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United States Patent [19]

Kavteladze et al.

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[45] **Date of Patent: **Jul. 8, 1997**

[54] **IMPLANTABLE SELF-EXPANDING STENT**

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[73] Assignee: **William Cook Europe A/S**, Denmark

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

[21] Appl. No.: **34,346**

[22] Filed: **Feb. 2, 1995**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 379,582, Feb. 1, 1995.

[30] **Foreign Application Priority Data**

Aug. 6, 1992 [SU] U.S.S.R. 5057852

[51] **LOC (6) Cl.** **24-03**
[52] **U.S. Cl.** **D24/155**
[58] **Field of Search** D24/155; 623/1, 623/12, 900; 606/194, 195, 198; 604/104

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[57] **CLAIM**

The ornamental design for an implantable self-expanding stent, as shown and described.

DESCRIPTION

FIG. **1** is a perspective view of an implantable, self-expanding stent showing our new design;

FIG. **2** is an enlarged front-end elevational view thereof;

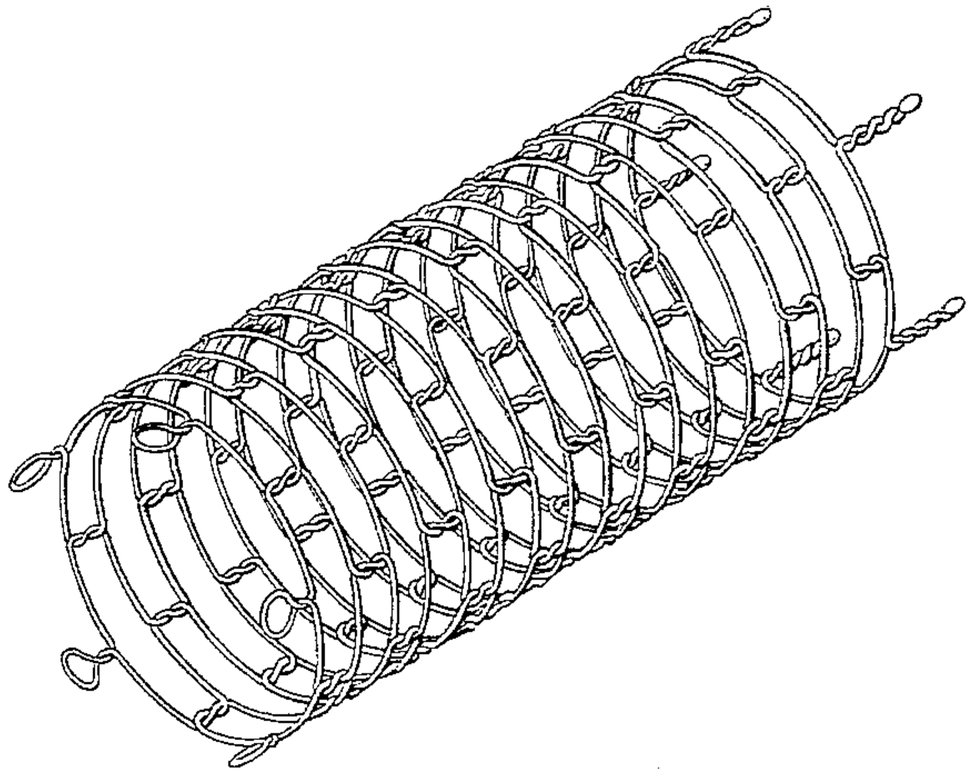
FIG. **3** is an enlarged side elevational view thereof;

FIG. **4** is a perspective view of a second embodiment of the implantable self-expanding stent;

FIG. **5** is an enlarged front-end elevational view thereof;

FIG. **6** is an enlarged elevational side view thereof; and,

FIG. **7** is a fragmentary side elevational view of a third embodiment of the implantable self-expanding stent.



