



US00D867412S

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

(10) **Patent No.:** **US D867,412 S**

(45) **Date of Patent:** **\*\* Nov. 19, 2019**

(54) **RIPPER FOR GRANULATING MACHINES**  
(71) Applicant: **Rapid Granulator AB**, Bredaryd (SE)  
(72) Inventors: **Tomas Bäckman**, Bredaryd (SE);  
**Magnus Blom**, Värnamo (SE); **Thomas Ericsson**, Värnamo (SE); **Henrik Karlsson**, Värnamo (SE); **Kurt Sjöberg**, Bredaryd (SE)

(73) Assignee: **RAPID GRANULATOR AB**, Bredaryd (SE)

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

(21) Appl. No.: **29/597,894**

(22) Filed: **Mar. 21, 2017**

(30) **Foreign Application Priority Data**

Sep. 30, 2016 (EM) ..... 003400605

(51) **LOC (12) Cl.** ..... **15-09**

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

(58) **Field of Classification Search**  
USPC ..... D8/20, 70; D15/28, 123, 126, 131, 138,  
D15/139, 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

2,891,300 A \* 6/1959 Shephard ..... B23B 27/08  
407/114  
3,254,392 A \* 6/1966 Novkov ..... B23B 27/04  
407/113  
3,289,273 A \* 12/1966 Artaud ..... B23B 29/03  
235/133 R

3,303,728 A \* 2/1967 Testa ..... B23B 29/02  
407/108  
3,559,705 A \* 2/1971 Salzmann, Jr. .... B27L 11/005  
144/162.1  
4,674,198 A \* 6/1987 Huttlin ..... A23G 3/26  
34/135  
5,224,656 A \* 7/1993 Kobayashi ..... B01J 2/10  
241/188.2  
7,753,296 B2 \* 7/2010 Makino ..... B01J 2/16  
241/38  
7,922,798 B2 \* 4/2011 Consoli ..... B01J 2/16  
95/281  
8,187,512 B2 \* 5/2012 Eloo ..... B29B 9/065  
264/141  
D735,773 S \* 8/2015 Aracama Martinez de  
Lahidalga ..... D15/29  
2014/0186128 A1 \* 7/2014 Nedzlek ..... B23C 3/055  
407/44

