

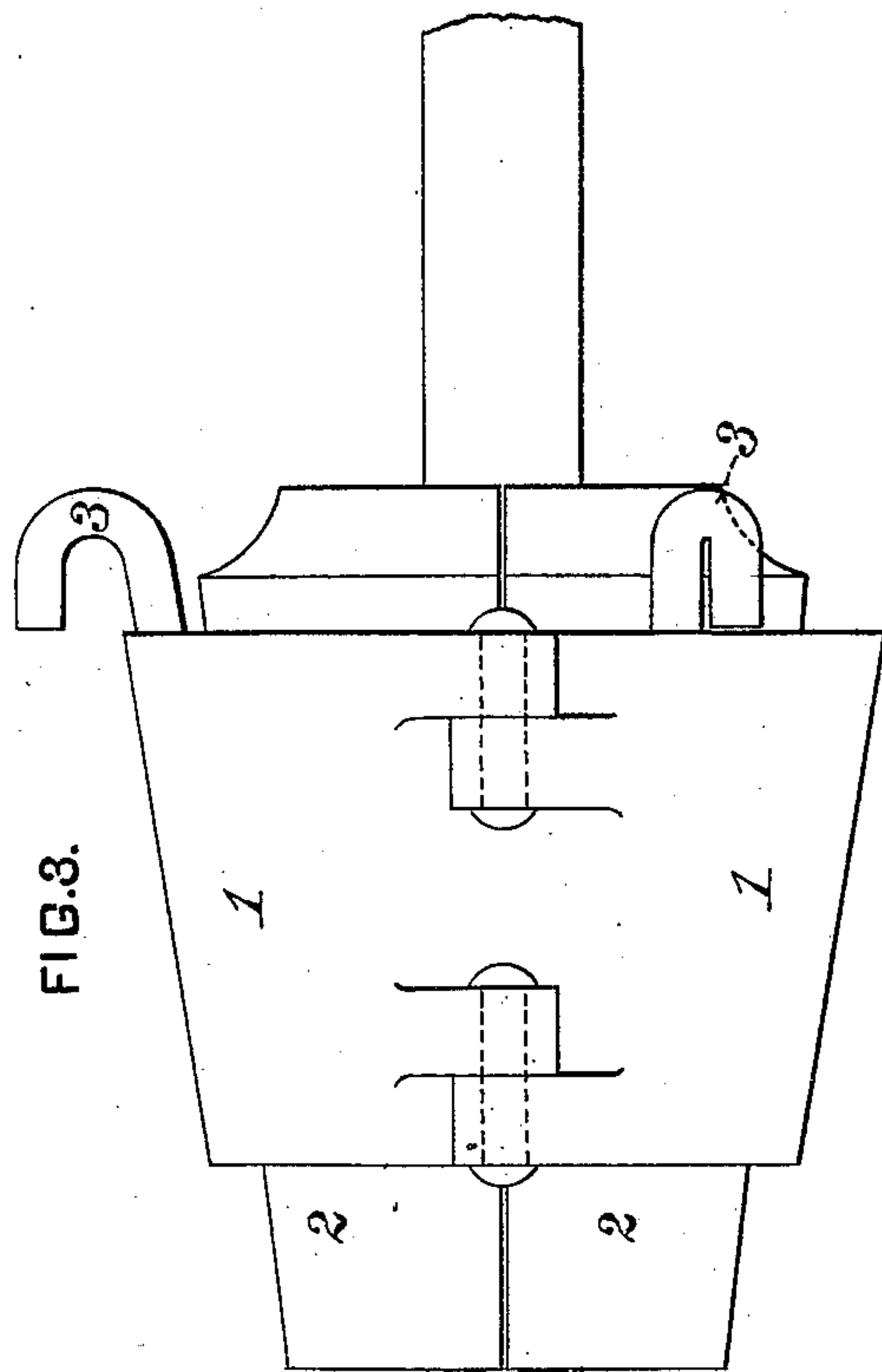
