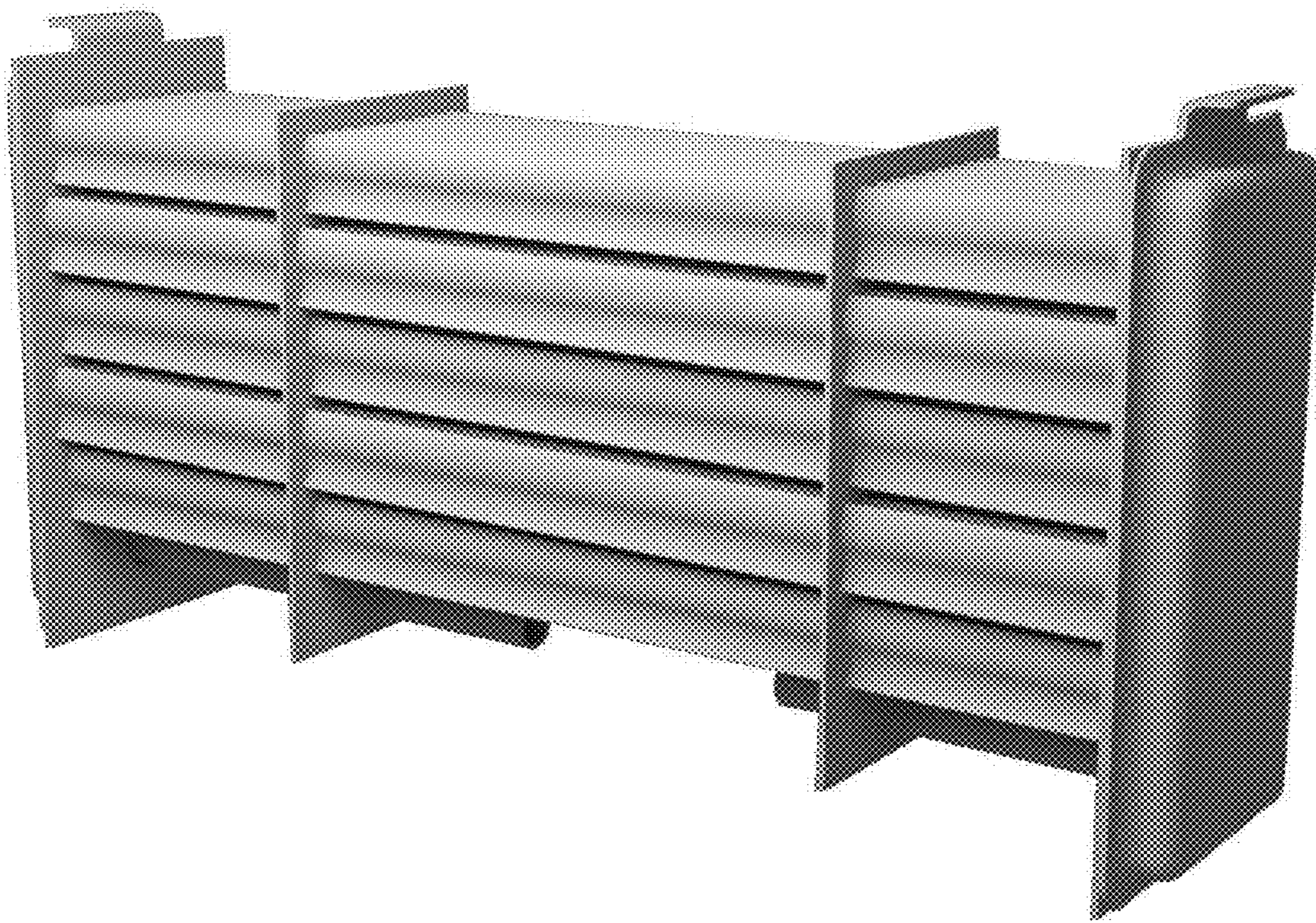
2.5