The ornamental design of applicants' implantable self-expanding stent is directed to a plurality of flexibly interconnected cells extending around the circumference of the tubular-shaped stent and forming a row transverse to the longitudinal axis of the stent. The longer sides of an expanded cell are circumferentially oriented and transverse to the longitudinal axis; whereas the shorter flexibly interconnected sides of each cell are substantially aligned with the longitudinal axis. Cells in adjacent rows are circumferentially offset from each other. The flexible interconnections between cells in a given row are wound in one direction or an other with the flexible interconnection of the cells in an adjacent row being wound in the opposite direction. Loops are positioned at the front end of the interconnected cell design. In another aspect of the design, windings of adjacent, front end loops are wound in opposite directions.

1 Claim, 5 Drawing Sheets

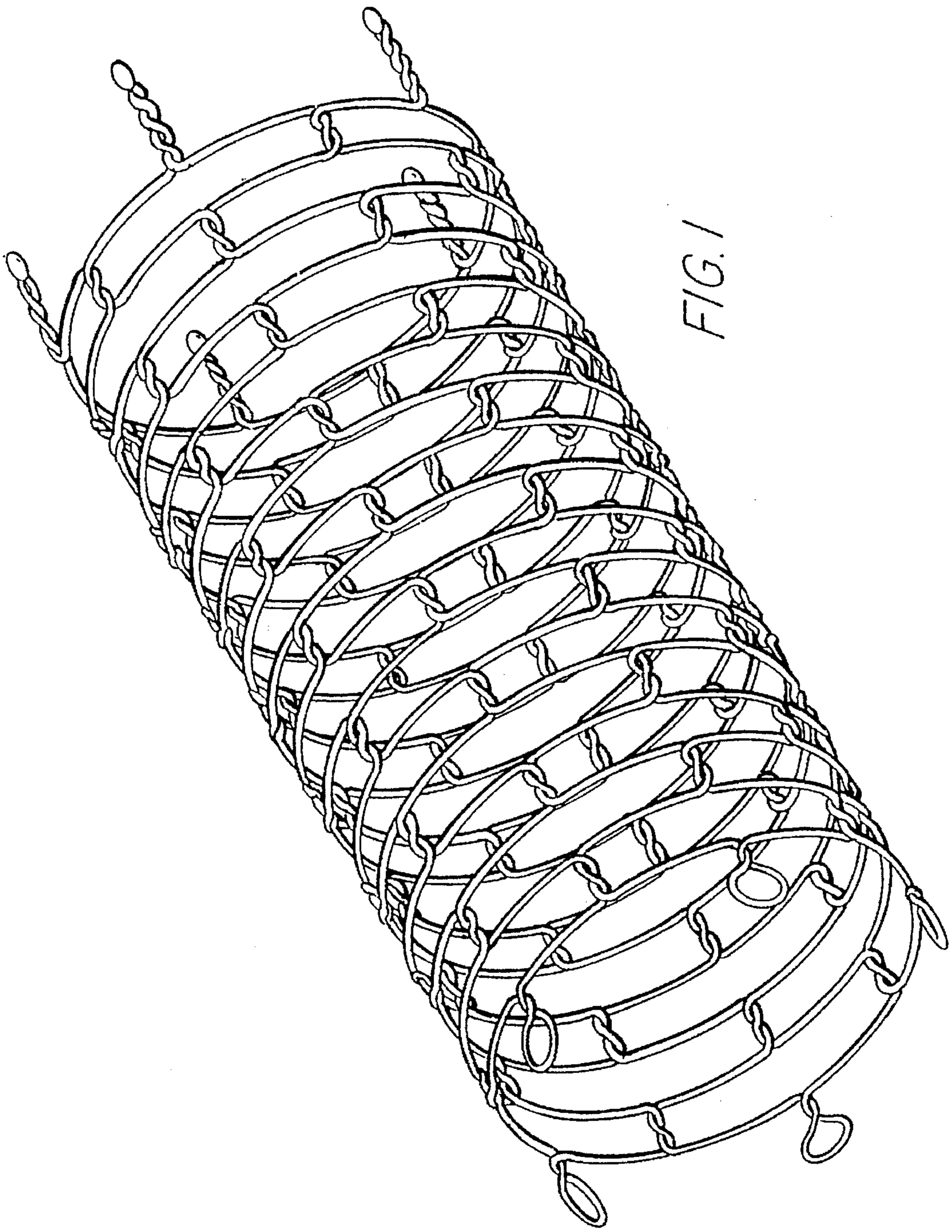


FIG. 1

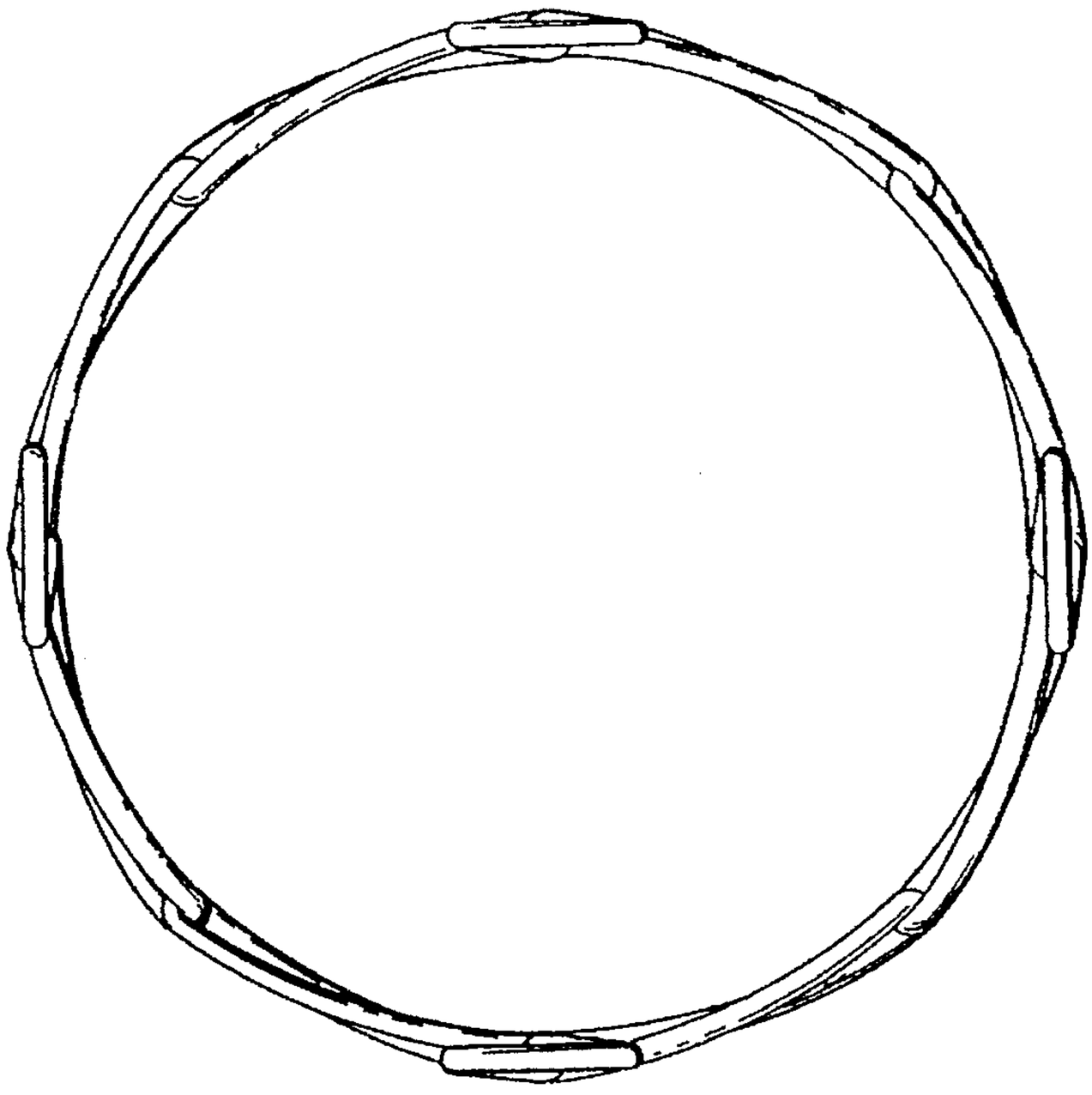


FIG. 5

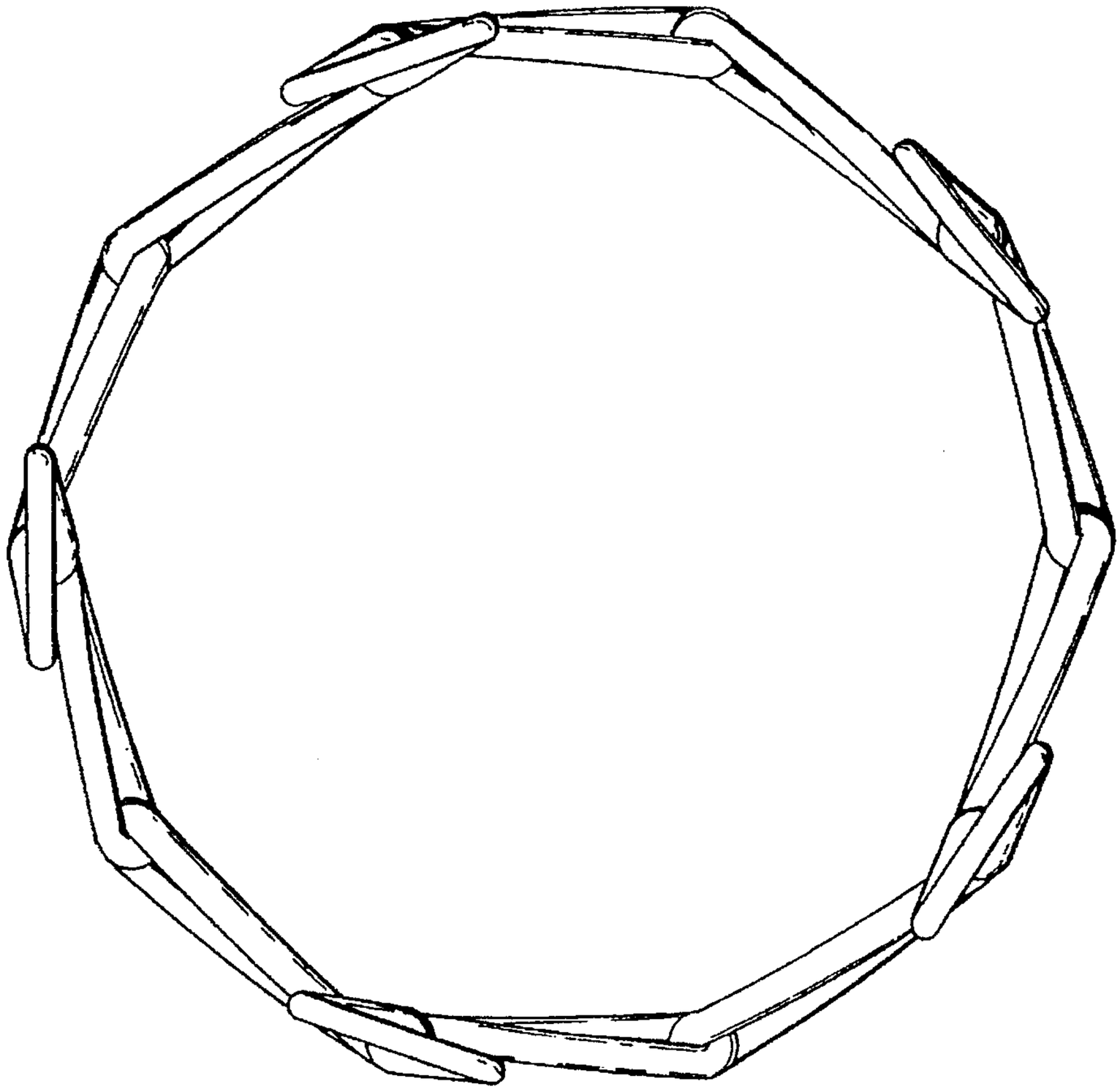


FIG. 2

