



US00D456429S

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

(10) **Patent No.:** **US D456,429 S**

(45) **Date of Patent:** **\*\* Apr. 30, 2002**

(54) **FEED HOUSING LINER FOR A  
HYDROCYCLONE FEED ASSEMBLY**

(75) **Inventors:** **Brian Leslie Rogers**, Woronora  
Heights; **Michael Arthur West**, Frenchs  
Forest, both of (AU)

(73) **Assignee:** **Warman International Limited (AU)**

(\*\*) **Term:** **14 Years**

(21) **Appl. No.:** **29/115,789**

(22) **Filed:** **Dec. 22, 1999**

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 29/075,282, filed on  
Aug. 26, 1997, now abandoned.

(30) **Foreign Application Priority Data**

Feb. 26, 1997 (AU) ..... 595/97

(51) **LOC (7) Cl.** ..... **15-09**

(52) **U.S. Cl.** ..... **D15/147**

(58) **Field of Search** ..... D15/145-147,  
D15/199; 209/732, 11, 721, 728, 734; 210/512.2,  
175, 787

(56) **References Cited**

**U.S. PATENT DOCUMENTS**

- 2,532,885 A \* 12/1950 Berges ..... 209/728
- 3,385,437 A \* 5/1968 Woodruff ..... 209/734
- 3,901,794 A \* 8/1975 Henne et al. .... 209/11
- 4,175,036 A \* 11/1979 Frykhult ..... 209/734

- 4,361,490 A \* 11/1982 Saget ..... 210/787
- 4,390,419 A \* 6/1983 Barthelmess ..... 209/11
- 4,409,097 A \* 10/1983 Barthelmess ..... 209/11
- 4,541,934 A \* 9/1985 Hakola ..... 210/787
- 4,652,363 A \* 3/1987 Miller ..... 209/734
- D294,363 S \* 2/1988 Donhauser ..... D15/147
- 4,956,091 A \* 9/1990 Akker ..... 210/512.2
- 5,305,889 A \* 4/1994 Ganz ..... 209/734
- 5,651,466 A \* 7/1997 Satomi ..... 209/734
- 5,858,237 A \* 1/1999 Hashmi et al. .... 210/512.2
- 5,901,853 A \* 5/1999 Singleton, Jr. .... 210/787
- 5,951,877 A \* 9/1999 Langley et al. .... 210/782
- 6,129,217 A \* 10/2000 Trickey et al. .... 209/732