\* cited by examiner

*Primary Examiner* — Patricia A Palasik

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

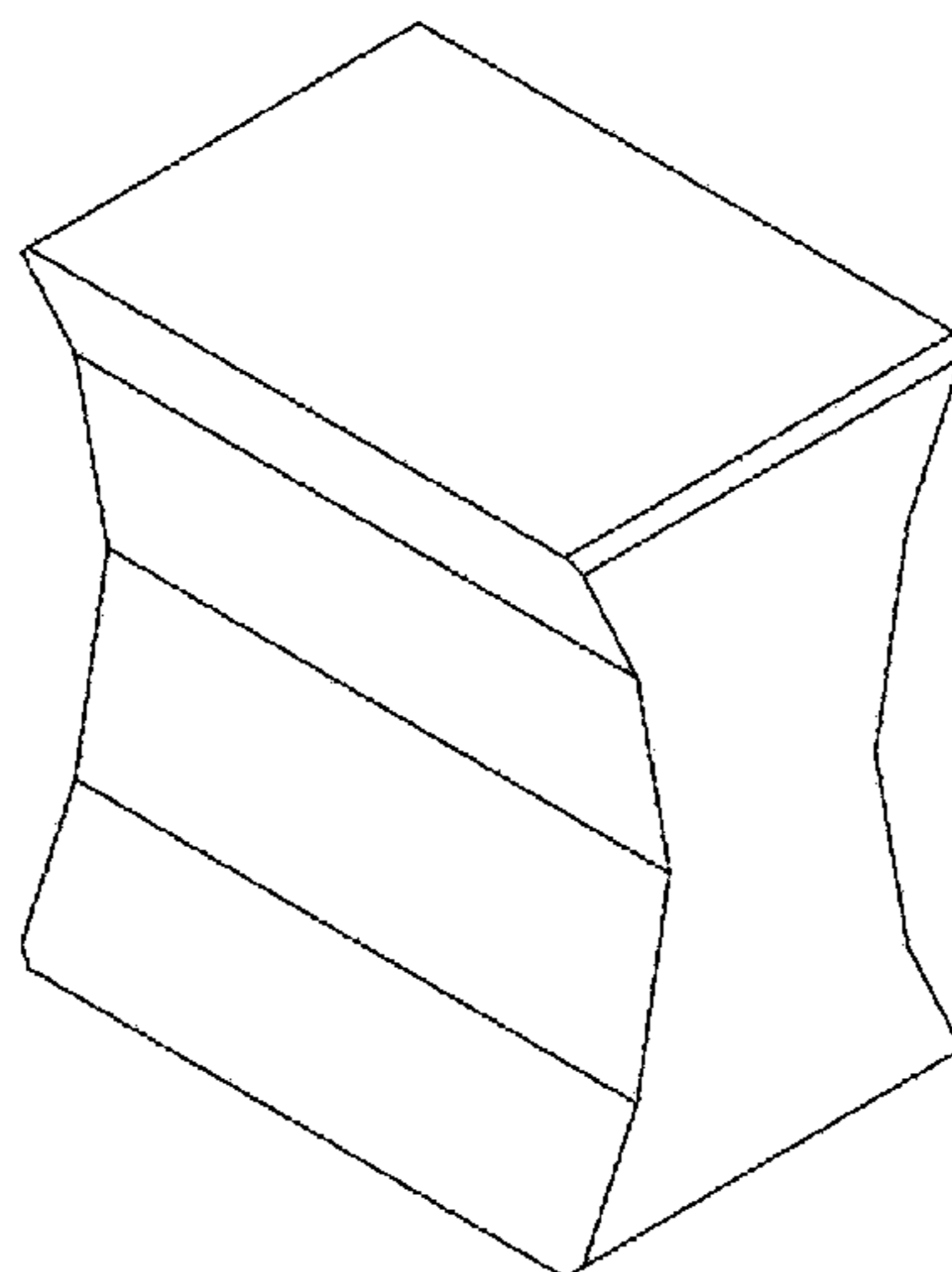
(57) **CLAIM**

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

**DESCRIPTION**

FIG. 1 is a front-right-top perspective view of a ripper for granulating machines showing our new design.  
FIG. 2 is a rear-left-bottom perspective view thereof.  
FIGS. 3-4 are additional front-right-top perspective views thereof.  
FIG. 5 is a front view thereof, a rear view being a mirror image of the front view.  
FIG. 6 is a left side view thereof, a right side view being a mirror image of the left side view.  
FIG. 7 is a top view thereof, a bottom view being a mirror image of the top view.

