



US00D749726S

(12) **United States Design Patent**  
**Ponganis**

(10) **Patent No.:** **US D749,726 S**  
(45) **Date of Patent:** **\*\* Feb. 16, 2016**

(54) **SURGICAL INSTRUMENT SHAFT WITH HOLE PATTERN**

6,969,373 B2 11/2005 Schwartz et al.  
D593,202 S \* 5/2009 Petersen ..... D24/146  
D596,669 S \* 7/2009 Dhesse et al. .... D19/199

(71) Applicant: **INTUITIVE SURGICAL OPERATIONS, INC.**, Sunnyvale, CA (US)

(Continued)

FOREIGN PATENT DOCUMENTS

(72) Inventor: **Denise Ponganis**, Milpitas, CA (US)

WO WO-2015023772 A1 2/2015

OTHER PUBLICATIONS

(73) Assignee: **INTUITIVE SURGICAL OPERATIONS, INC.**, Sunnyvale, CA (US)

Design U.S. Appl. No. 29/464,364, filed Aug. 15, 2013.

(Continued)

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

*Primary Examiner* — Wan Laymon  
*Assistant Examiner* — Mark Booker

(21) Appl. No.: **29/464,362**

(22) Filed: **Aug. 15, 2013**

(57) **CLAIM**

The ornamental design for a surgical instrument shaft with hole pattern, as shown and described.

(51) **LOC (10) Cl.** ..... **24-02**

(52) **U.S. Cl.**  
USPC ..... **D24/133**

**DESCRIPTION**

(58) **Field of Classification Search**  
USPC ..... D24/133, 138, 144, 147, 146; D19/199, D19/200, 203, 204; D8/98, 198; 606/1, 606/166-167  
CPC .... A61B 1/00002; A61B 1/018; A61B 1/005; A61B 1/0125; A61B 1/008; A61B 1/24; A61B 1/00; A61B 1/54; A61B 17/00; A61B 1/04

FIG. 1 is a perspective view of a surgical instrument shaft with hole pattern of my new design, the outer broken lines of even length indicating a portion of the shaft with the hole pattern, and the dotted lines indicating environmental structure; FIG. 2 is a top plan view thereof, the outer broken lines of even length indicating a portion of the shaft with the hole pattern, and the dotted lines indicating environmental structure; the bottom view being a mirror image thereof; and, FIG. 3 is a first side view thereof, the outer broken lines of even length indicating a portion of the shaft with the hole pattern, and the dotted lines indicating environmental structure; the opposite side view being a mirror image thereof.

See application file for complete search history.

