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# United States Patent [19]

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Geremakis et al.

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[54] **CENTERING CAP FOR A PROSTHETIC HIP STEM**

2104391A 3/1983 United Kingdom .  
2153233A 8/1985 United Kingdom .

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### OTHER PUBLICATIONS

Dow Corning Wright—"Unique Distal Sleeve"—Apr. 1986 JBJS ad.  
Howmedica—"Precision Hip System"—Mar. 1986 JBJS ad.  
S & G Implants—"Implast Bone Cement" ad—No date available.  
Howmedica—"The Exeter Hip"—Nov. 1980 Brit JBJS ad.  
DePuy ad—"The CML Cemented Medullary Locking Hip system"—JBJS, Jul. 1988.  
Osteonics Corp. ad—"Constant Concepts, Evolving Designs"—JBJS, Oct. 1988.

[73] Assignee: **Zimmer, Inc., Warsaw, Ind.**

[\*\*] Term: **14 Years**

[21] Appl. No.: **1,921**

[22] Filed: **Dec. 22, 1986**

[52] U.S. Cl. .... **D24/155**

[58] Field of Search ..... **D24/33, 155; 623/22, 623/23, 16; 128/92 R**

*Primary Examiner*—Stella Reid  
*Attorney, Agent, or Firm*—Margaret L. Geringer

### [56] References Cited

#### U.S. PATENT DOCUMENTS

D. 232,005	7/1974	Farling .....	D83/1 E
3,053,251	9/1962	Black et al. ....	623/23
3,605,123	9/1971	Hahn .....	3/1
3,793,650	2/1974	Ling et al. ....	3/1
4,080,666	3/1978	Fixel .....	3/1.91
4,268,920	5/1981	Engelbrecht et al. ....	3/1.911
4,285,071	8/1981	Nelson et al. ....	3/1.912
4,314,381	2/1982	Koeneman .....	3/1.912
4,404,692	9/1983	Eftekhar .....	3/1.912
4,417,571	11/1983	Nelson et al. ....	128/92 B
4,523,587	6/1985	Frey .....	128/92 C
4,563,778	1/1986	Roche et al. ....	623/22
4,566,138	1/1986	Lewis et al. ....	623/22
4,718,911	1/1988	Kenna .....	623/22
4,752,296	6/1988	Buechel et al. ....	623/23

#### FOREIGN PATENT DOCUMENTS

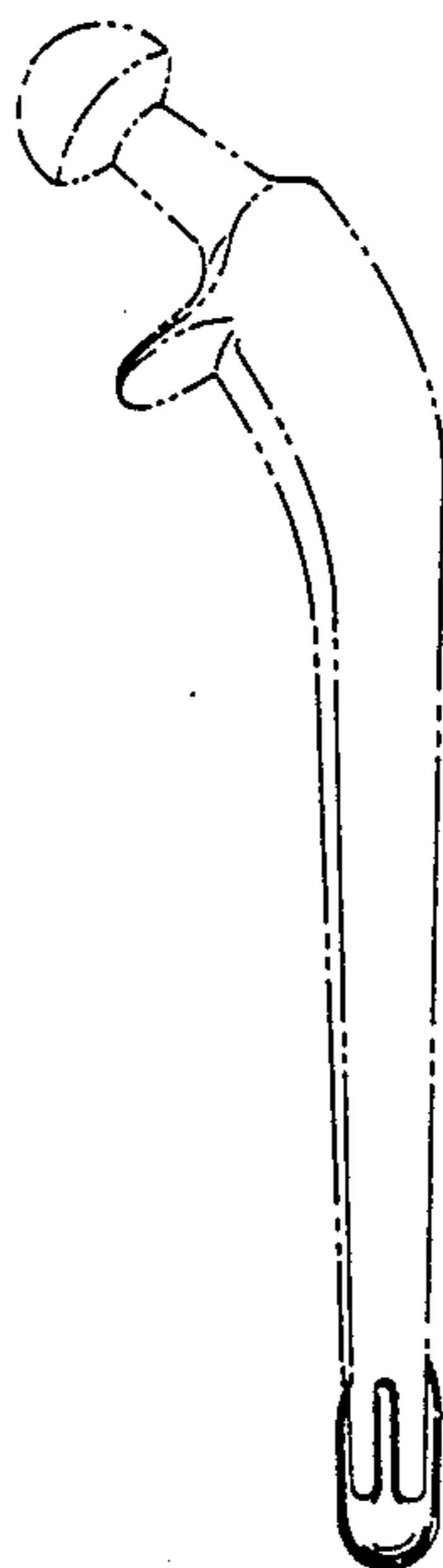
0041591	2/1981	European Pat. Off. .
0086879	11/1982	European Pat. Off. .
0179626	10/1985	European Pat. Off. .
0187903	10/1985	European Pat. Off. .
1409053	10/1975	United Kingdom .

