



US00D804610S

(12) **United States Design Patent** (10) **Patent No.:** **US D804,610 S**  
**Rubio et al.** (45) **Date of Patent:** **\*\* Dec. 5, 2017**

(54) **BIOREACTOR FOR TREATING BIODEGRADABLE CORN WASTEWATERS**

(56) **References Cited**

U.S. PATENT DOCUMENTS

(71) Applicant: **INVESTIGACION TECNICA AVANZADA, S.A. DE C.V.**, Guadalupe (MX)

5,348,803	A *	9/1994	Schlaemus .....	C02F 1/681 210/610
D372,307	S *	7/1996	Barringer .....	D23/208
D375,549	S *	11/1996	Sauer .....	D24/101
D516,668	S *	3/2006	Costa .....	D23/208
D592,273	S *	5/2009	Eisch .....	D23/207
D612,906	S *	3/2010	Reid .....	D23/209
D615,149	S *	5/2010	Reid .....	D23/209
D666,286	S *	8/2012	Chery .....	D24/101
8,673,150	B2 *	3/2014	Pearson .....	C02F 3/343 210/606

(72) Inventors: **Felipe A. Rubio**, Edinburg, TX (US); **Roberto Contreras Medellin**, Guadalupe (MX); **Ruben Trevino Quintanilla**, Guadalupe (MX)

(73) Assignee: **GRUMA S.A.B. DE C.V.**, San Pedro Garza Garcia (MX)

\* cited by examiner

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

*Primary Examiner* — Robin V Webster

(21) Appl. No.: **29/542,023**

(74) *Attorney, Agent, or Firm* — Young & Thompson

(22) Filed: **Oct. 9, 2015**

(57) **CLAIM**

The ornamental design for a bioreactor for treating biodegradable corn wastewaters, as shown and described.

(30) **Foreign Application Priority Data**

**DESCRIPTION**

Aug. 6, 2015 (MX) ..... MX/f/2015-002431

(51) **LOC (10) Cl.** ..... **23-01**

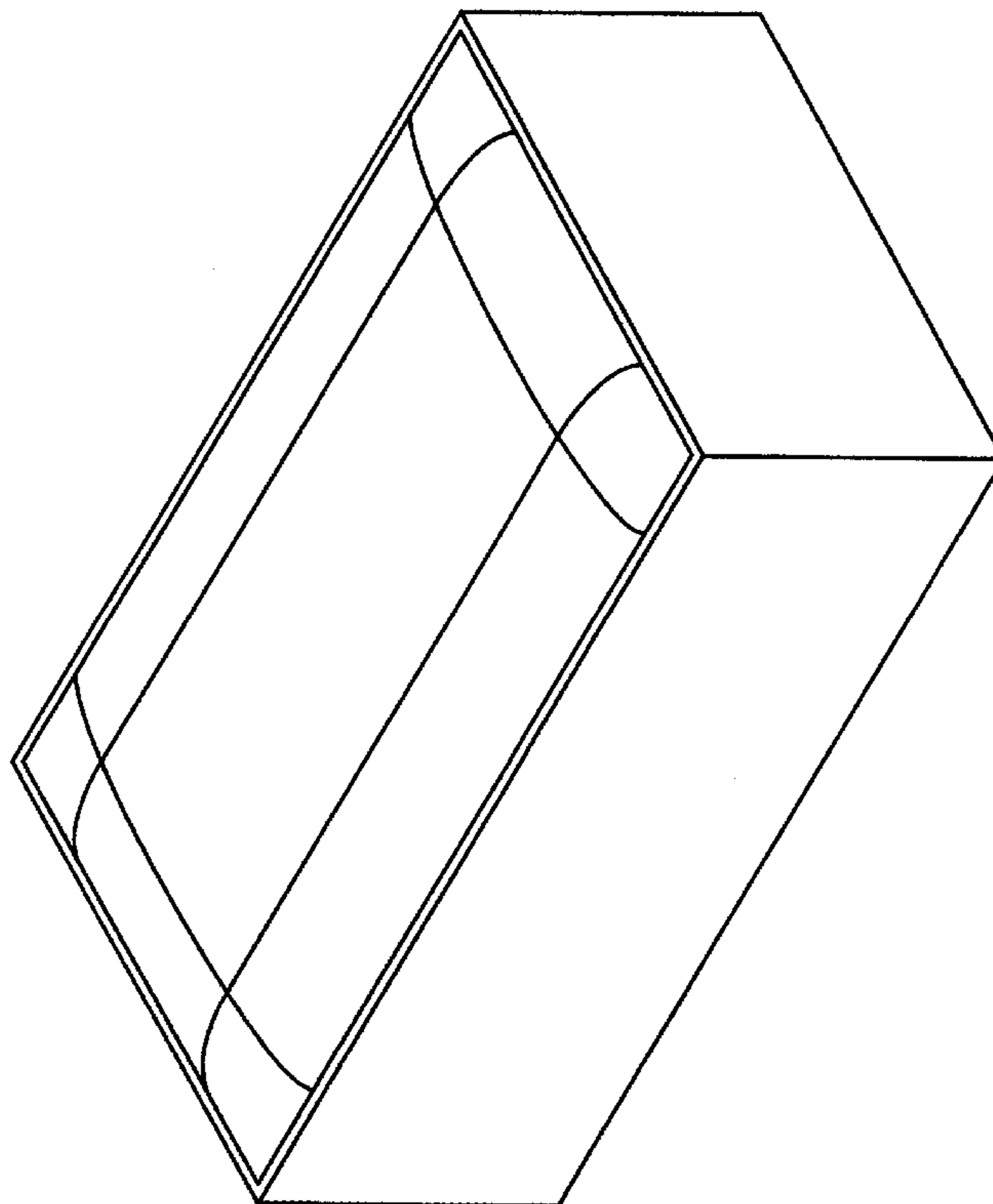
(52) **U.S. Cl.**  
USPC ..... **D23/207; D24/101**