**1 Claim, 3 Drawing Sheets**



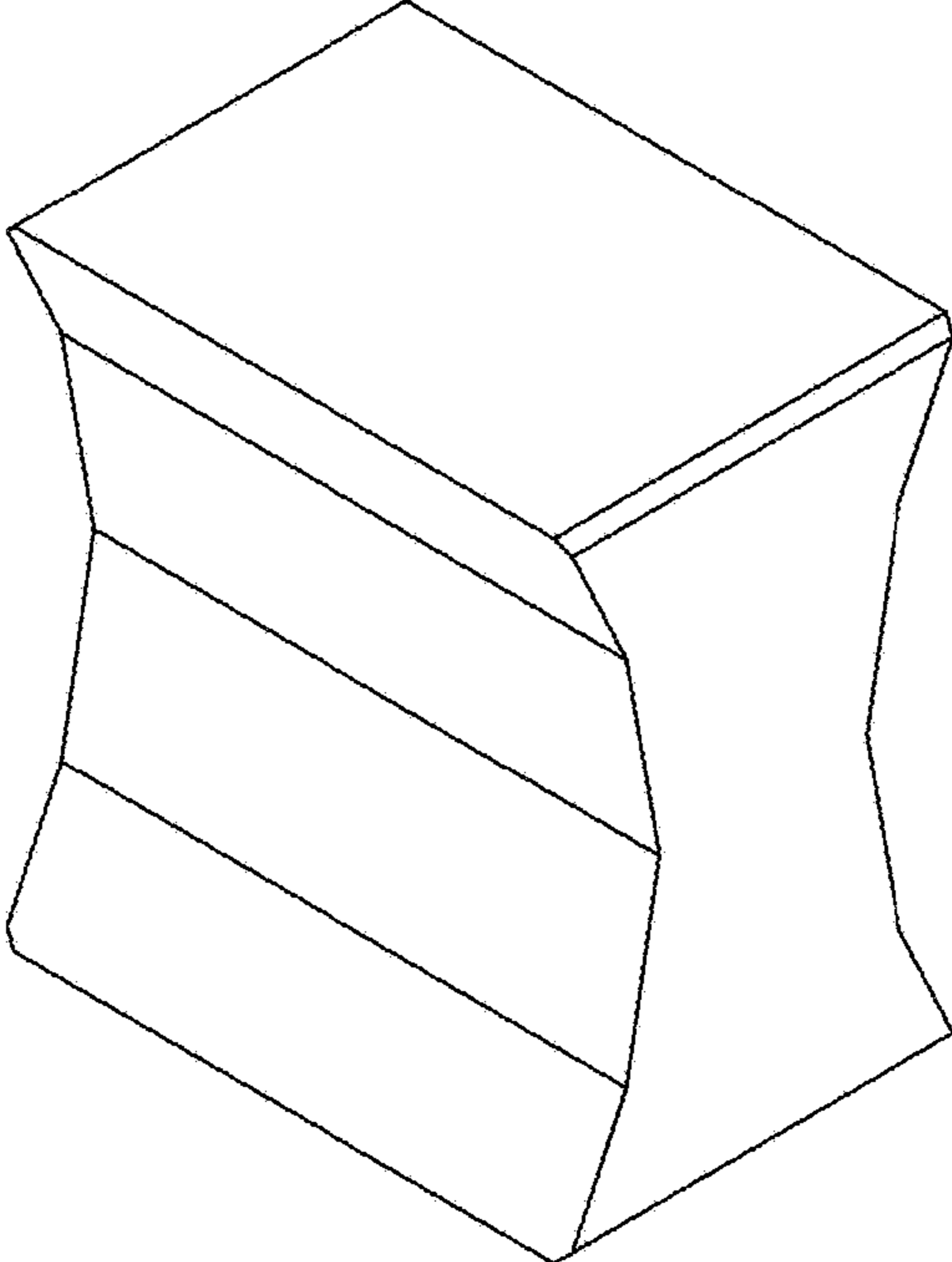