### [57] CLAIM

The ornamental design for a centering cap for a prosthetic hip stem, as shown and described.

### DESCRIPTION

FIG. 1 is a perspective view of a centering cap for a prosthetic hip stem showing my new design;  
FIG. 2 is an enlarged perspective view thereof;  
FIG. 3 is a front elevational view thereof;  
FIG. 4 is a cross-sectional view thereof taken along lines 4—4 of FIG. 3;  
FIG. 5 is a top plan view thereof taken in the direction of lines 5—5 of FIG. 3;  
FIG. 6 is a lateral side view thereof;  
FIG. 7 is a cross-sectional view thereof taken along lines 7—7 of FIG. 3; and,  
FIG. 8 is a cross-sectional view thereof taken along lines 8—8 of FIG. 5.  
The broken lines in FIG. 1 showing a representative hip prosthesis are for illustrative purposes only and form no part of the claimed design.



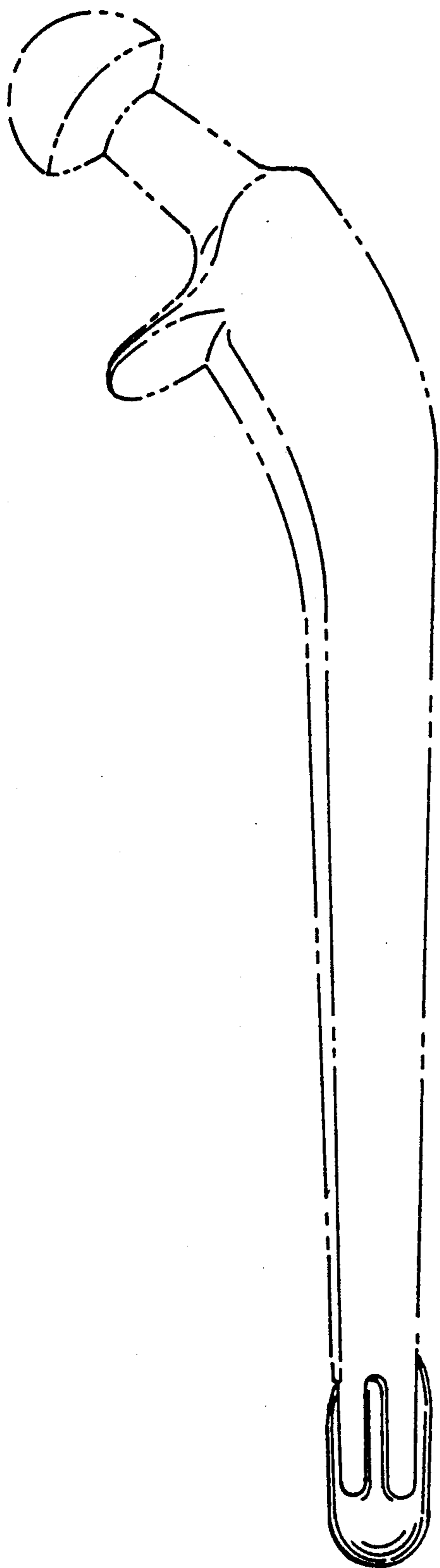


Fig. 1