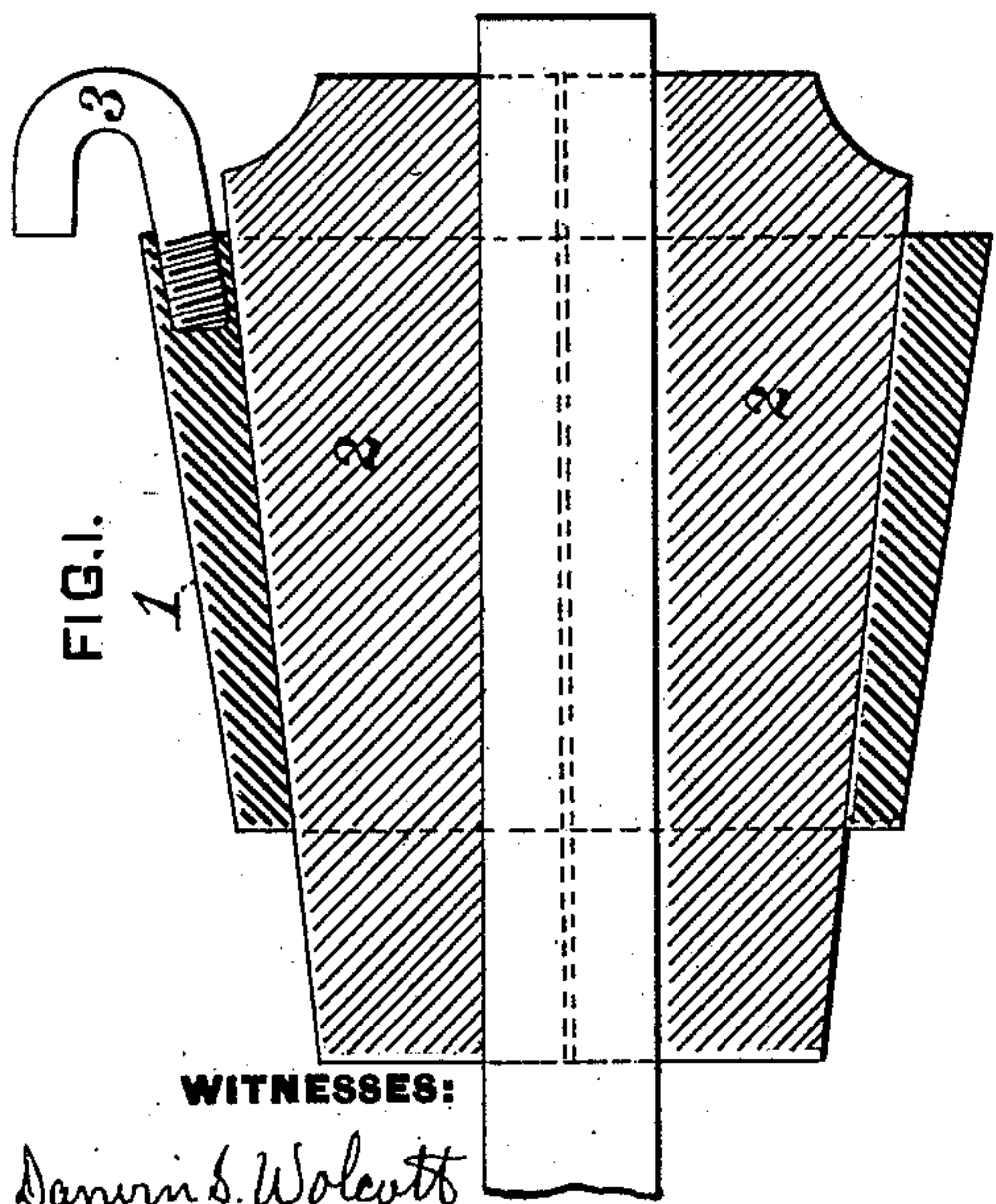
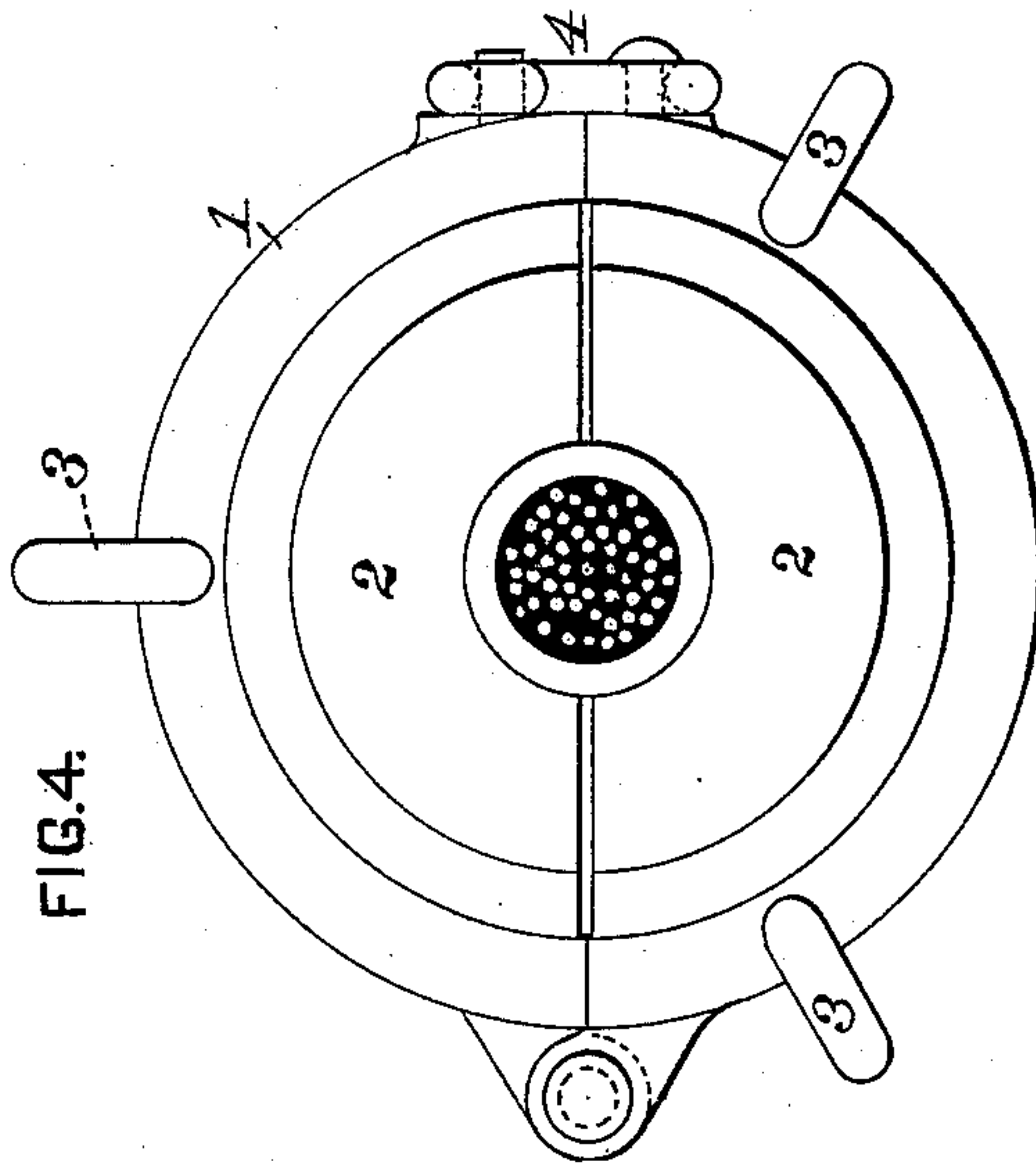