FIG. 1

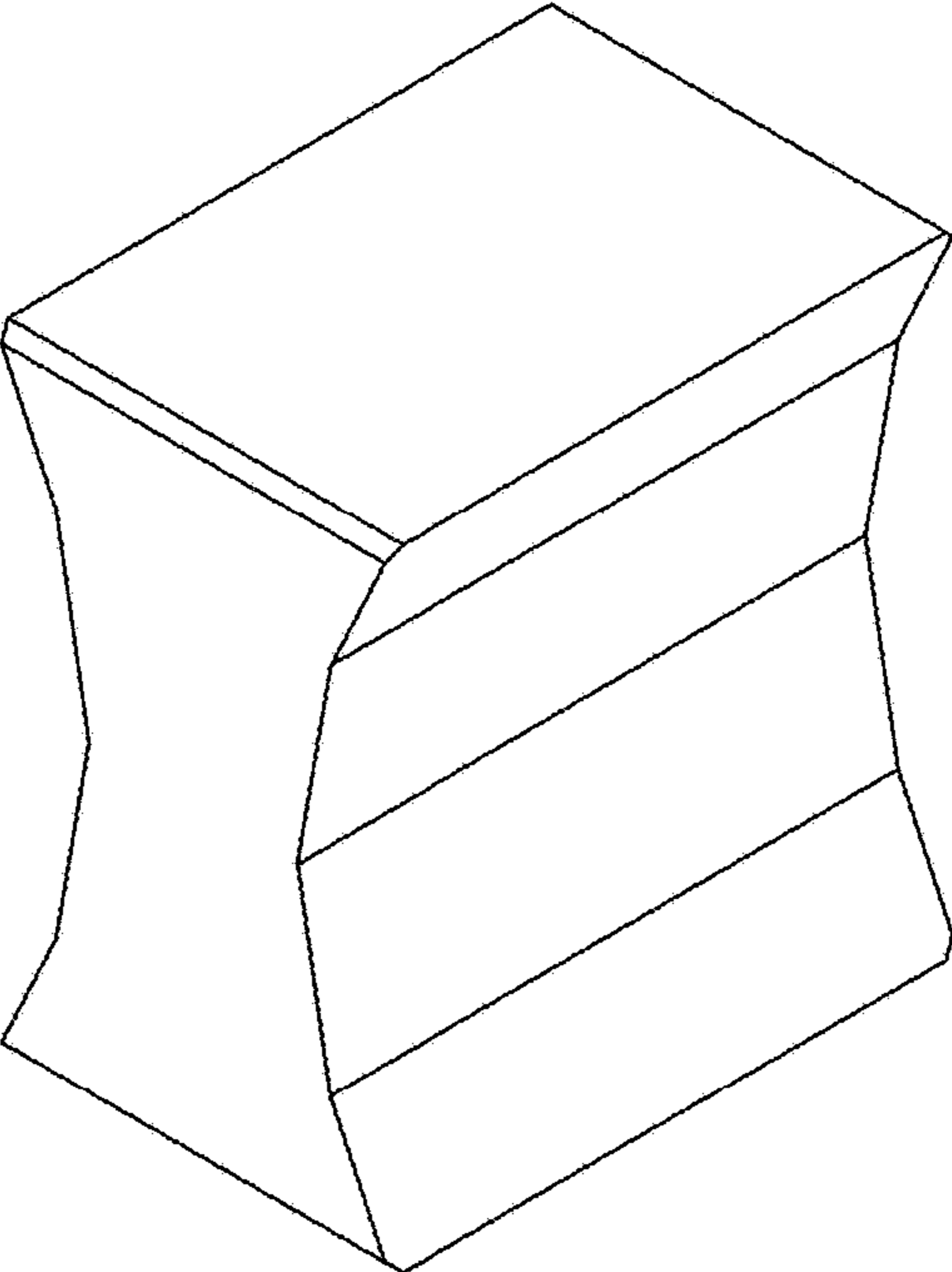