\* cited by examiner

*Primary Examiner*—Cathy Anne MacCormac

(74) *Attorney, Agent, or Firm*—Collier Shannon Scott,  
PLLC

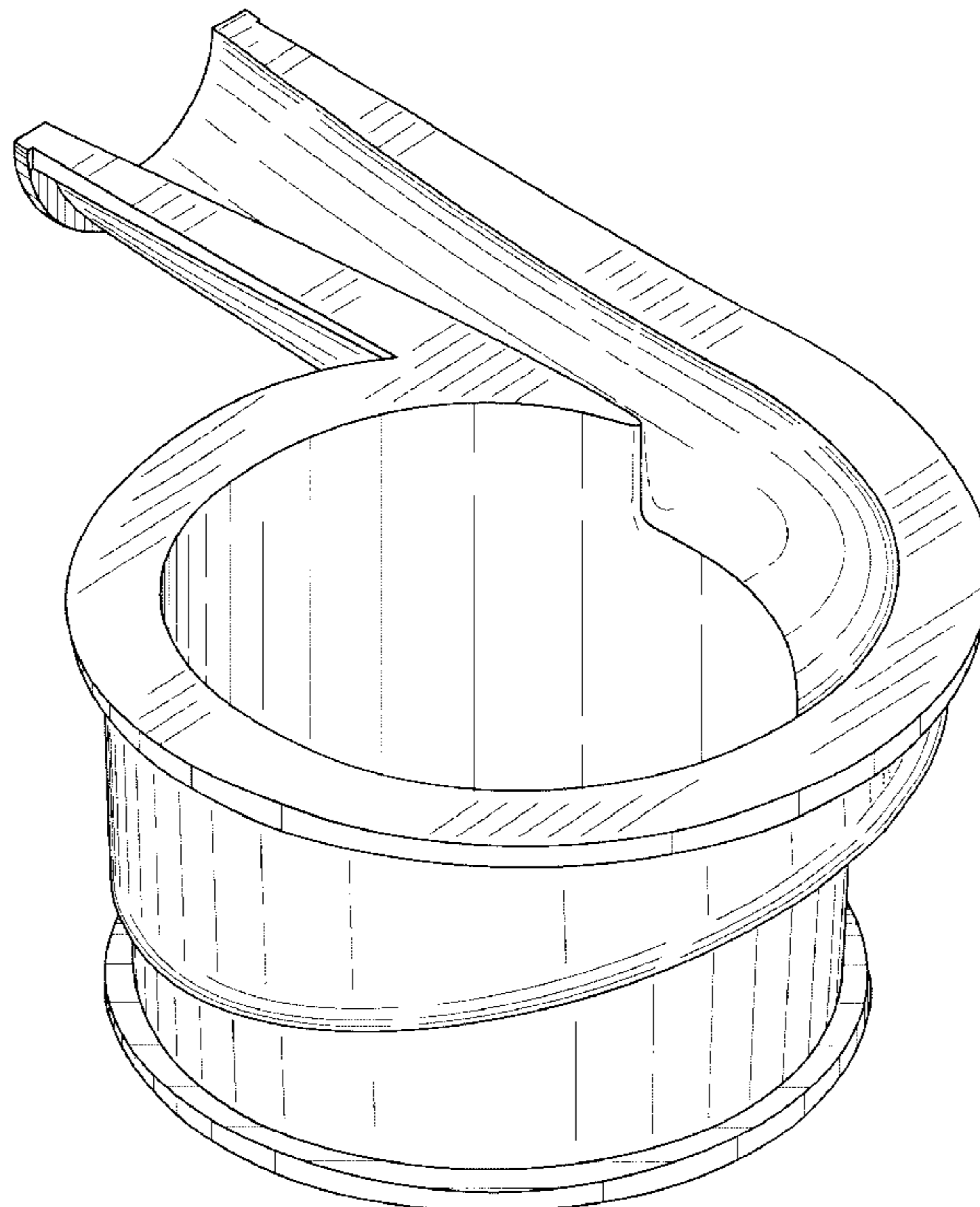
(57) **CLAIM**

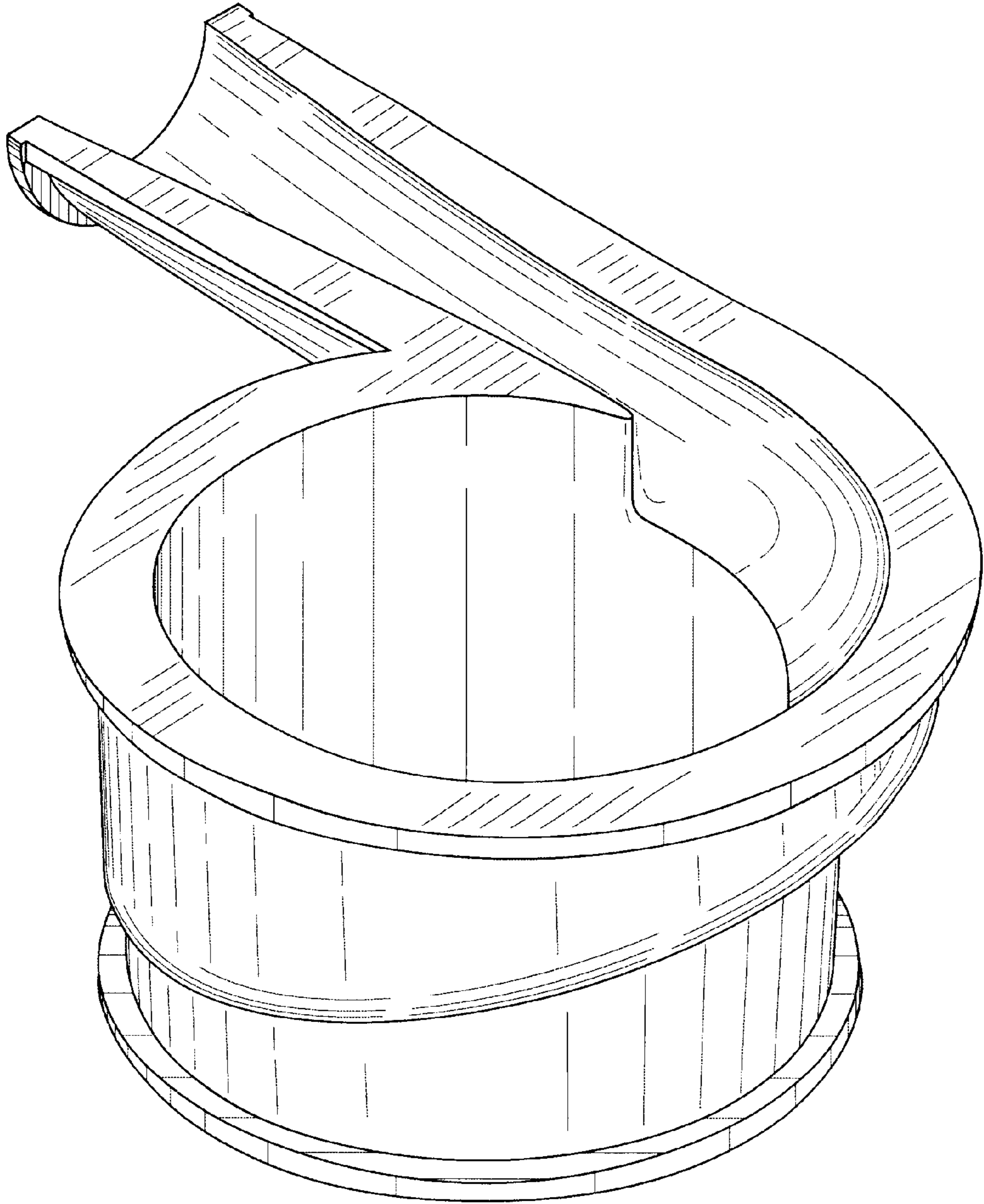
The ornamental design for a feed housing liner for a hydro-  
cyclone feed assembly, as shown and described.