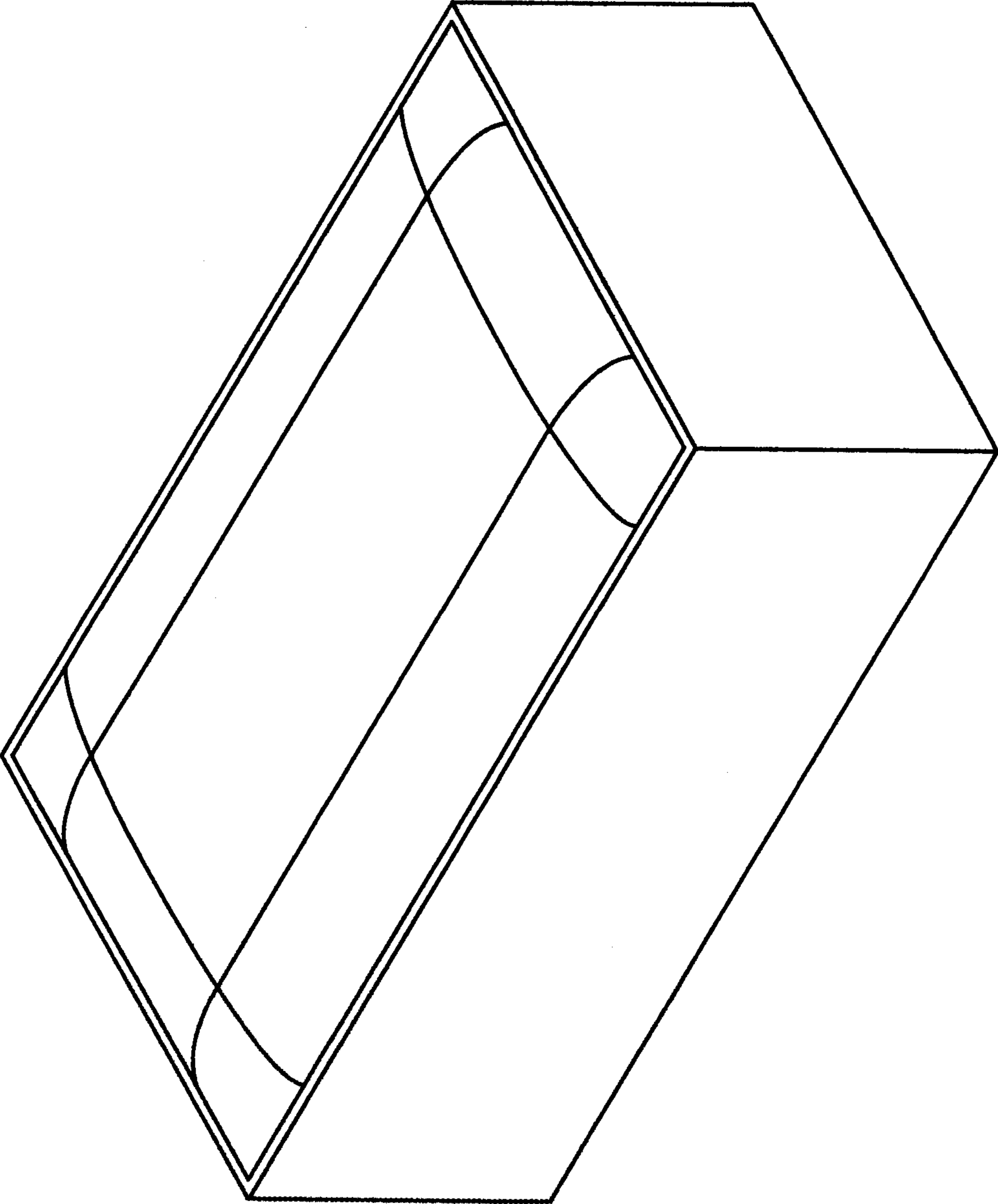
(58) **Field of Classification Search**  
USPC ..... **D23/207-209; 210/601, 605, 610; D24/101**