FIG. 2

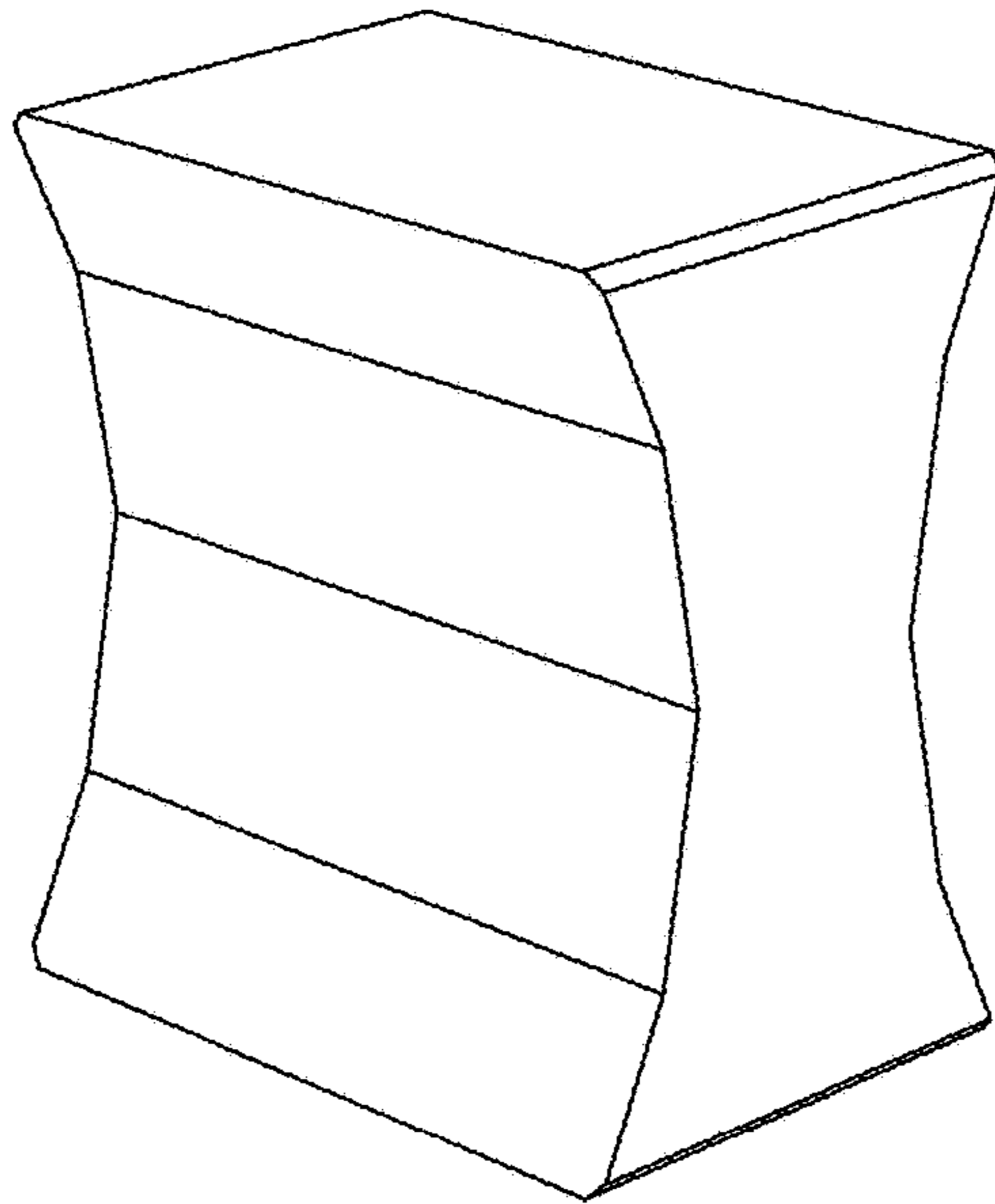


FIG. 3