**DESCRIPTION**

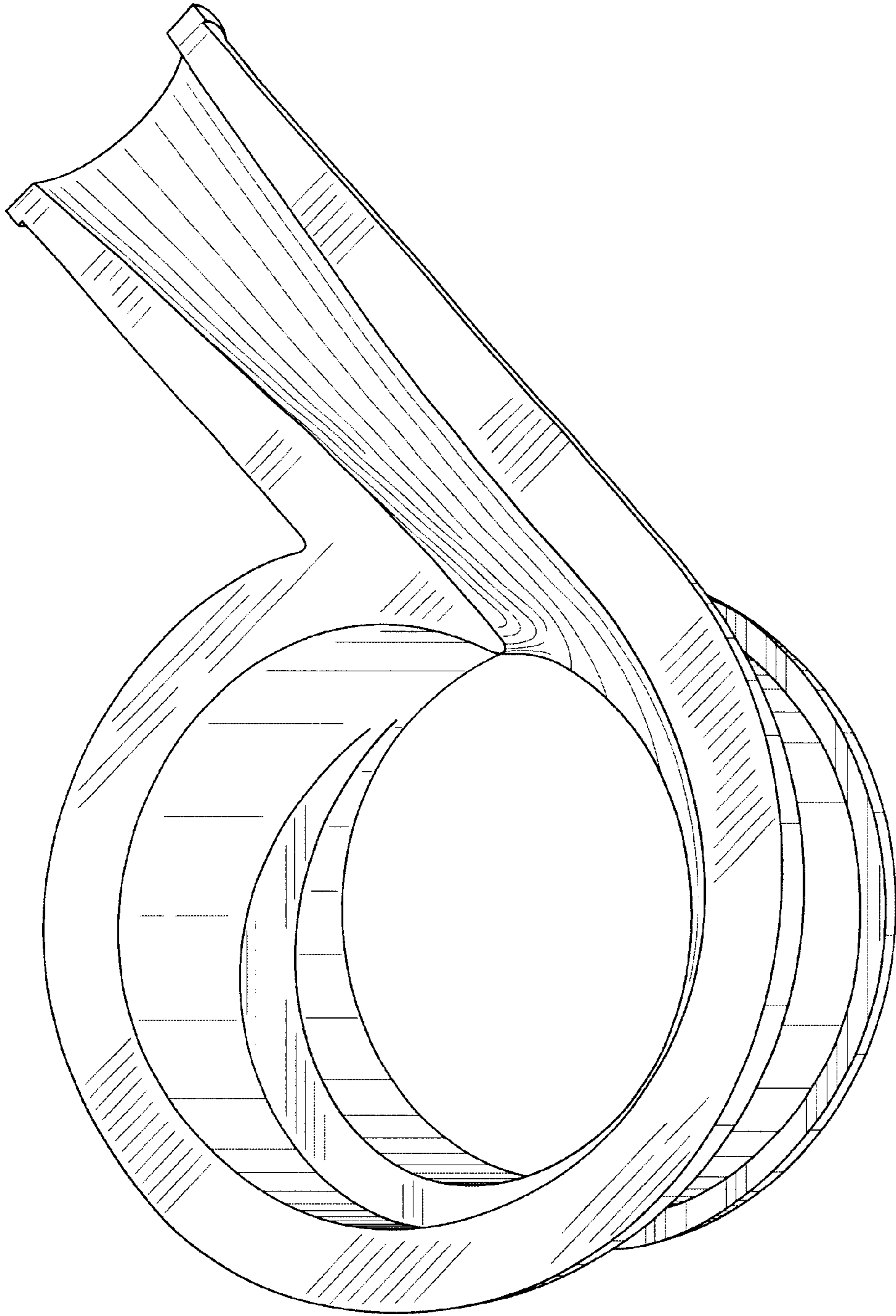
FIG. 1 is a right, front perspective view of a feed housing  
liner for a hydrocyclone feed assembly;  
FIG. 2 is a top perspective view thereof;  
FIG. 3 is a bottom plan view thereof;  
FIG. 4 is a top plan view thereof;  
FIG. 5 is a rear elevational view thereof;  
FIG. 6 is a front elevational view thereof;  
FIG. 7 is a right elevational view thereof; and,  
FIG. 8 is a left elevational view thereof.