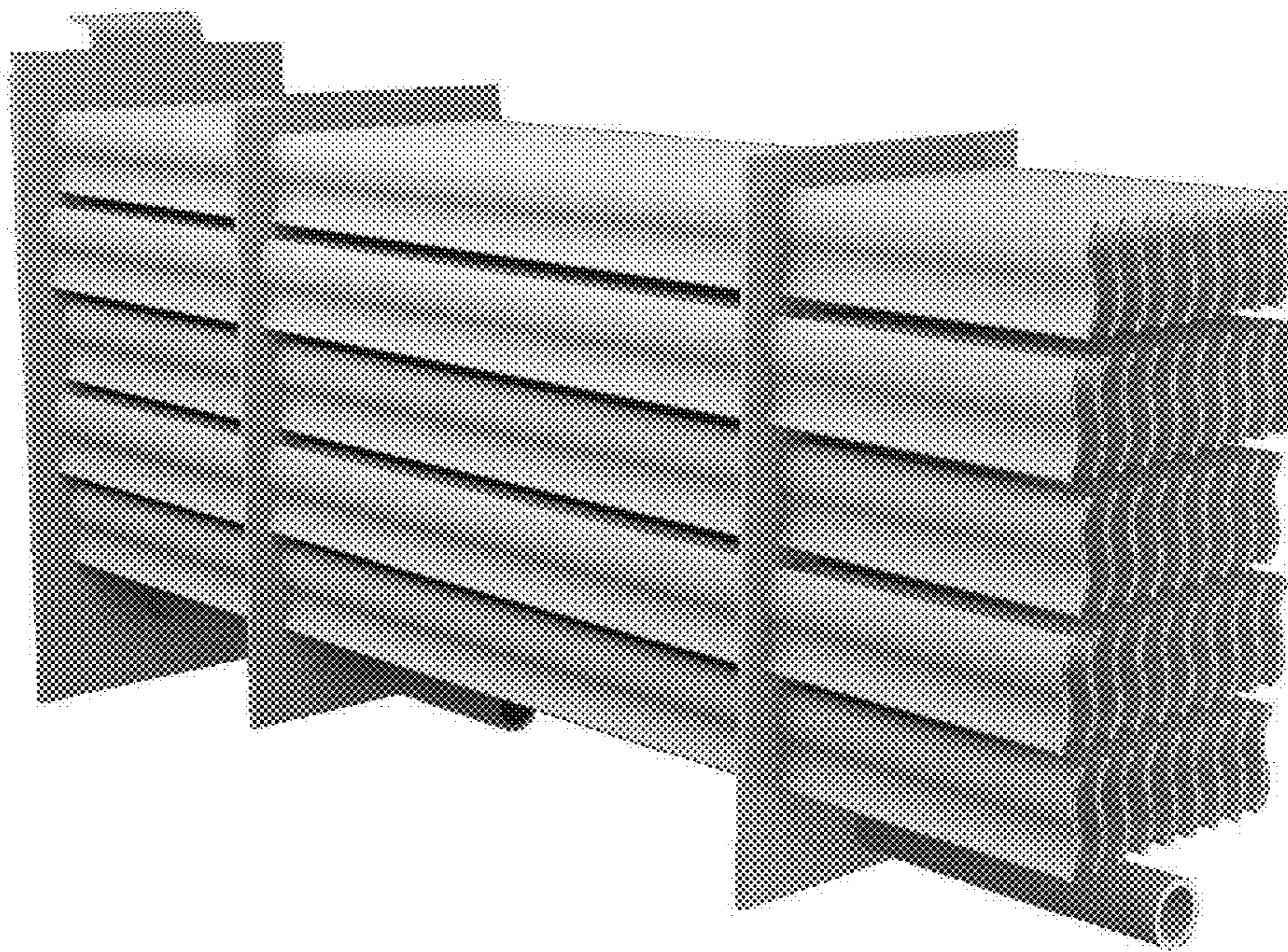
2.6



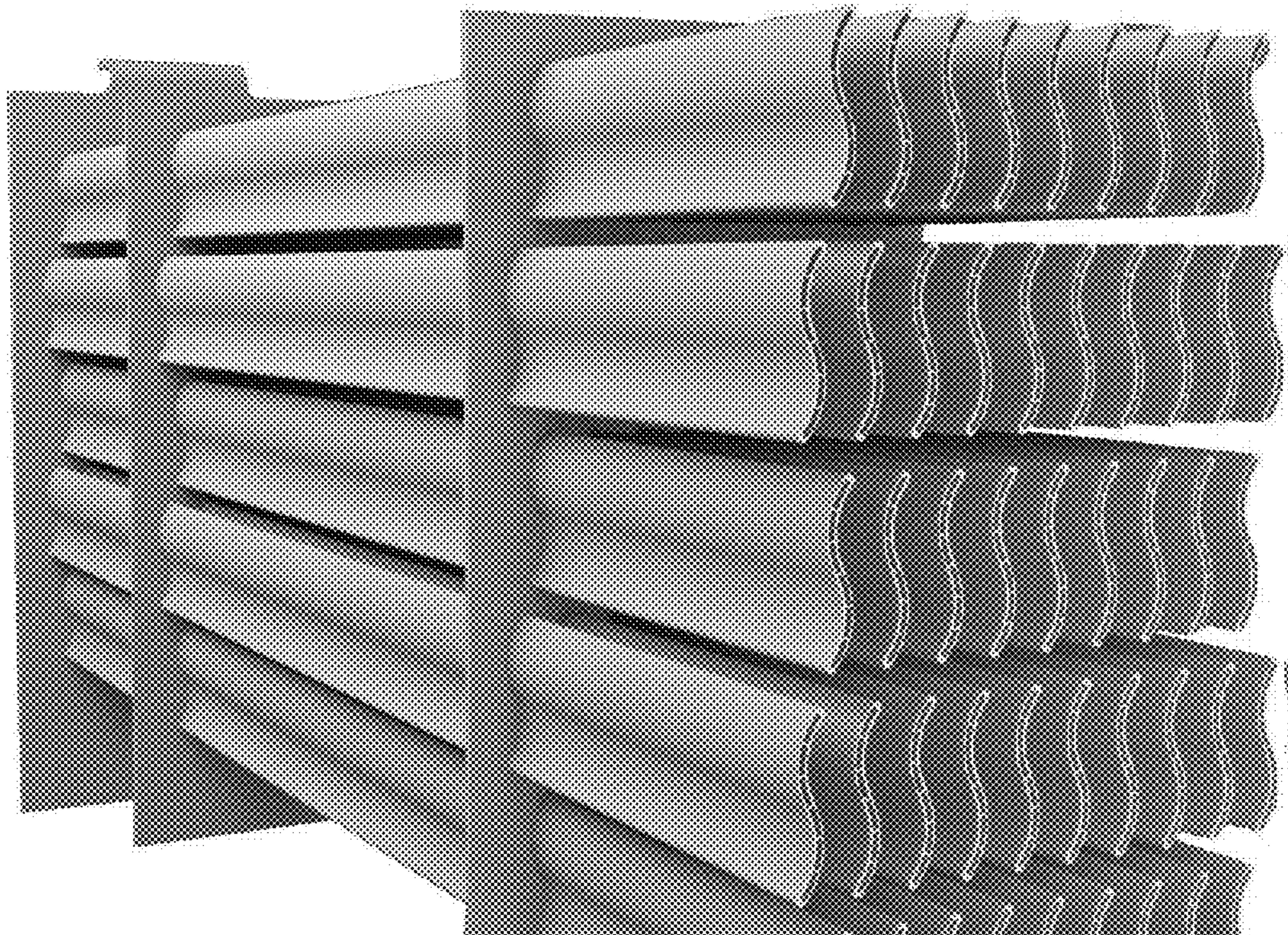