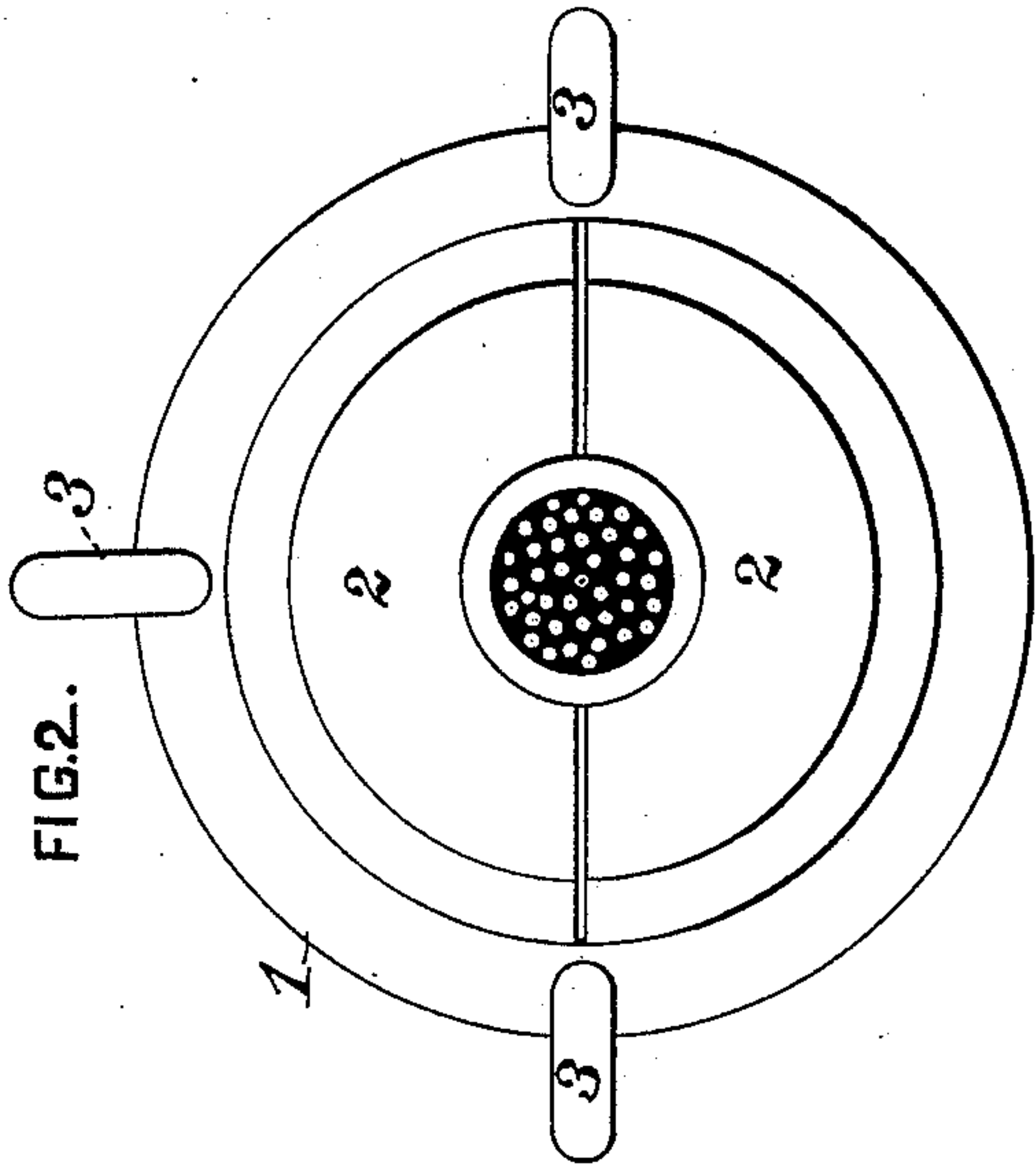
(No Model.)