**1 Claim, 8 Drawing Sheets**



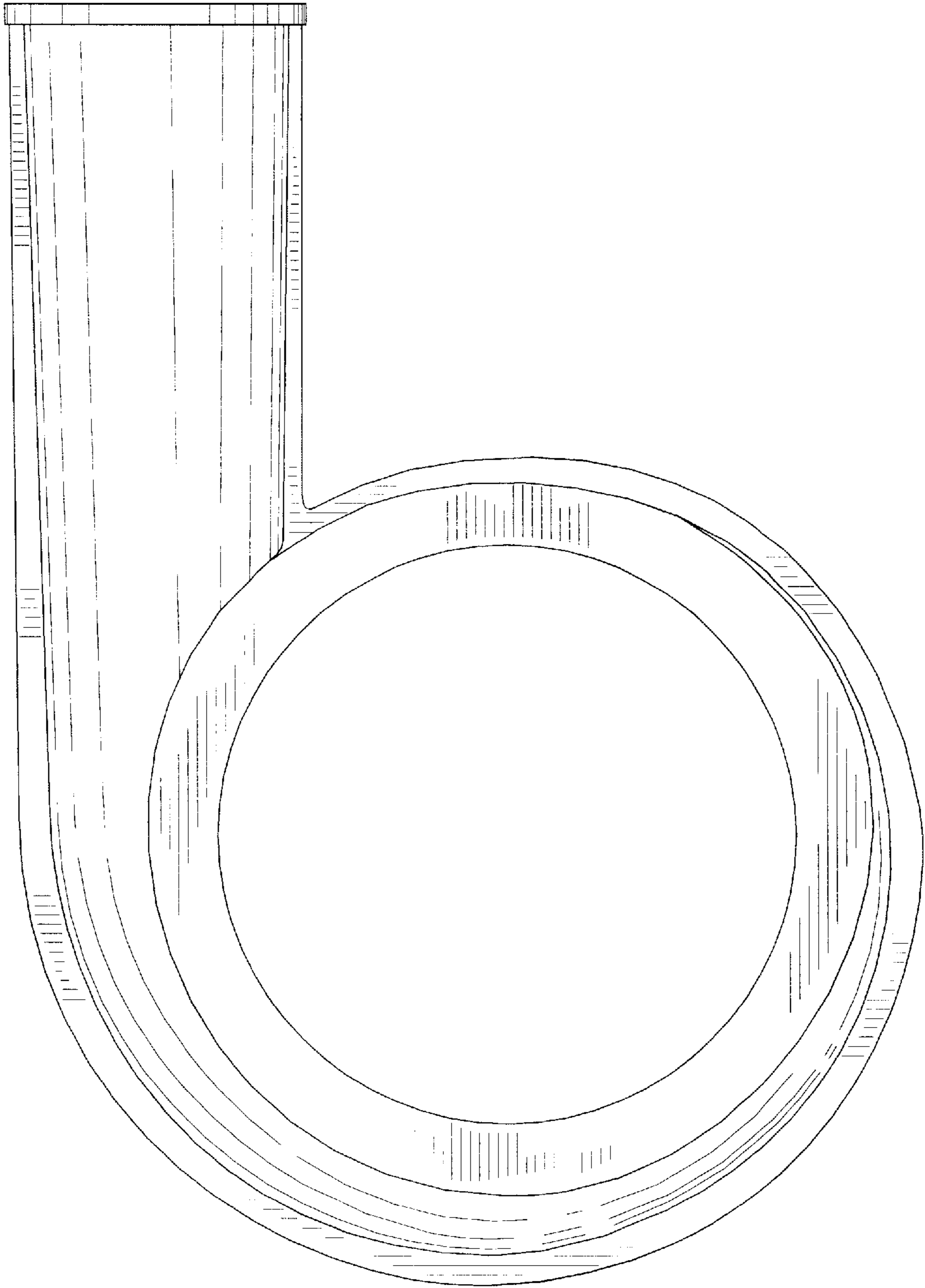