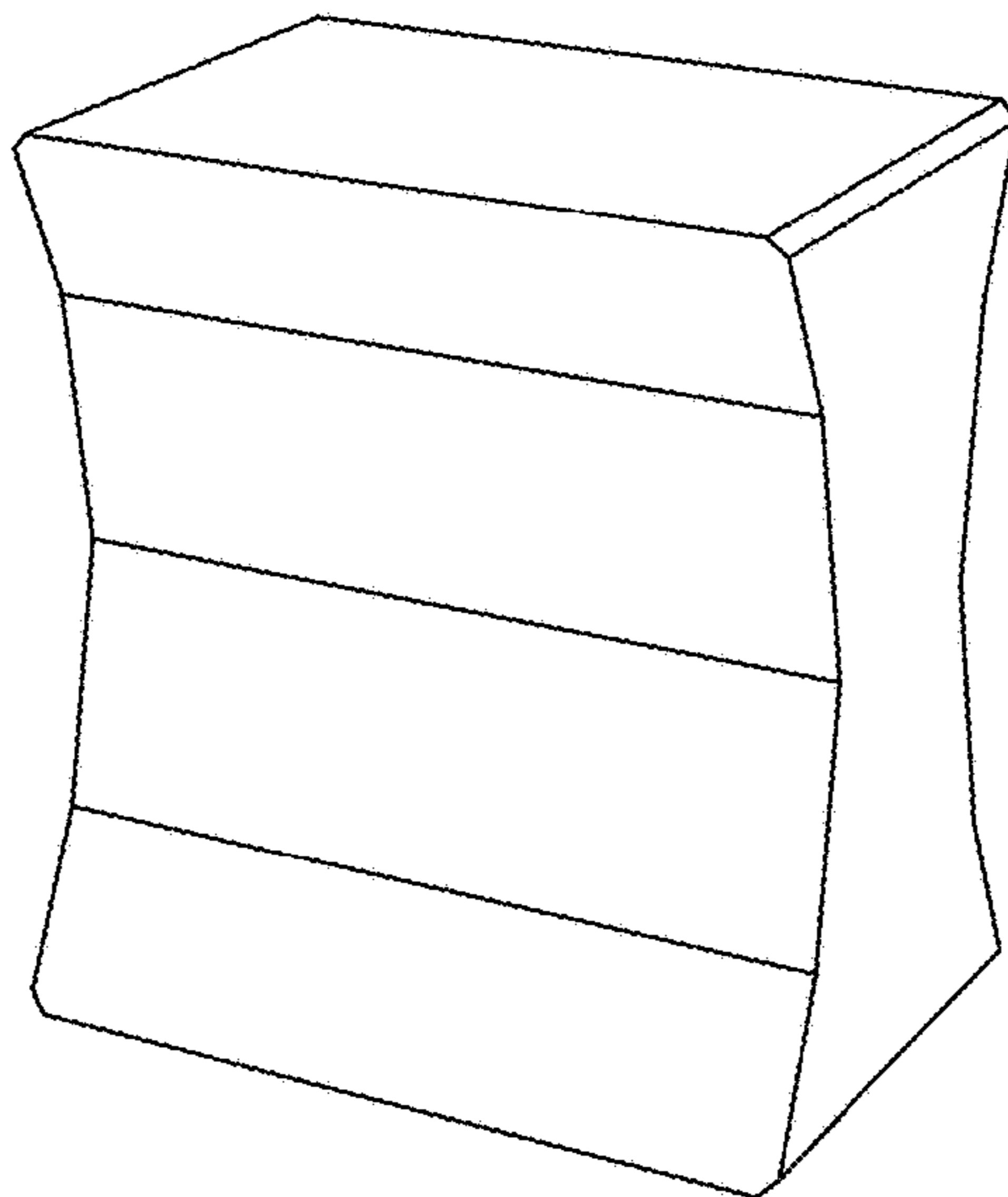


FIG. 4

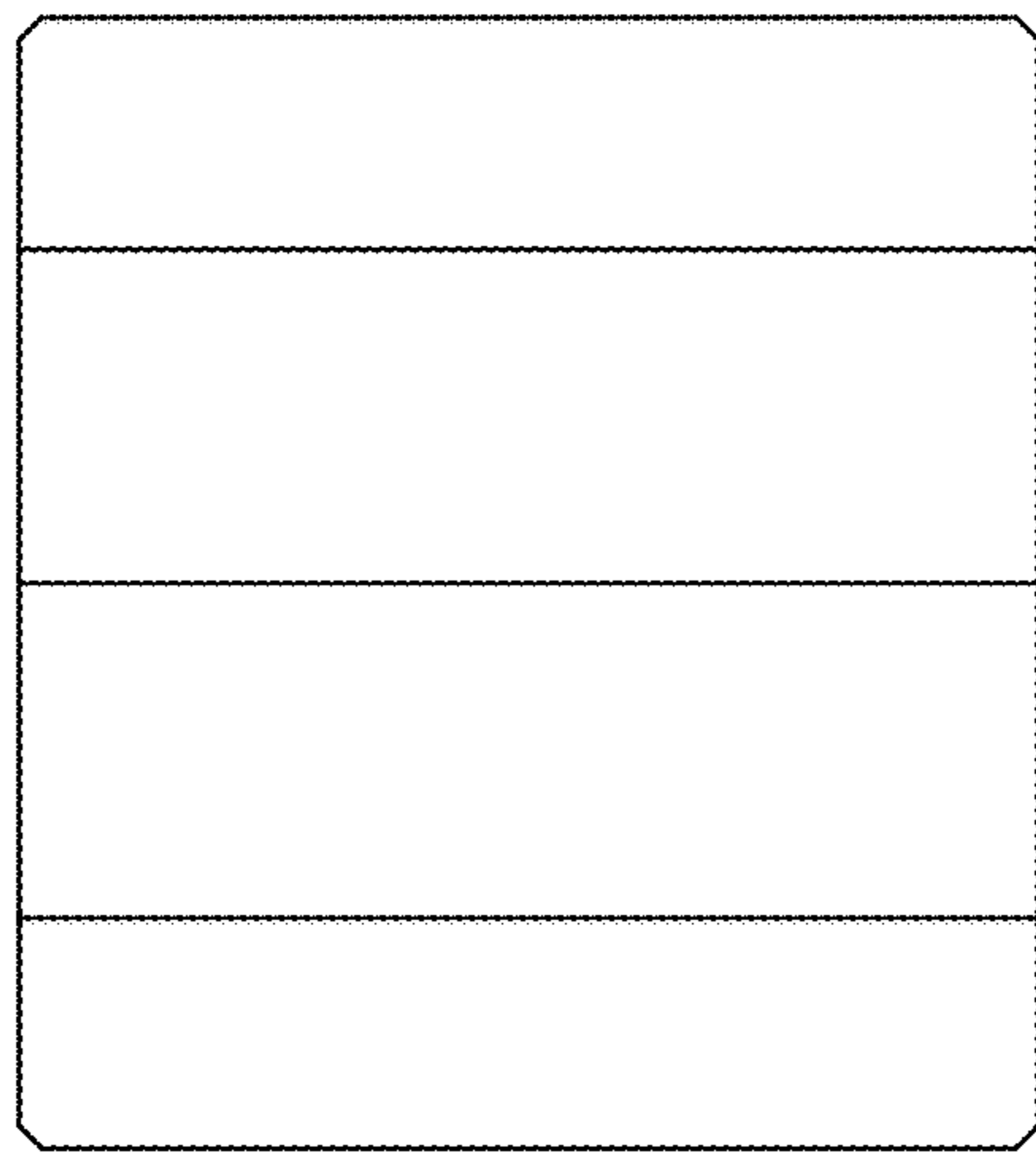