2 Sheets—Sheet 1.

E. S. REID.
CABLE GRIP.

No. 424,935.

Patented Apr. 1, 1890.



WITNESSES:

Samuel S. Wolcott
F. E. Gaither

INVENTOR,

Edwin S. Reid,
by George H. Christy
Att'y.

(No Model.)

2 Sheets—Sheet 2.

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CABLE GRIP.

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FIG. 5.

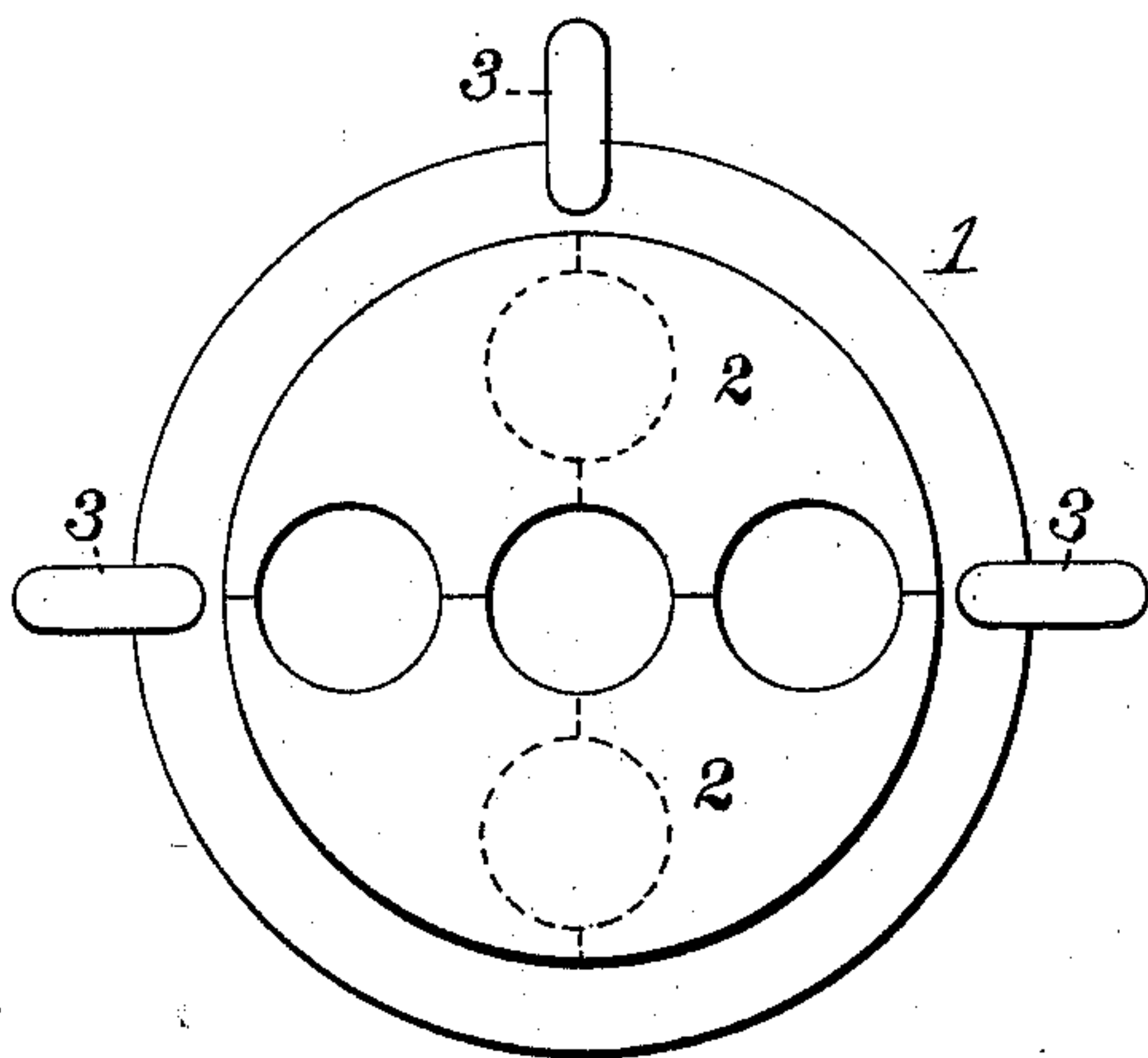


FIG. 6.