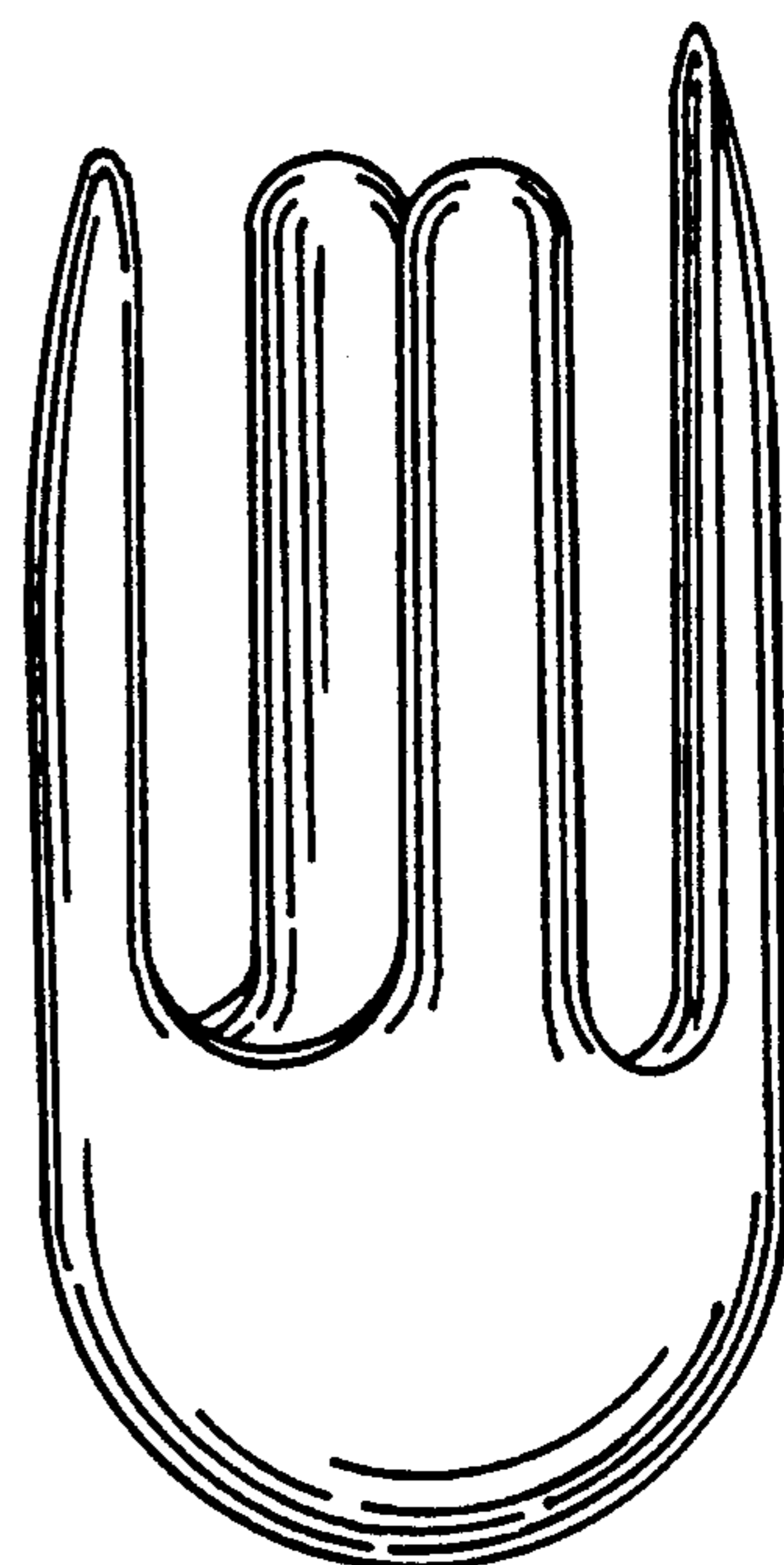


Fig. 2

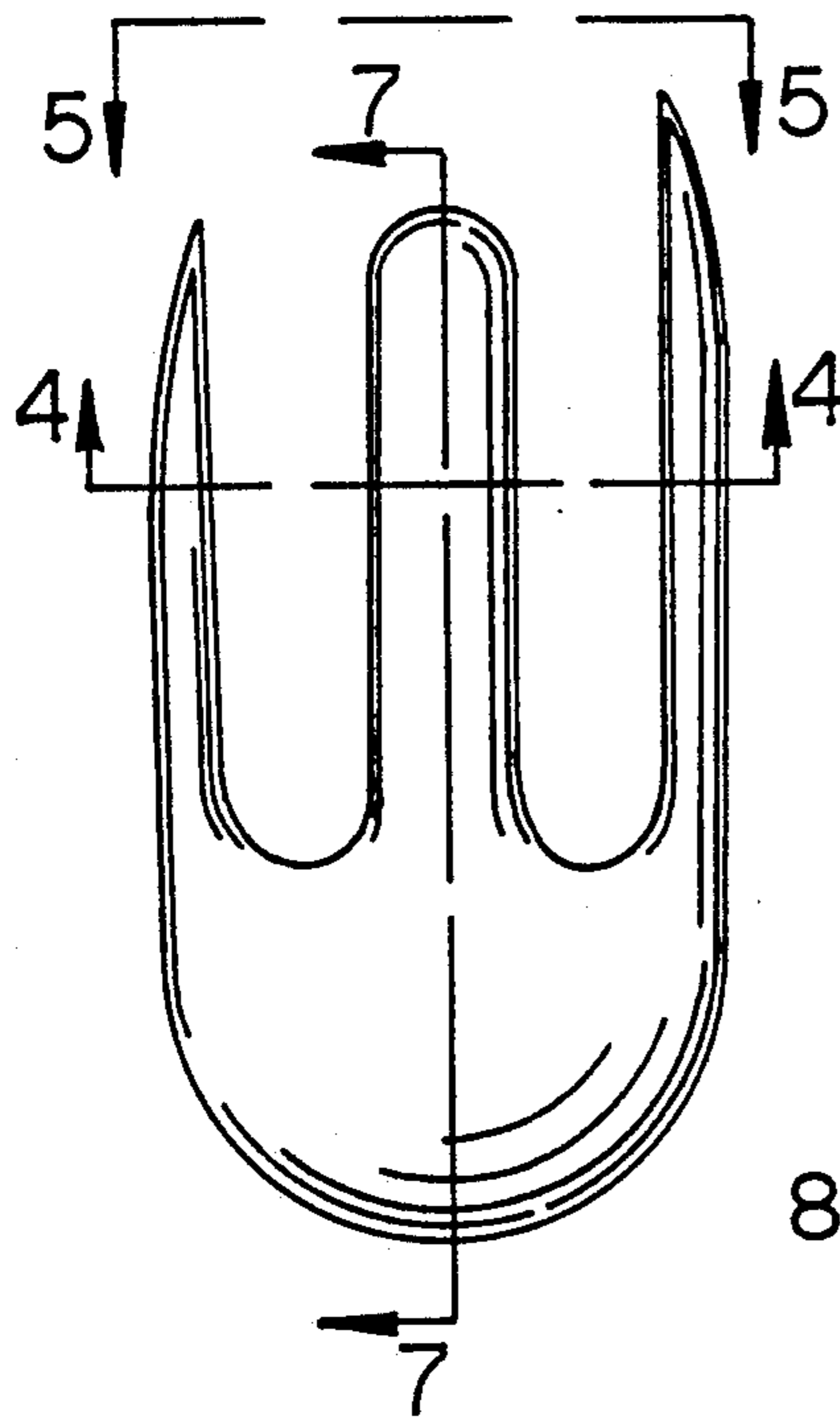


Fig. 3

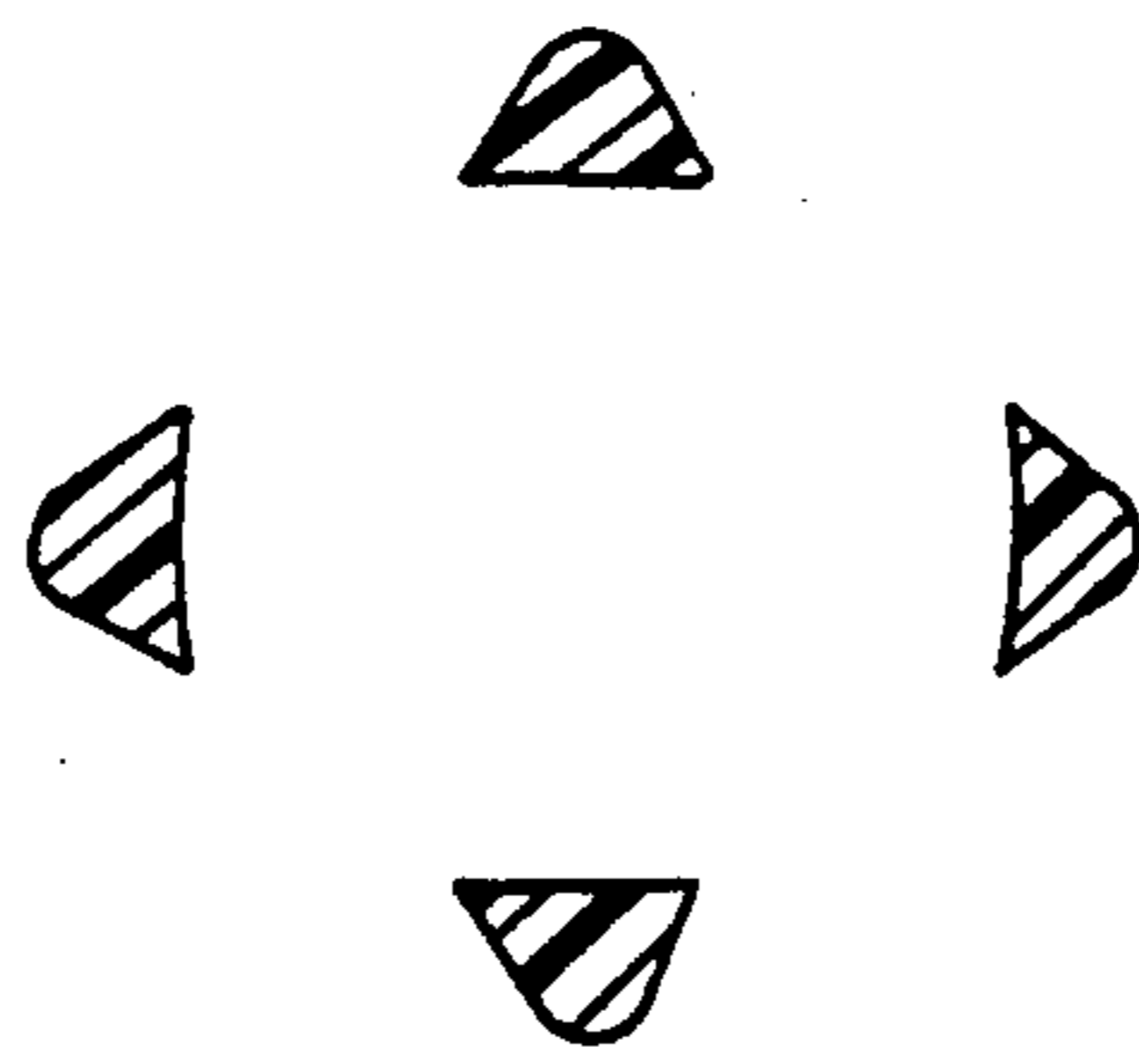


Fig. 4

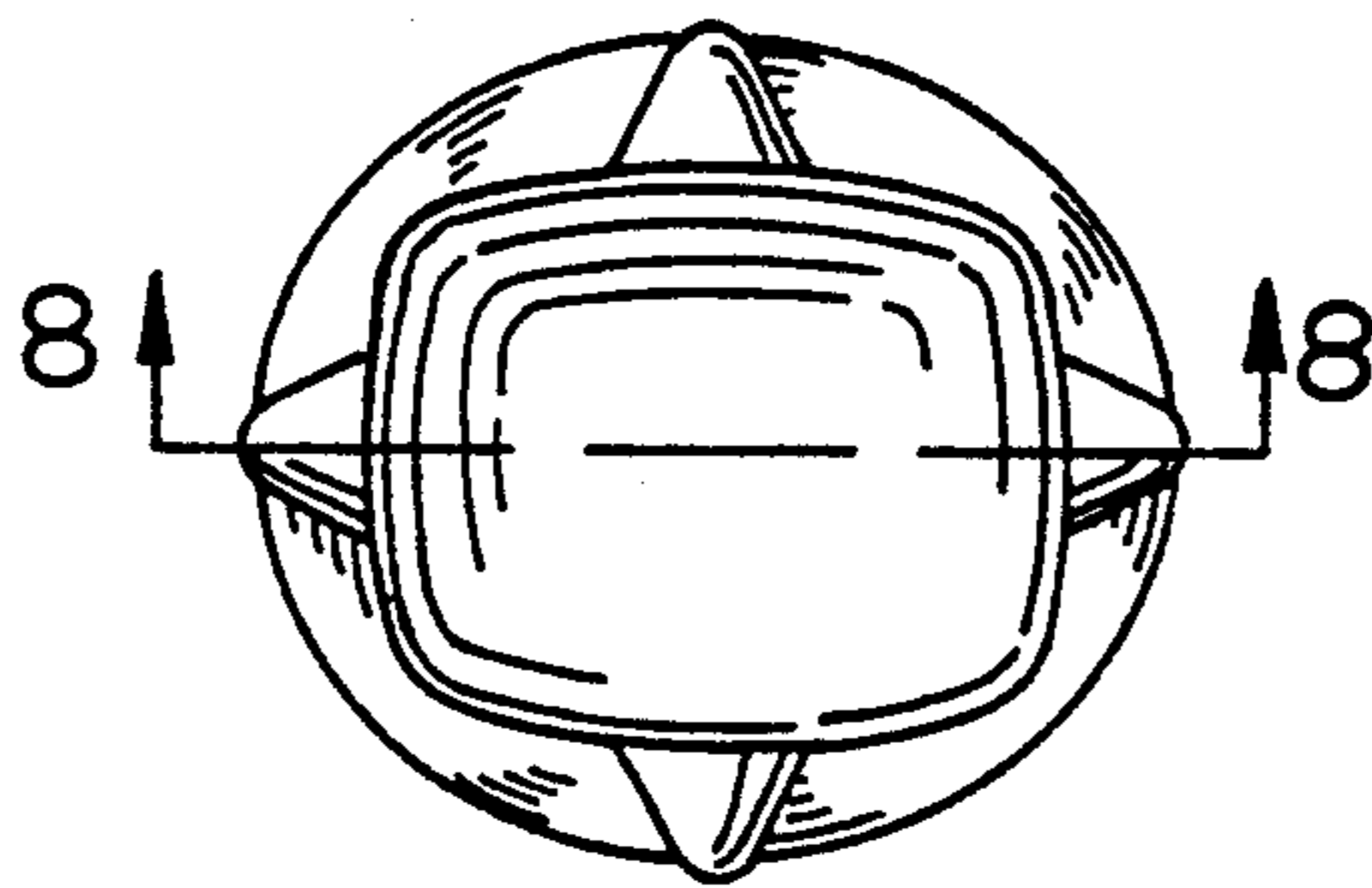