FIG. 1 is a top, front and left side perspective view of a bioreactor for treating biodegradable corn wastewaters; FIG. 2 is a top plan view thereof; FIG. 3 is both a front and rear elevation view thereof; and, FIG. 4 is both a left side and right side elevation view thereof.

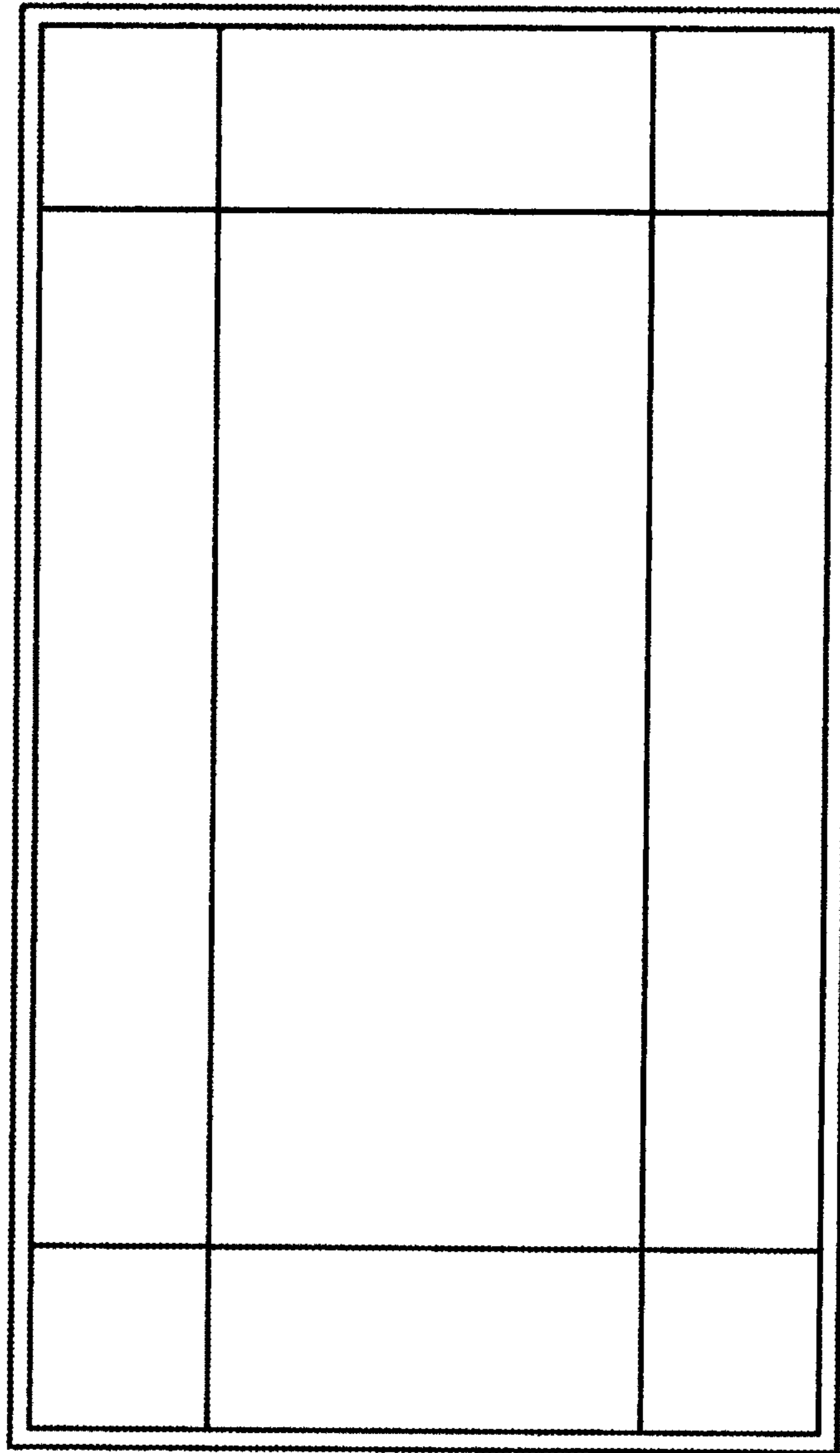
See application file for complete search history.