**FIG. 1**

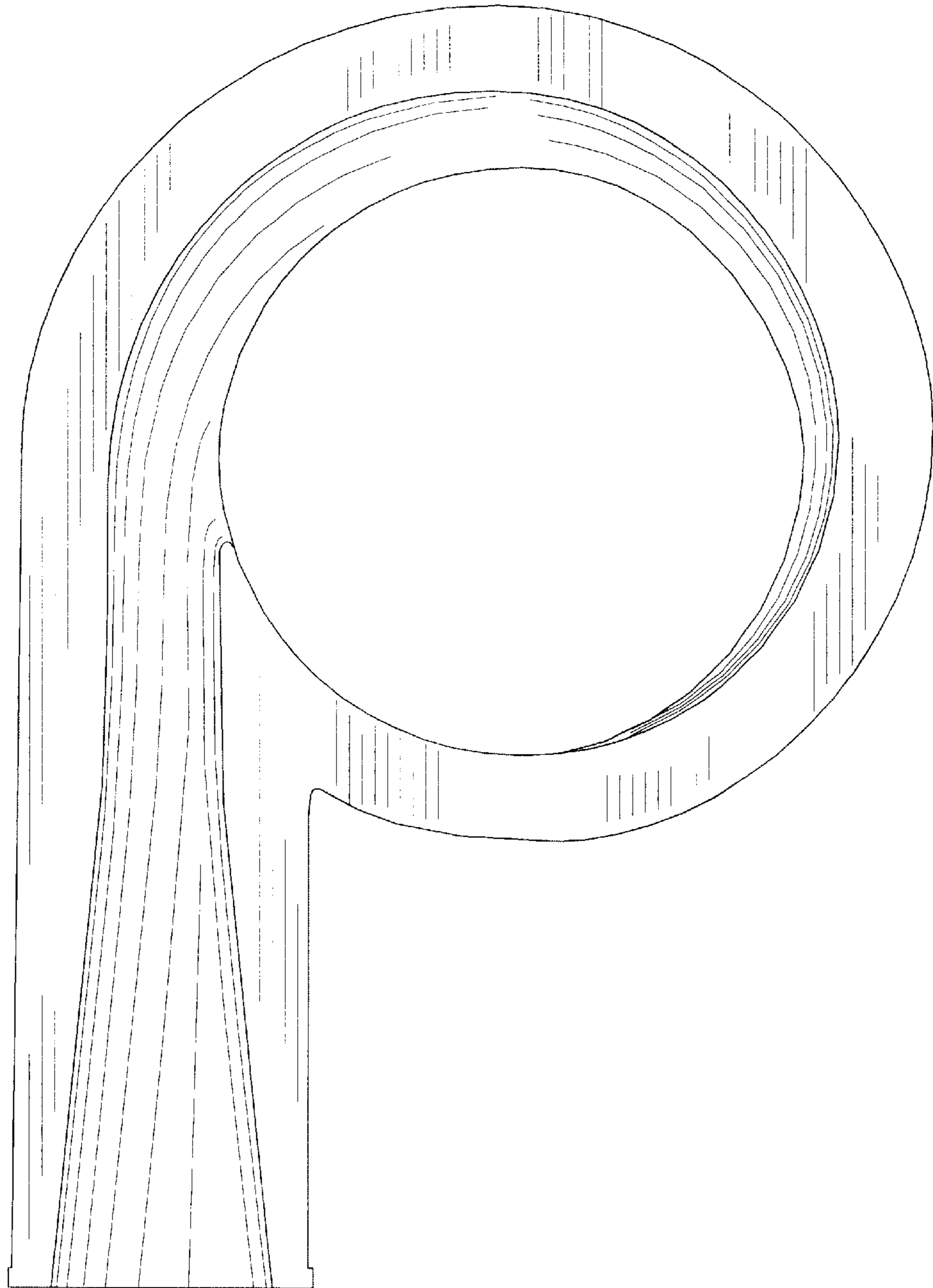


**FIG. 2**