FIG. 5

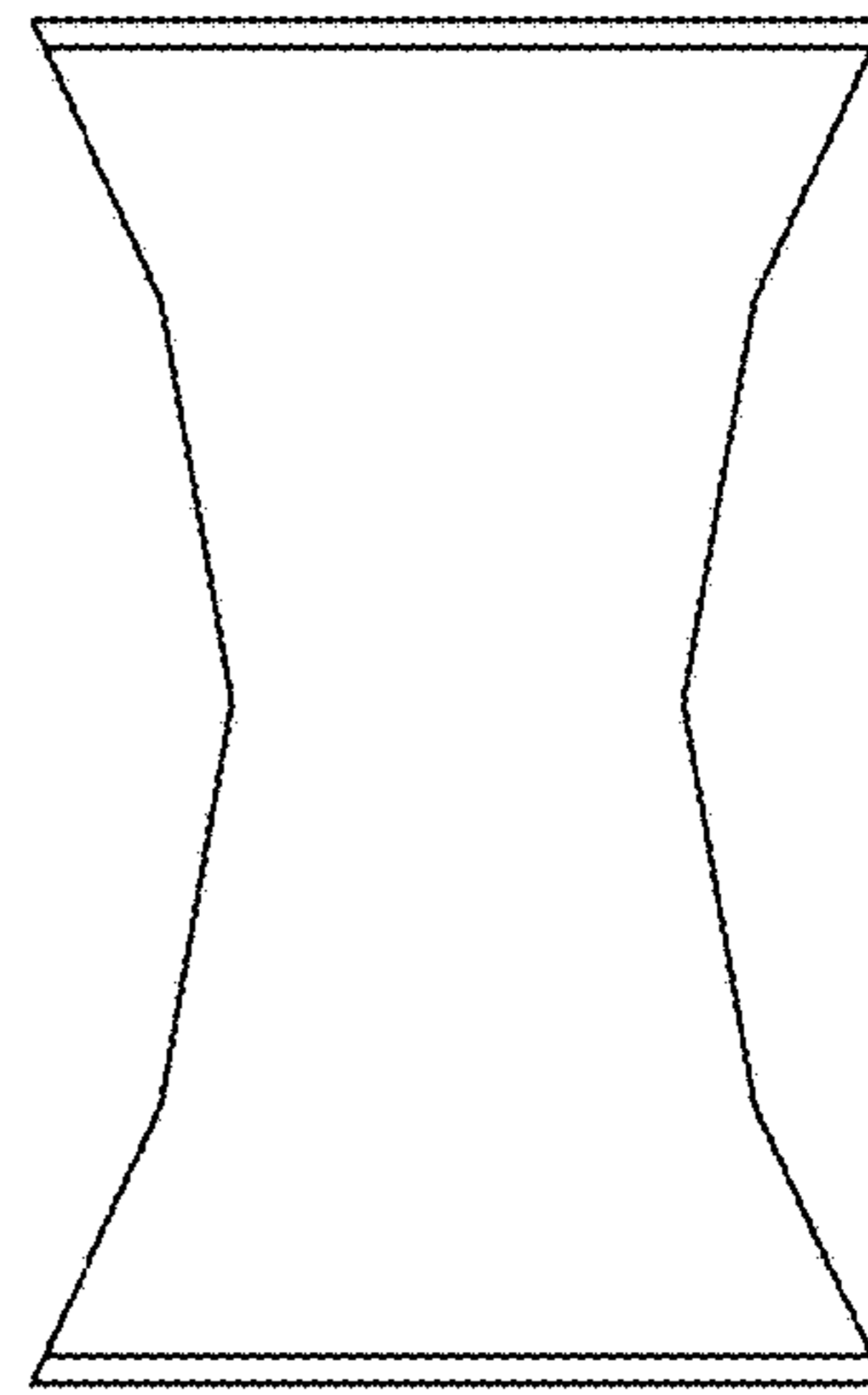