Fig. 5

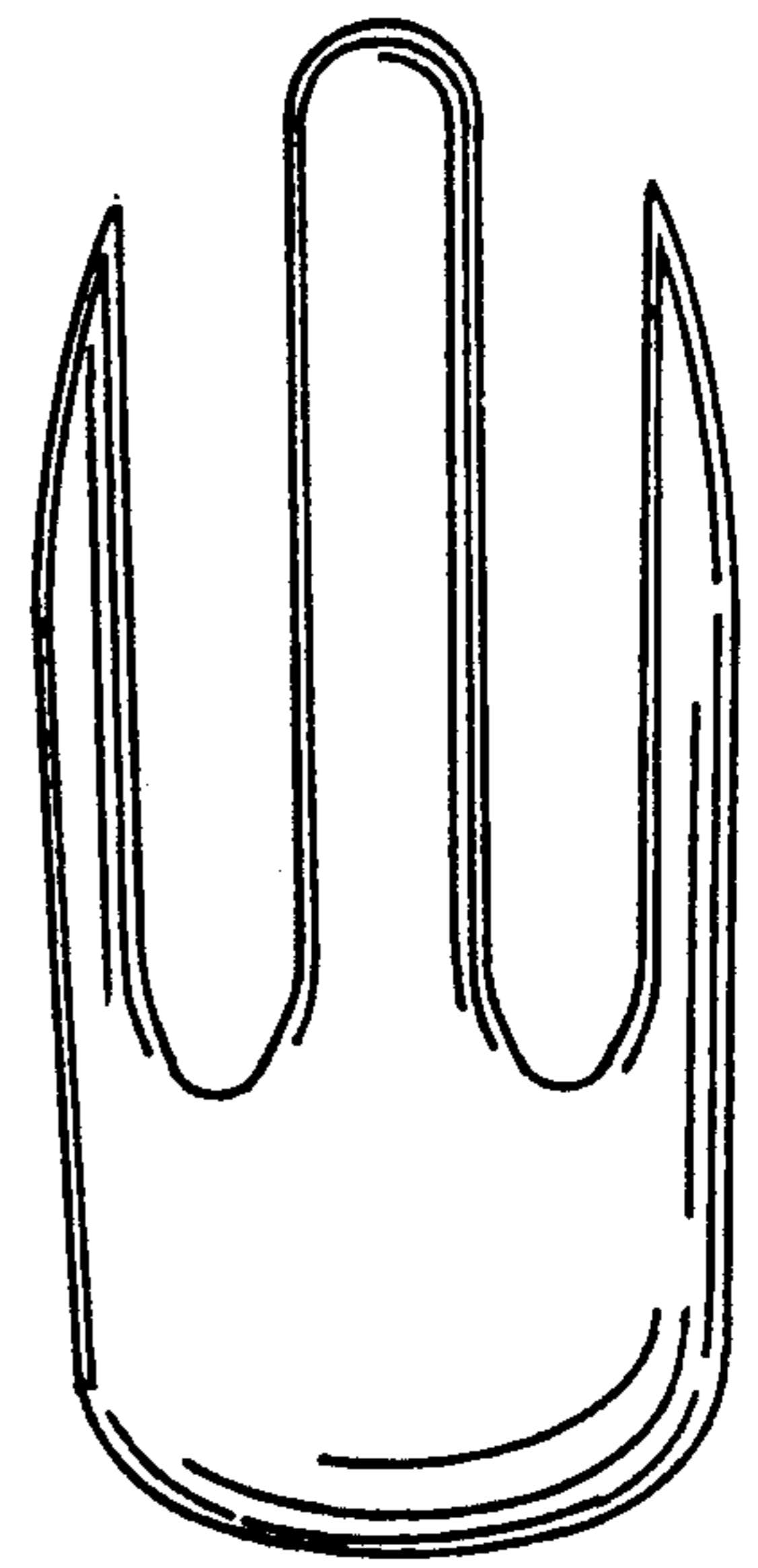


Fig. 6

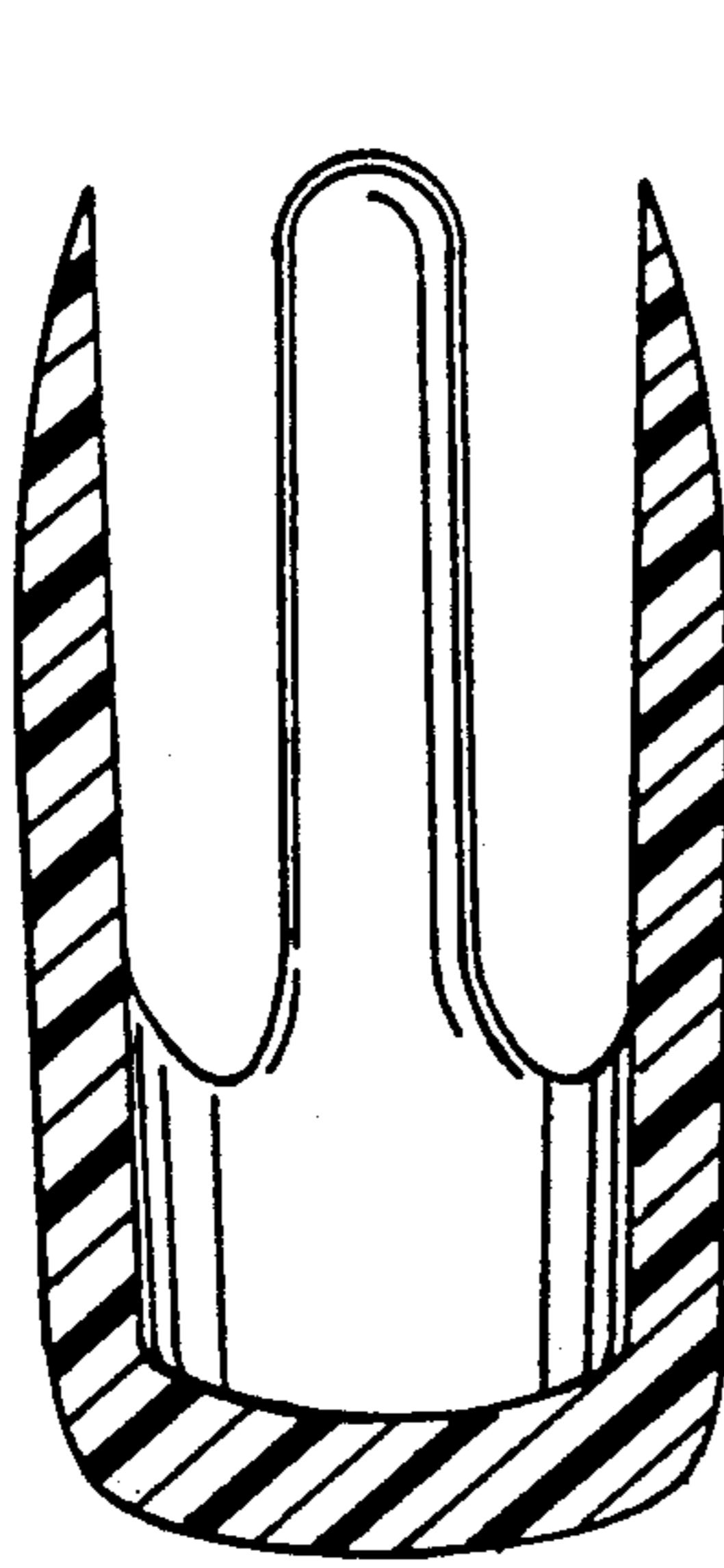


Fig. 7

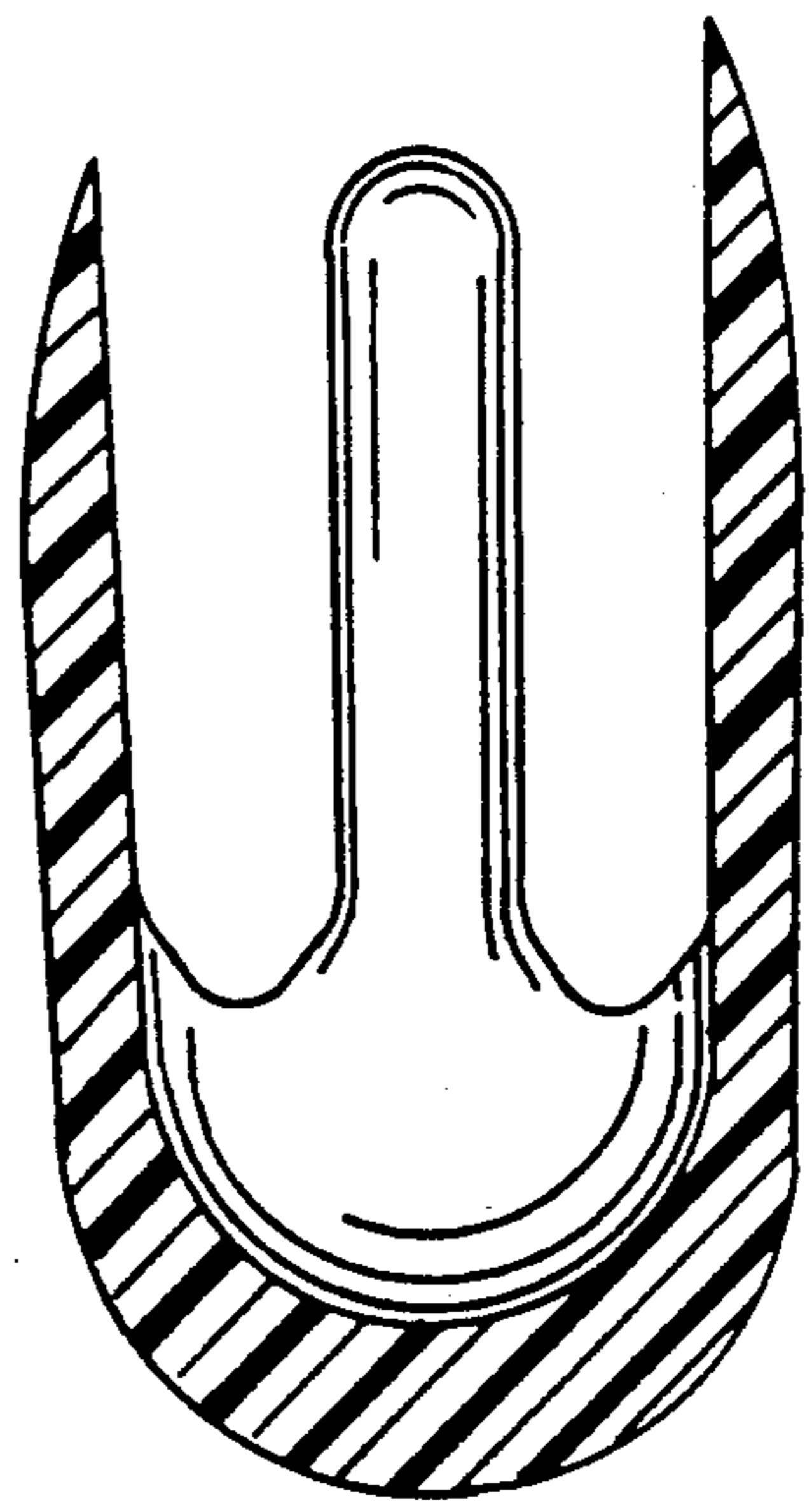


Fig. 8