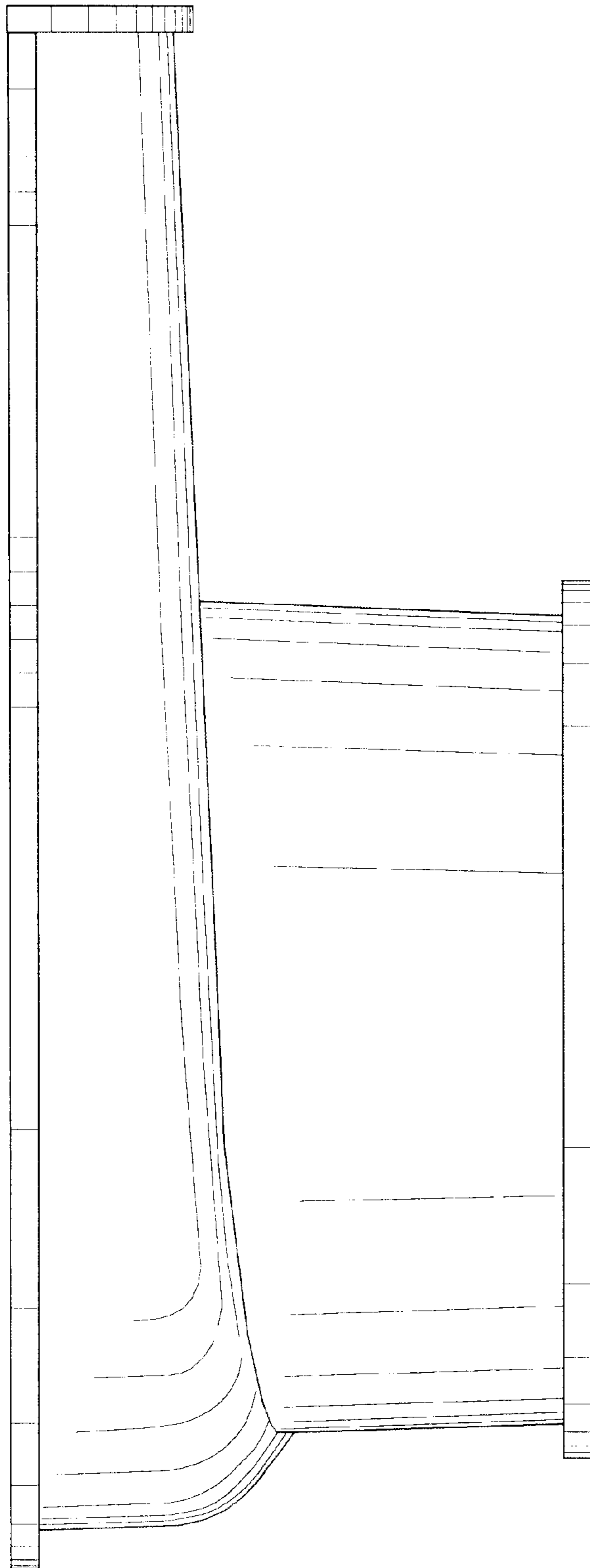




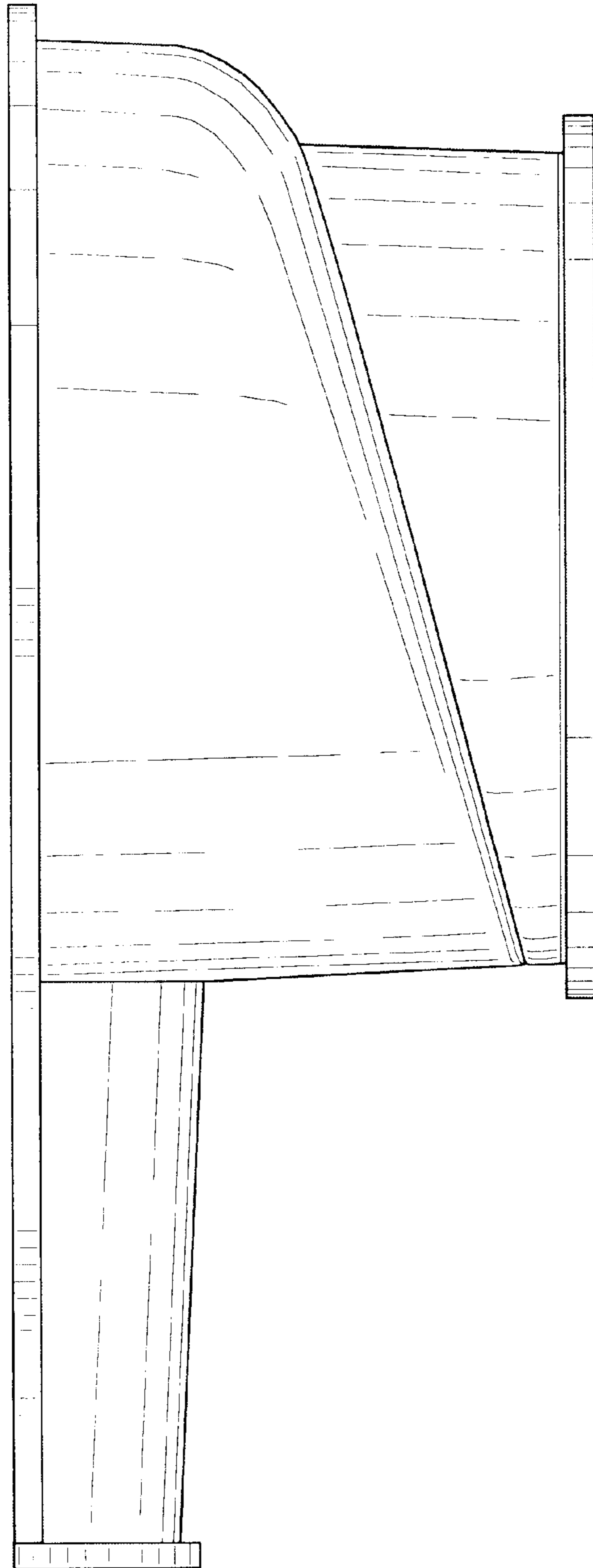