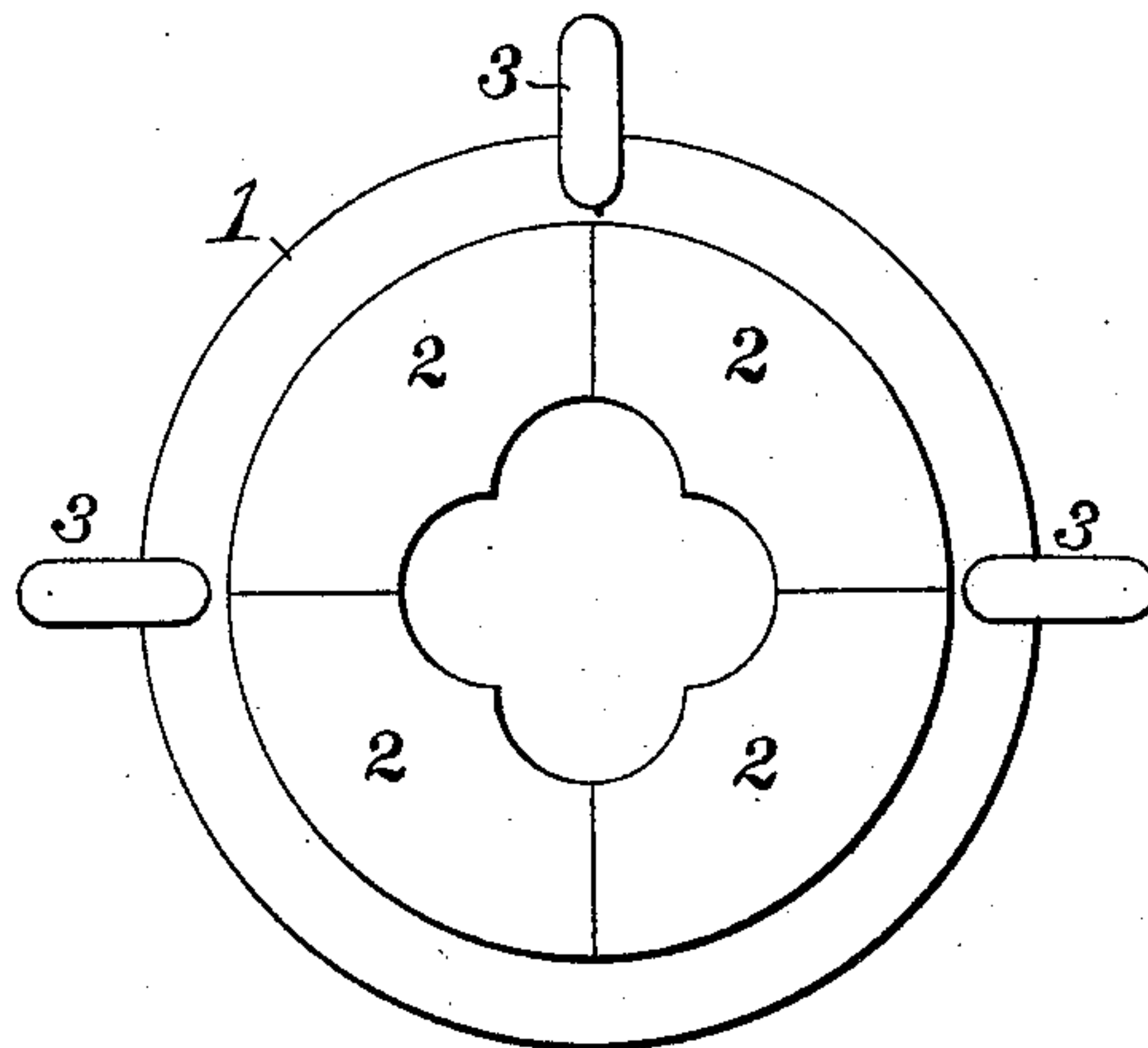


FIG. 7.