FIG. 6

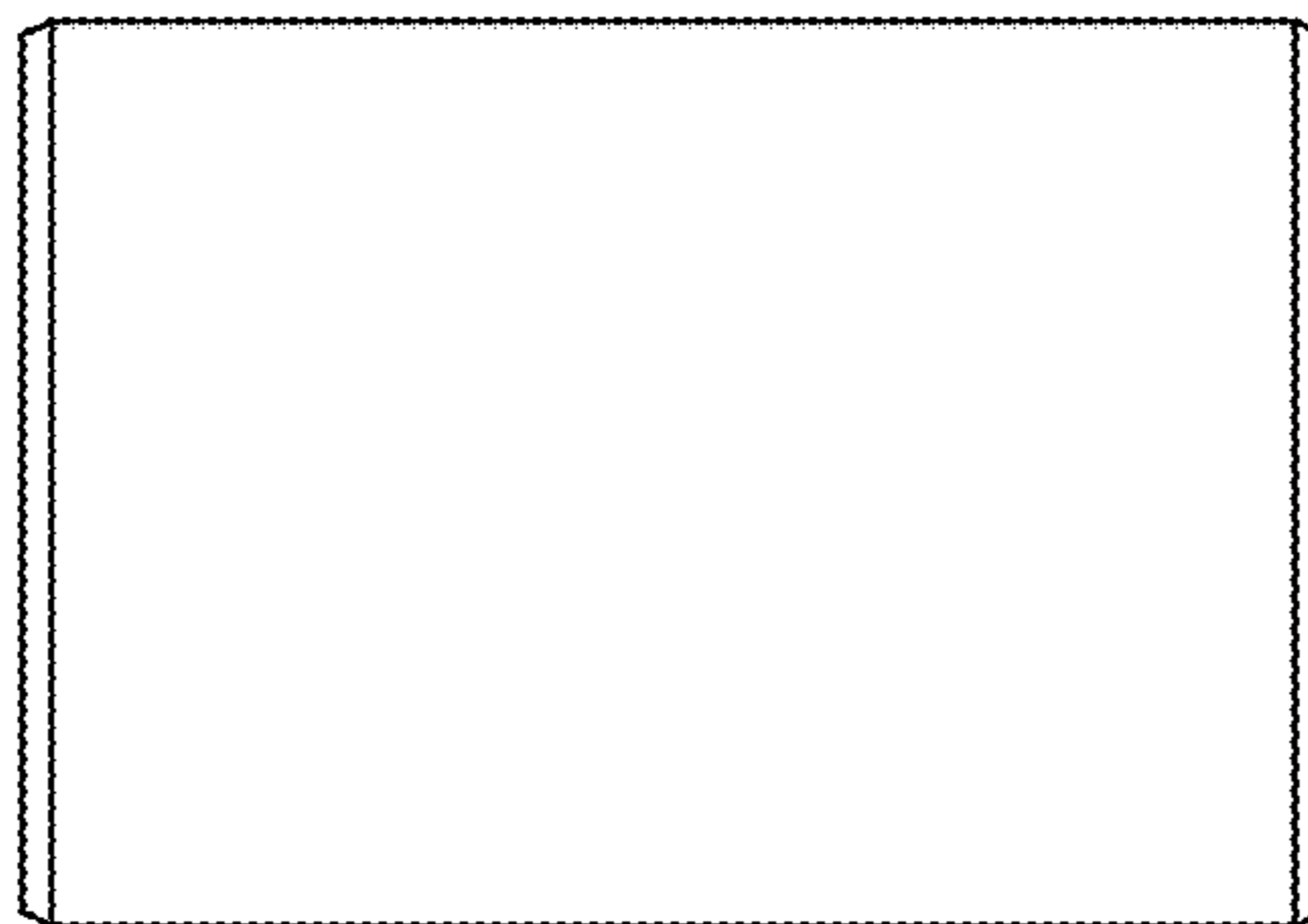


FIG. 7