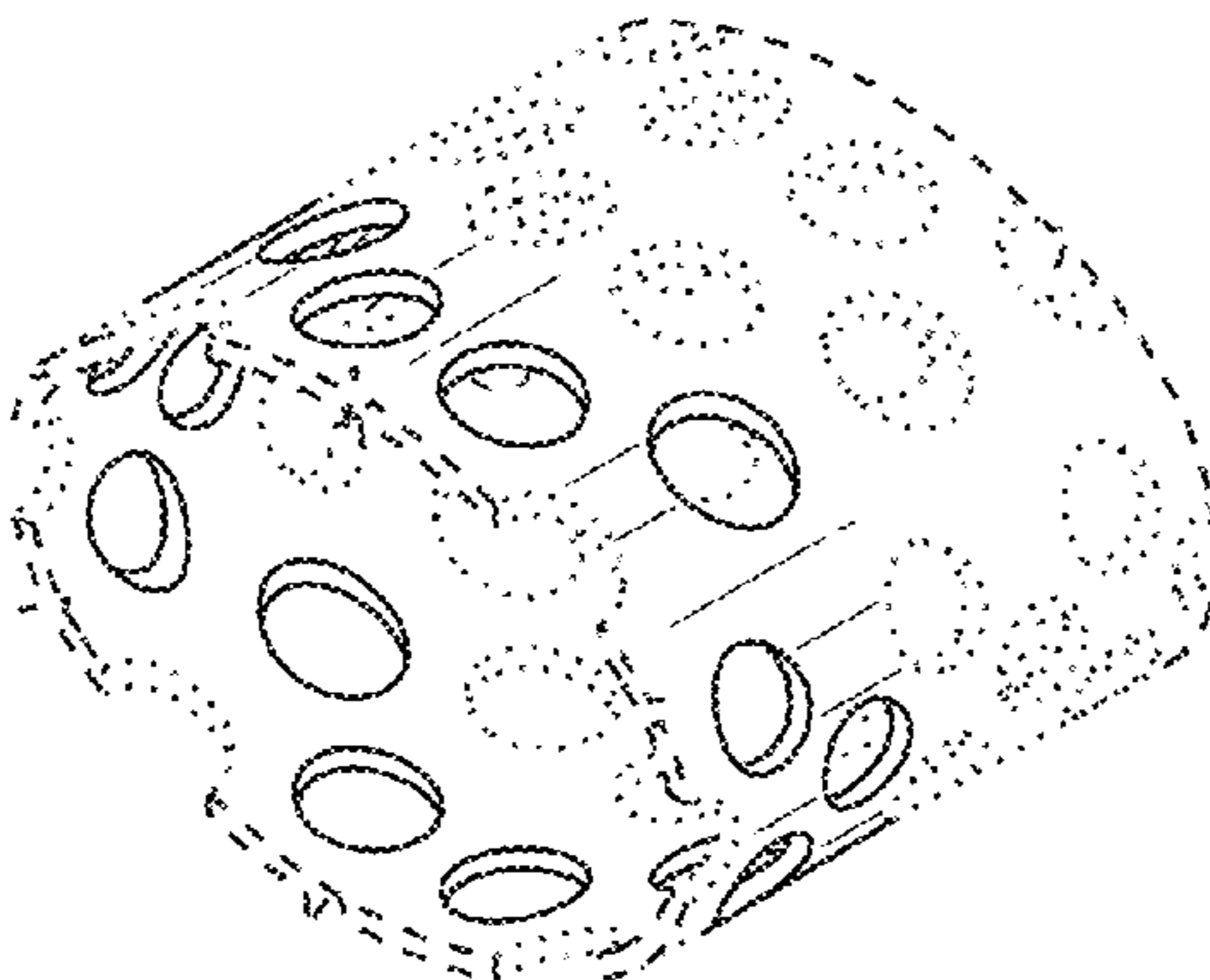
The environmental structure depicted in broken lines of even length and in dotted lines forms no part of the claimed design. The surface shading lines also form no part of the claimed design but are intended to depict curvature of the shaft that includes the claimed hole pattern. Portions of the article beyond the broken away symbols form no part of the claimed design.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,635,641 A 1/1972 Garland  
D242,828 S 12/1976 Lahay  
D305,295 S 1/1990 Momany  
D421,303 S 2/2000 Cote et al.  
D438,903 S 3/2001 Rosenbaum  
D442,282 S 5/2001 Taylor et al.  
D484,912 S \* 1/2004 Briggl ..... D19/199  
D492,350 S \* 6/2004 Morrow ..... D19/199  
D496,730 S 9/2004 Morawski et al.  
D504,513 S 4/2005 Morawski

**1 Claim, 1 Drawing Sheet**



(56)

**References Cited**

U.S. PATENT DOCUMENTS

D618,065 S \* 6/2010 Joy et al. .... D7/624.2  
D618,725 S 6/2010 Cetera  
D628,635 S \* 12/2010 Li ..... D19/184  
D629,259 S \* 12/2010 Joy et al. .... D7/624.2  
D667,880 S \* 9/2012 Zhang ..... D19/173  
D682,938 S 5/2013 Larson  
D692,486 S \* 10/2013 Casciotti et al. .... D19/199  
D700,700 S \* 3/2014 Efinger ..... D24/147  
2005/0043682 A1 2/2005 Kucklick et al.  
2006/0264914 A1\* 11/2006 Furst et al. .... 606/1

2008/0071278 A1\* 3/2008 Assell et al. .... 606/79  
2012/0010628 A1 1/2012 Cooper et al.  
2013/0096540 A1\* 4/2013 Cooper et al. .... 606/1  
2013/0123805 A1 5/2013 Park et al.