**1 Claim, 4 Drawing Sheets**

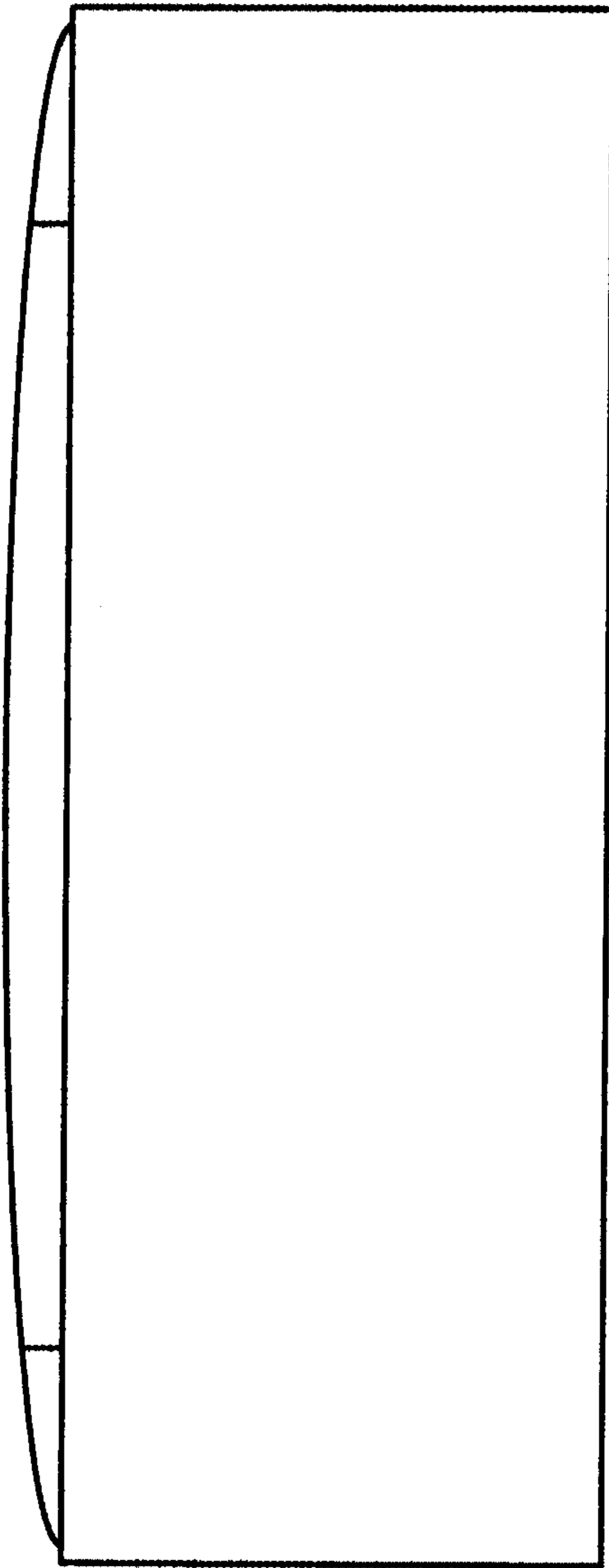