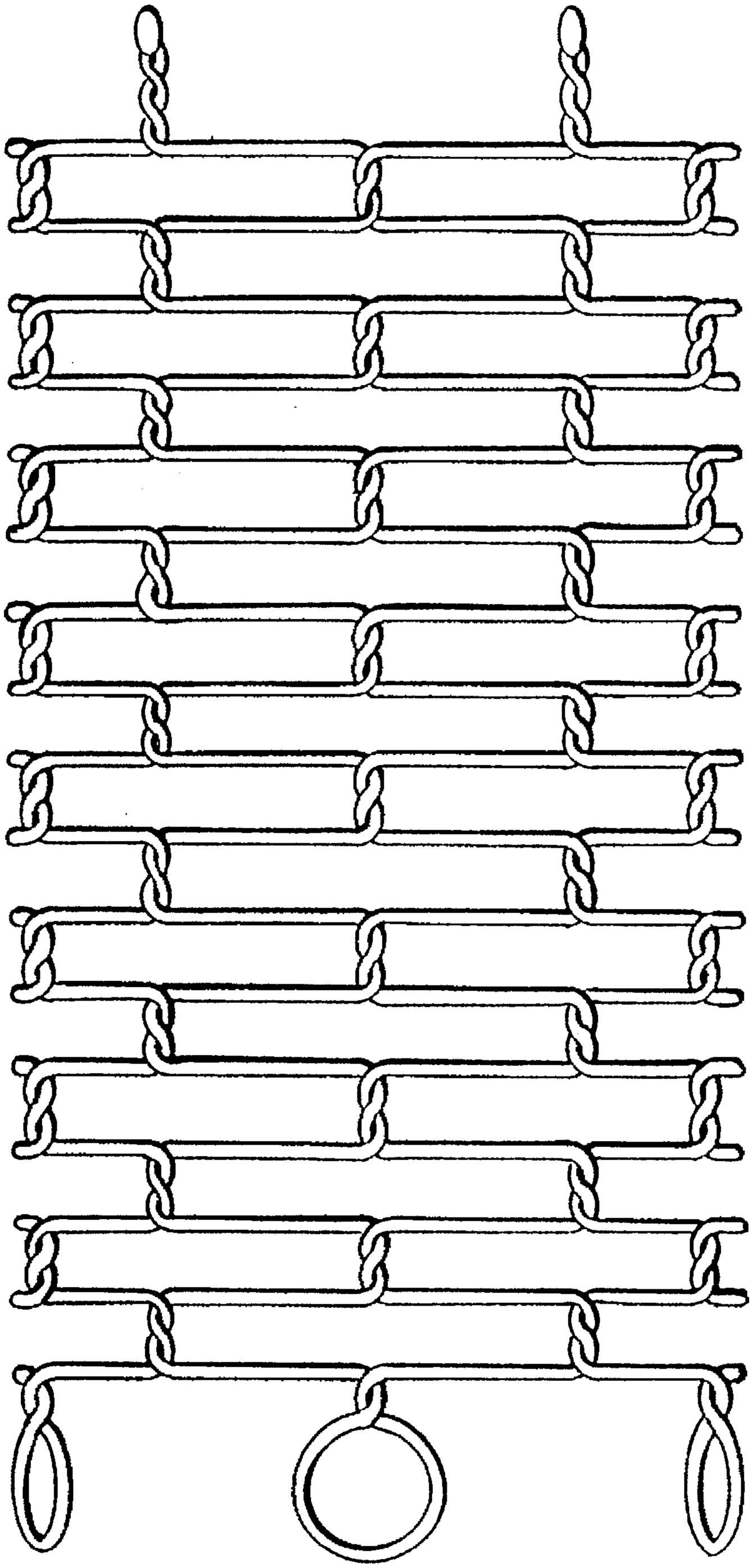


FIG. 3

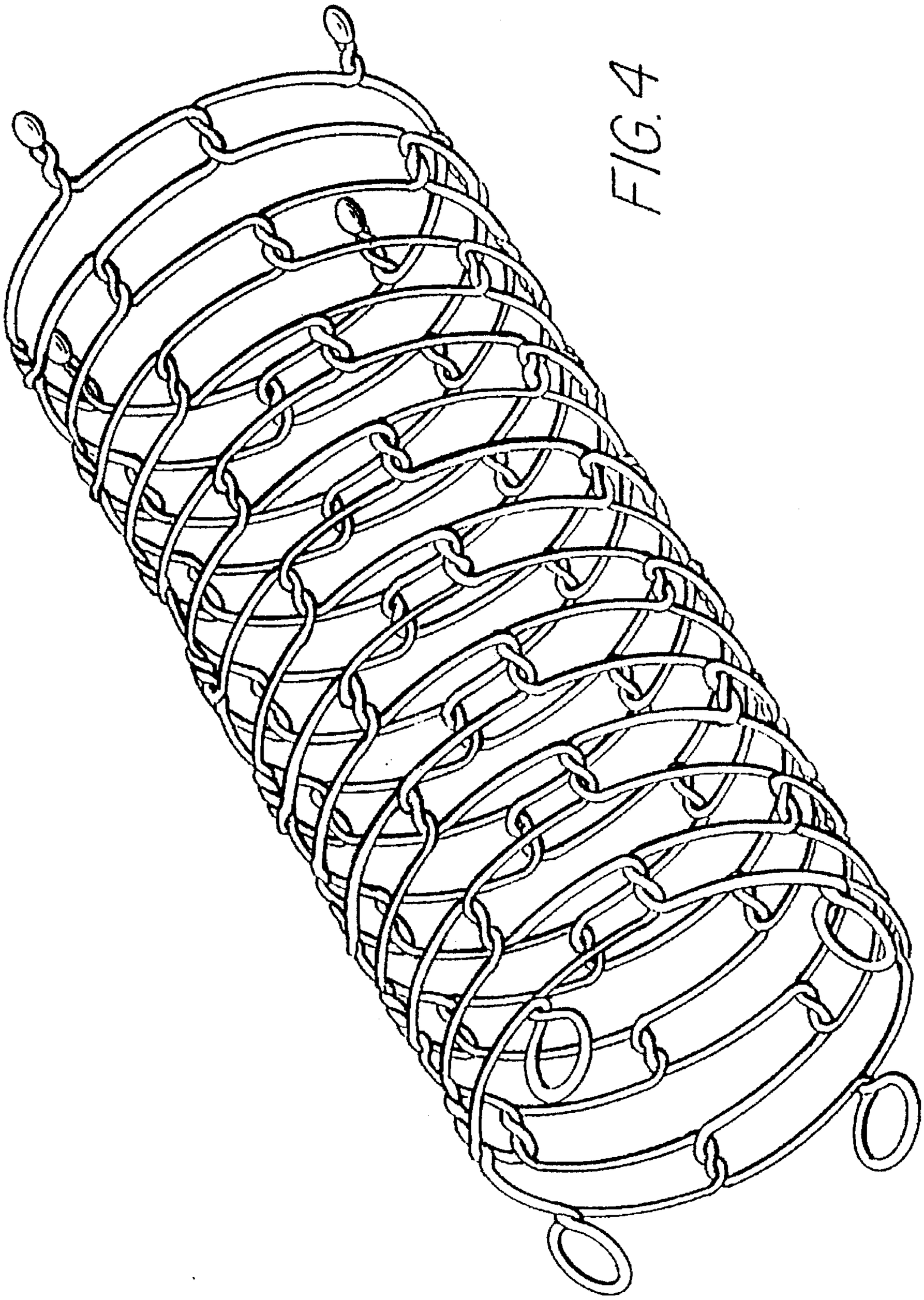


FIG. 4

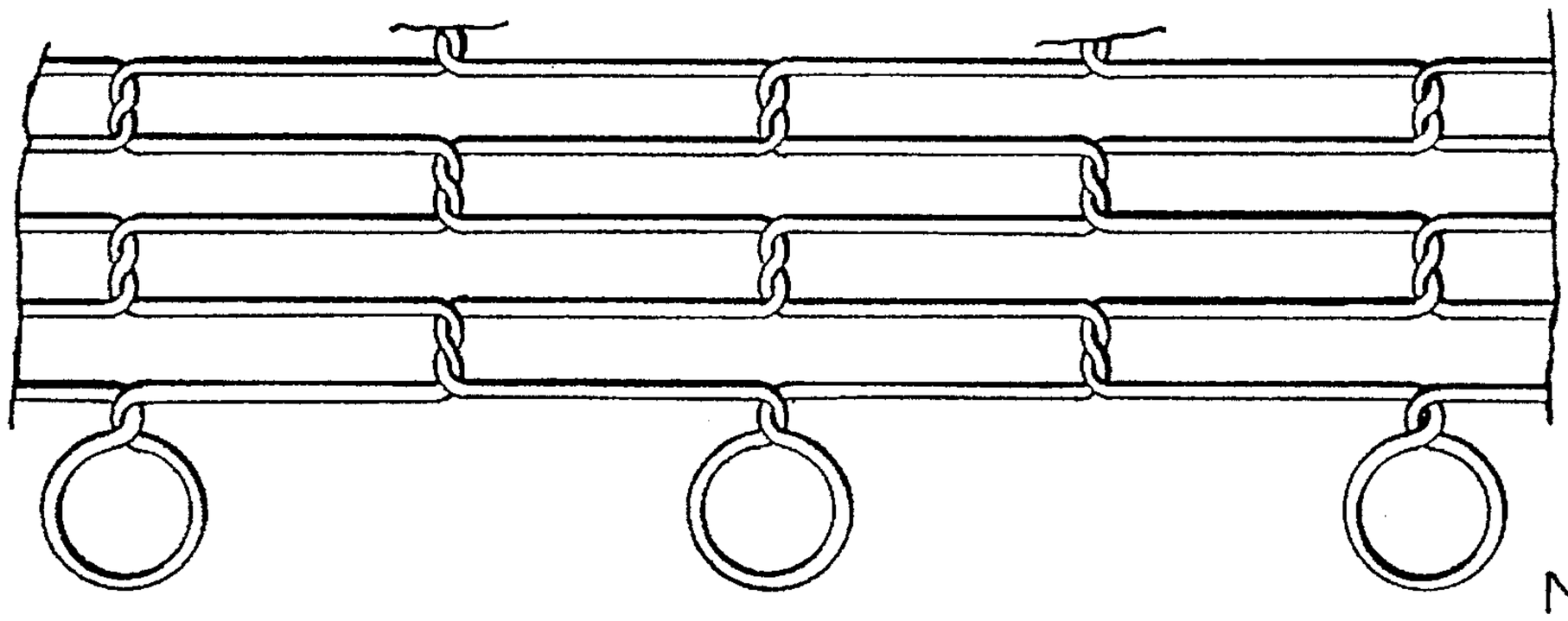


FIG. 7

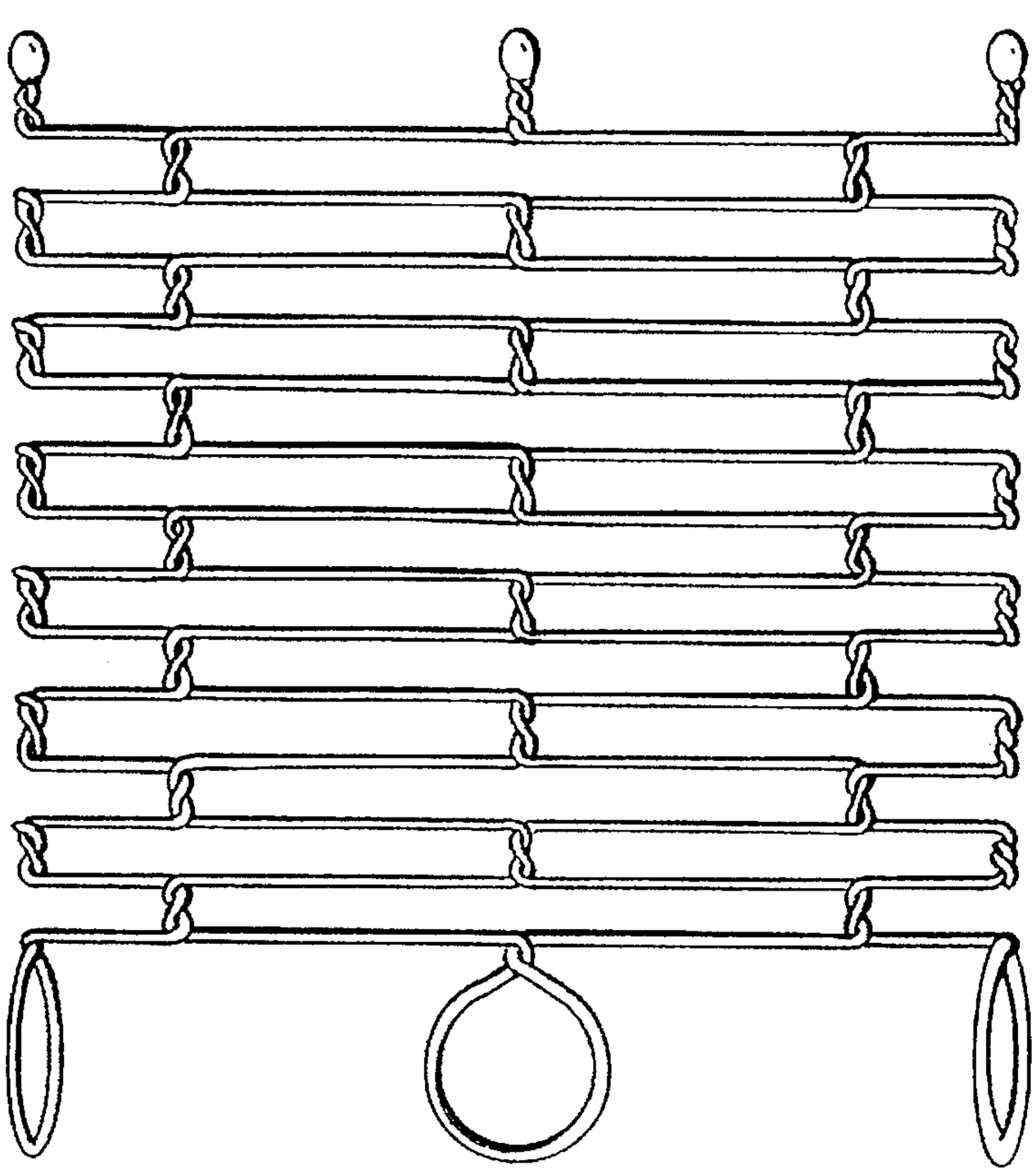


FIG. 6