3.1



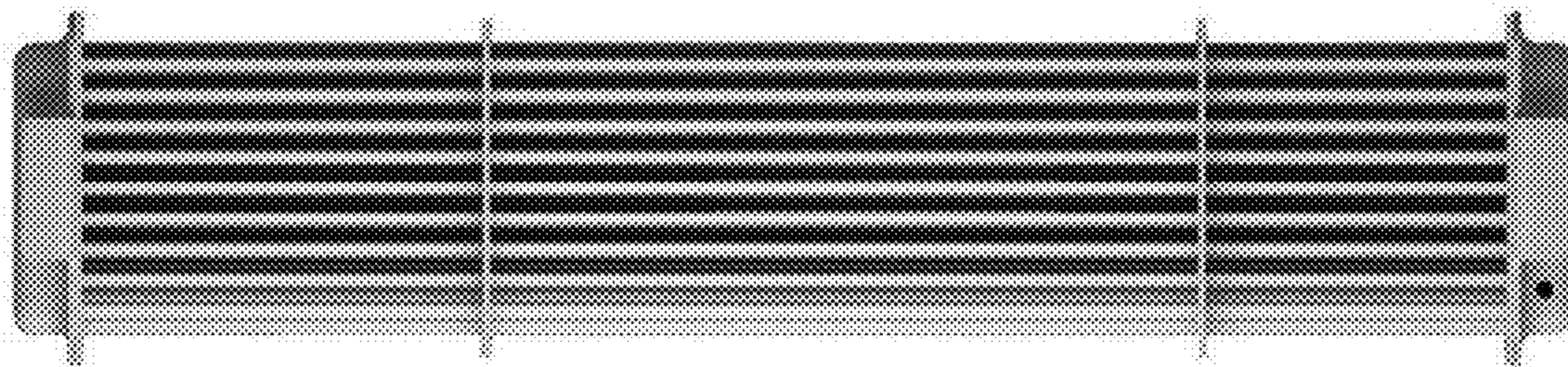
3.2