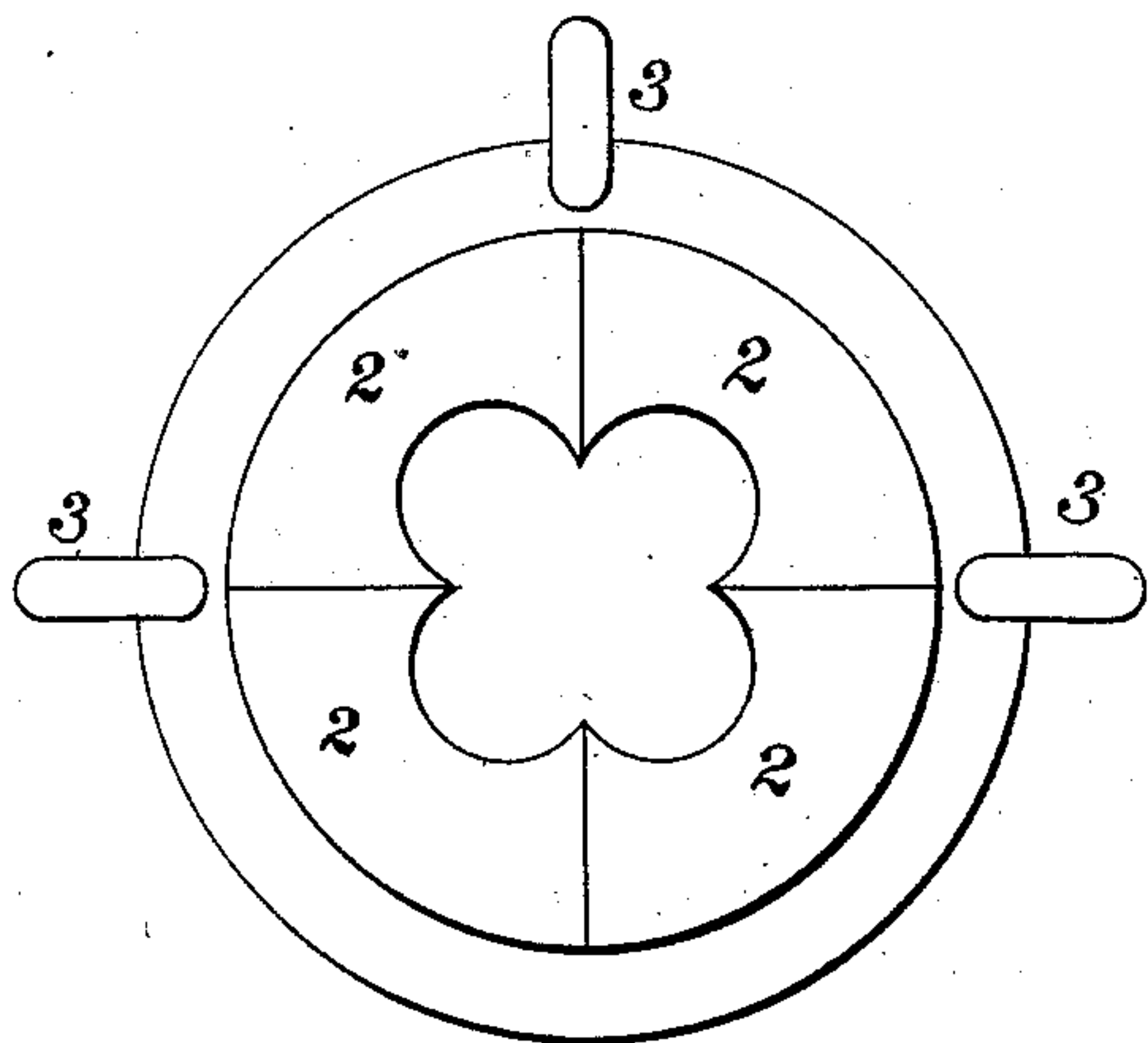