**FIG. 3**



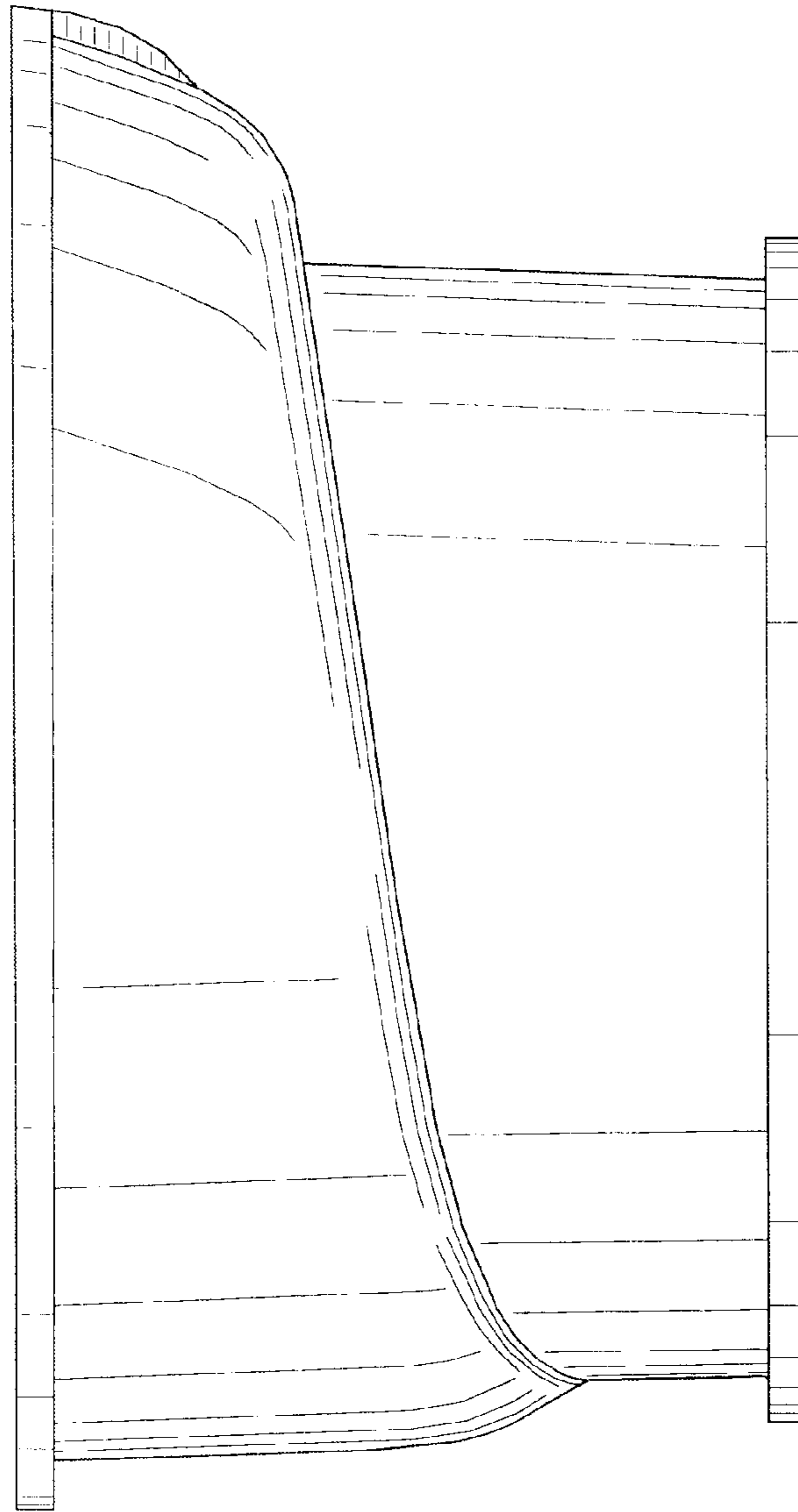
**FIG. 4**



**FIG. 5**