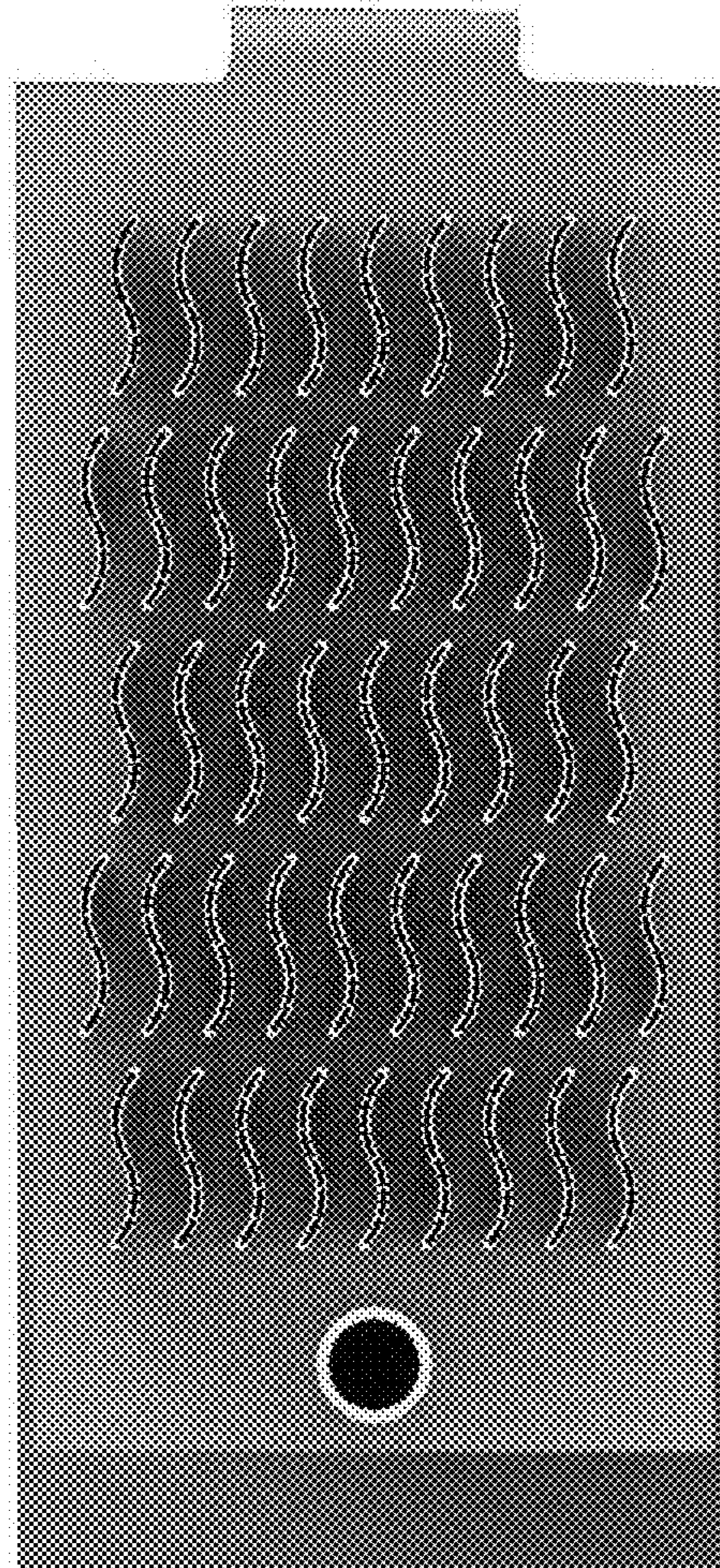
3.3



3.4



3.5



3.6