OTHER PUBLICATIONS

Design U.S. Appl. No. 29/464,366, filed Aug. 15, 2013.  
Design U.S. Appl. No. 29/464,367, filed Aug. 15, 2013.  
Design U.S. Appl. No. 29/464,369, filed Aug. 15, 2013.  
Design U.S. Appl. No. 29/464,370, filed Aug. 15, 2013.  
U.S. Appl. No. 61/866,311, filed Aug. 15, 2013.

\* cited by examiner

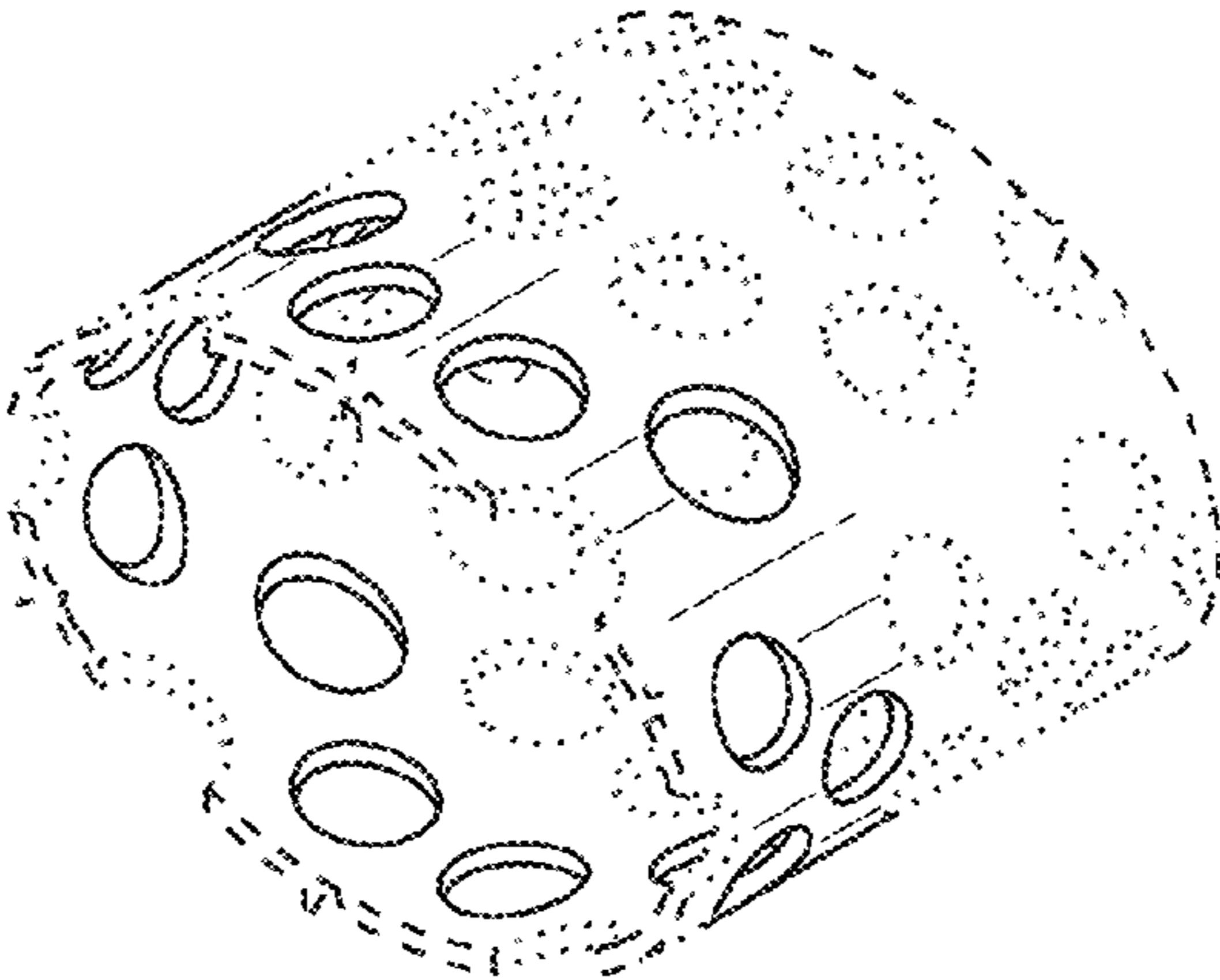


FIG. 1

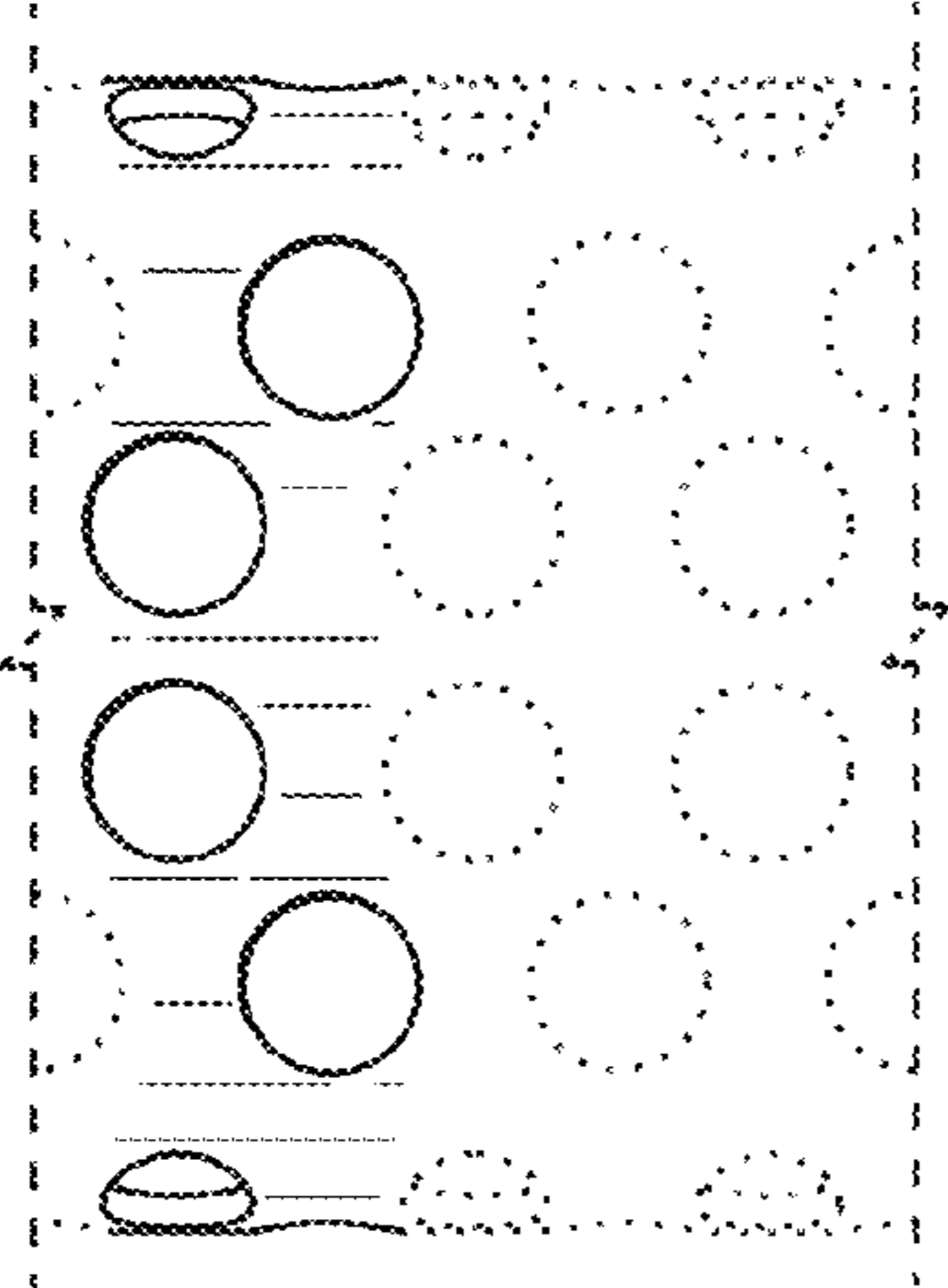


FIG. 2

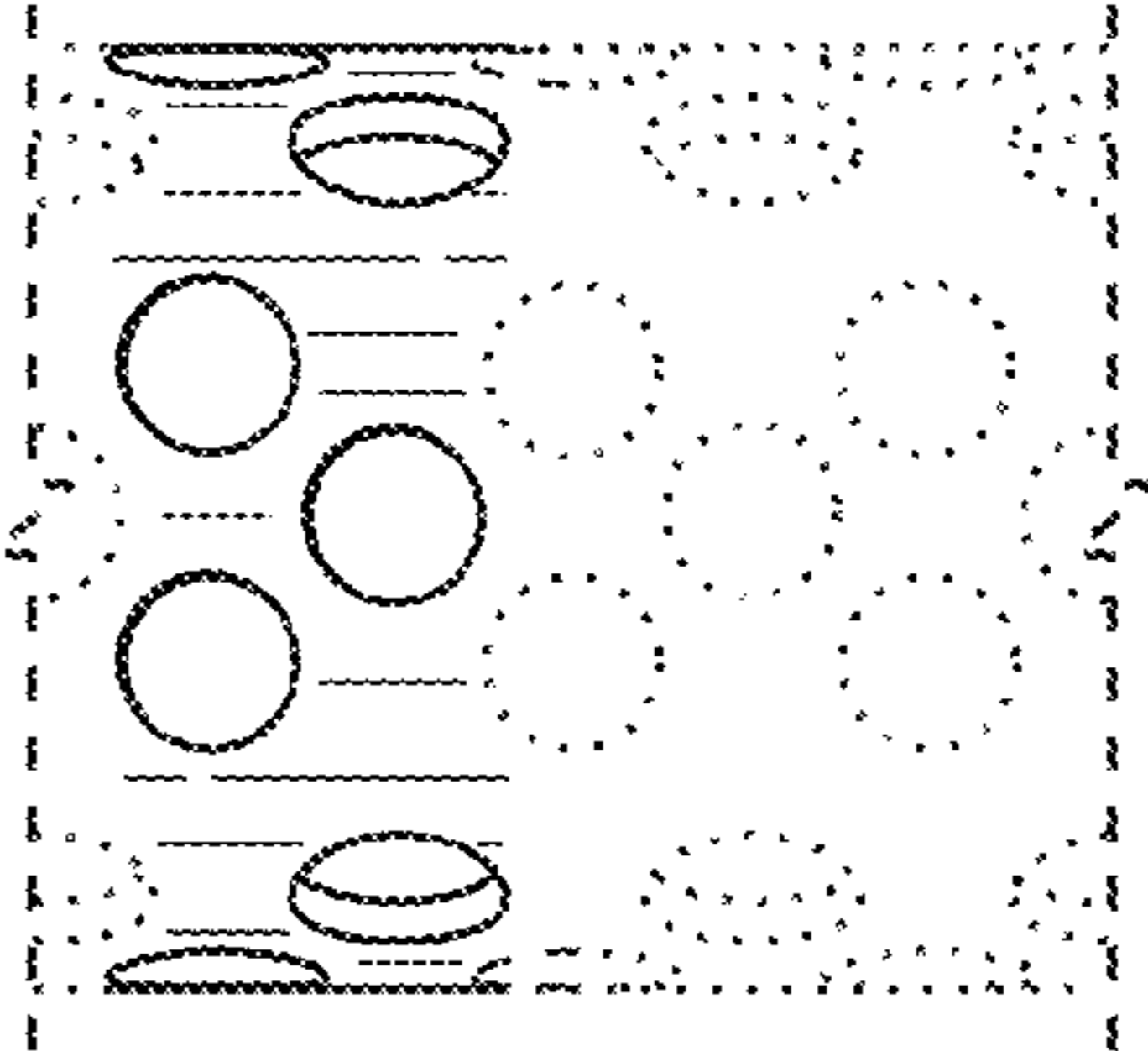


FIG. 3