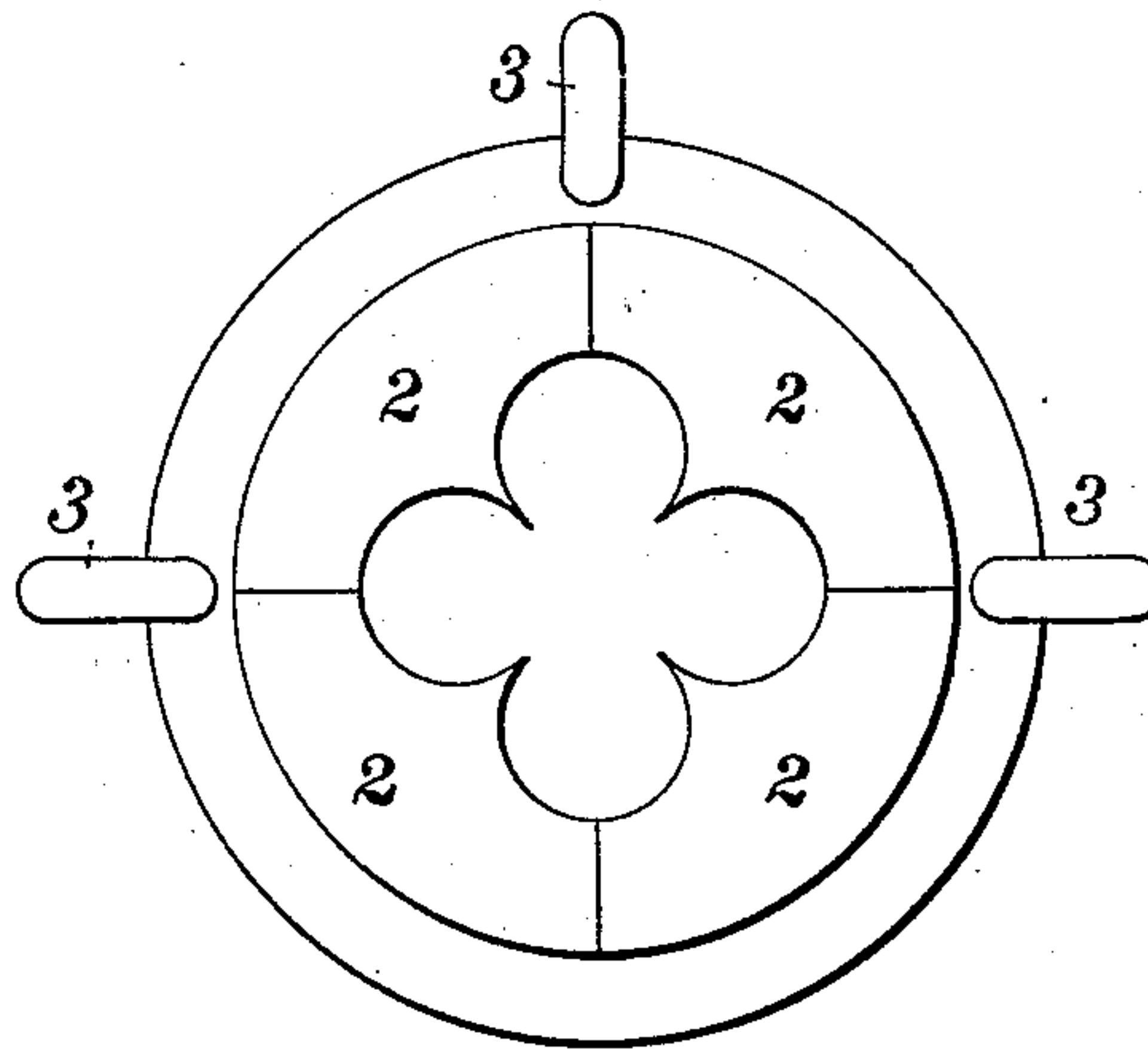