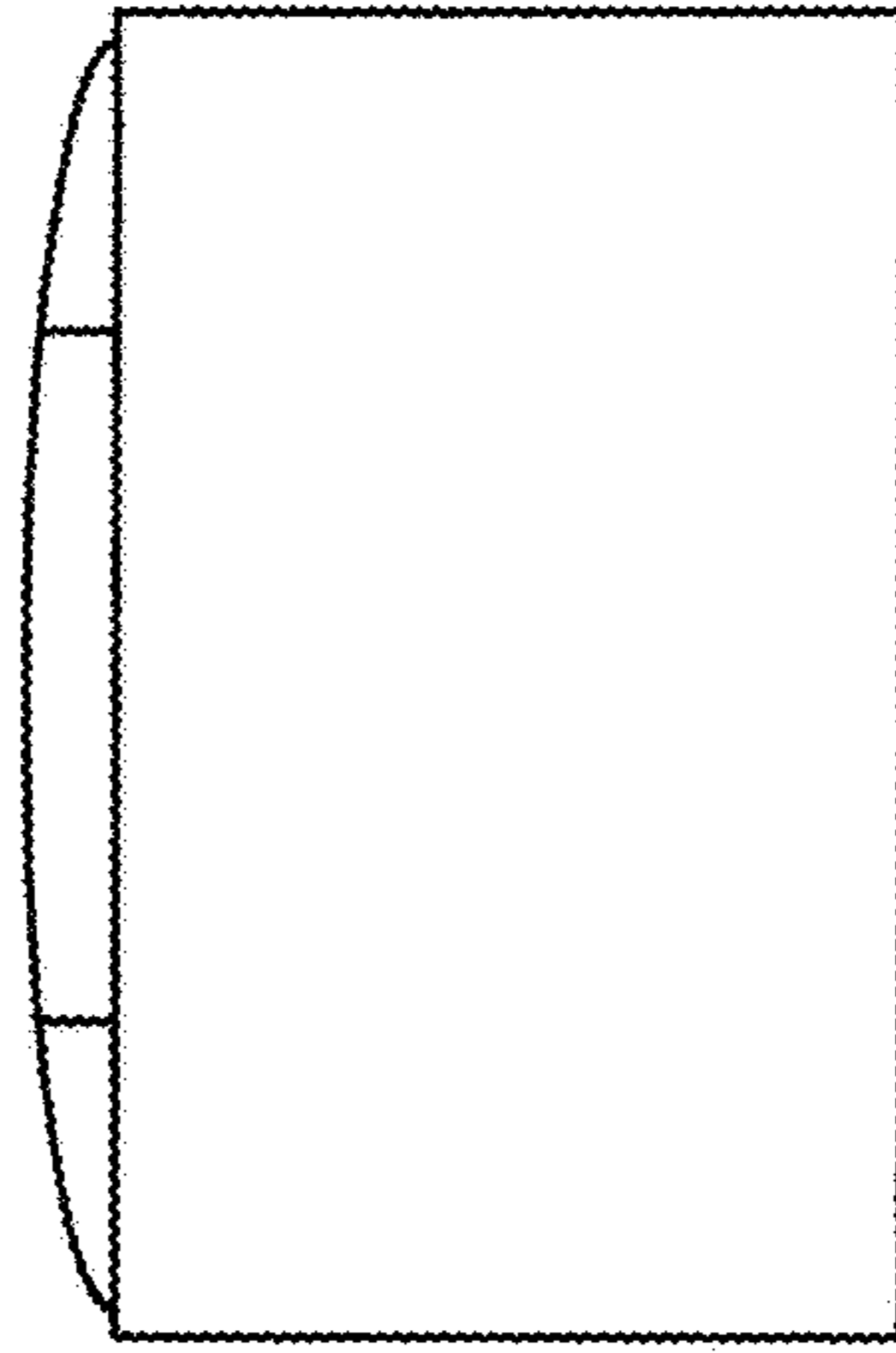
**FIGURE 1**



**FIGURE 2**



**FIGURE 3**



**FIGURE 4**