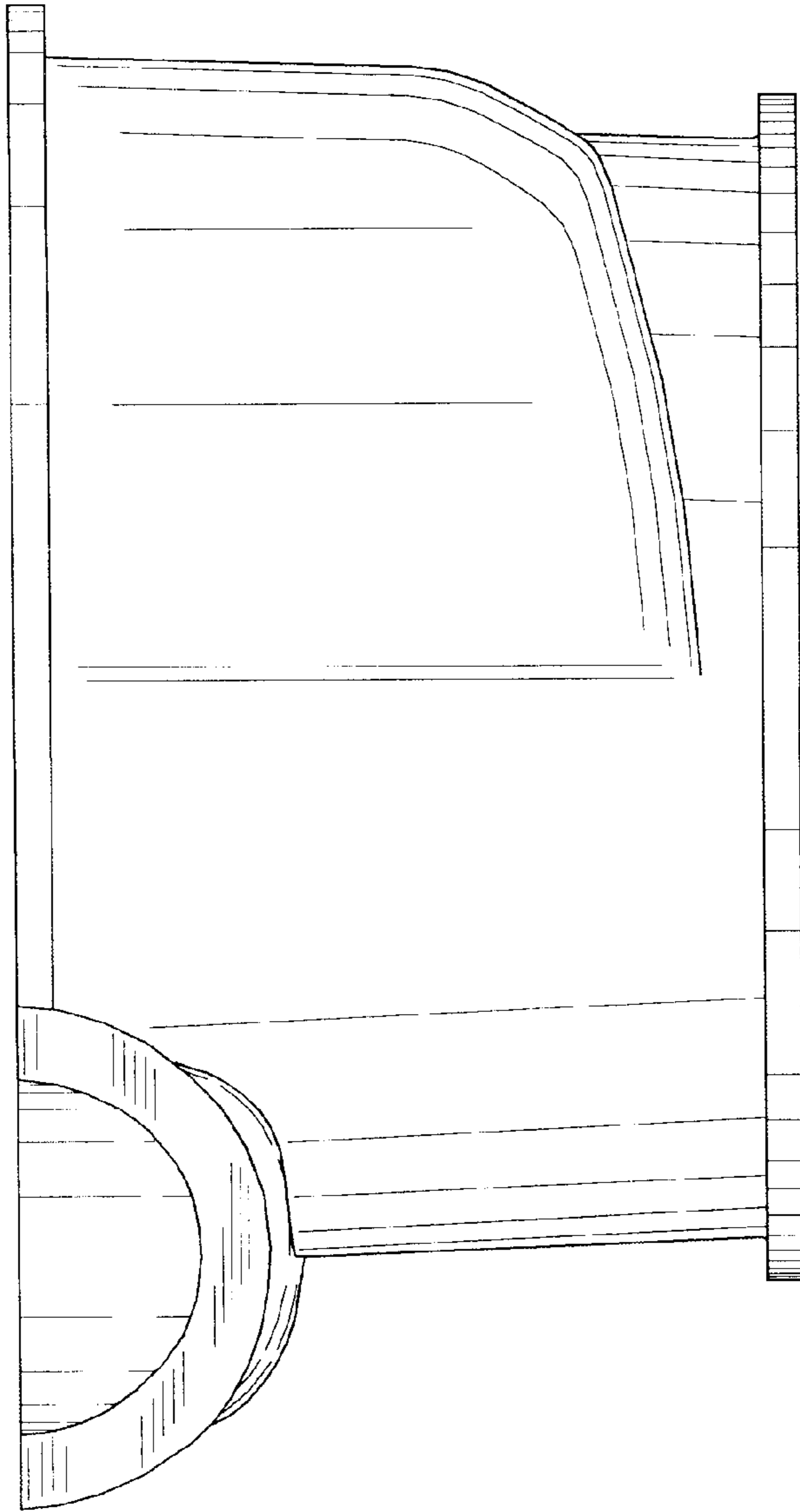


**FIG. 6**



**FIG. 7**





**FIG. 8**