FIG. 8.



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UNITED STATES PATENT OFFICE.

EDWIN S. REID, OF NEW YORK, N. Y., ASSIGNOR TO THE STANDARD UNDERGROUND CABLE COMPANY, OF PITTSBURG, PENNSYLVANIA.

CABLE-GRIP.

SPECIFICATION forming part of Letters Patent No. 424,935, dated April 1, 1890.

Application filed January 11, 1890. Serial No. 336,661. (No model.)

To all whom it may concern:

Be it known that I, EDWIN S. REID, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented or discovered a certain new and useful Improvement in Grips for Drawing in Cables, of which improvement the following is a specification.

The invention described herein relates to certain improvements in grips for drawing electric and other cables into conduits, &c. Heretofore in drawing in such cables one end thereof has had to be especially prepared for attachment to the draw-in rope, and the cable is generally so damaged by such attachment and the drawing-in operation as to necessitate the cutting off of a considerable portion thereof.

The object of this invention is to provide a grip which can be securely attached to the cable at any point without any injury thereto; and in general terms the invention consists in the construction and combination of mechanical devices or elements, all as more fully hereinafter described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a sectional view of my improved grip applied to a cable. Fig. 2 is an end elevation of the same. Fig. 3 is a side elevation of a modified form of the grip. Fig. 4 is an end elevation of the same. Figs. 5, 6, 7, and 8 are end elevations showing a construction of sectional block or wedge for drawing in one or more cables simultaneously.

In the practice of my invention a sleeve or shell 1, internally tapered, as shown in Fig. 1, is slipped over the end of the cable, with the end having the larger opening toward the front end of the cable. Two or more sectional blocks or wedge-shaped pieces 2, having their inner faces straight and concave or adapted to have a uniform even bearing or grip upon the cable, and their outer faces tapering from one end to the other and convex transversely or otherwise shaped to fit with the sleeve or shell, are placed around the cable adjacent to its end and the sleeve slipped forward over the sectional blocks or wedges, clamping them around the cable. The draw-in rope, which has been previously passed through the con-

duit, is connected to hooks 3 or other suitable means for attachment in the sleeve or ring, which is then drawn through the conduit, dragging the cable with it.

It will be readily understood that the greater the power applied to the shell or sleeve to draw in the cable the tighter the grip will engage the cable and prevent any slipping thereof.

It is frequently necessary to take up slack in cables between man-holes, and in order that the grip may be conveniently applied to the cable the sleeve may be made in two parts hinged together at one side, as shown in Figs. 3 and 4, and at the opposite side provided with a hasp or other suitable catch 4, for holding the parts together. A grip having its sleeve thus constructed may be readily applied at any point on the cable, thus avoiding the necessity of slipping the ring or sleeve on at the end of the cable.

While the wedges are shown as nearly surrounding the cable, forming a conical plug, as it were, when arranged in position, they may be made so as to only partially surround the cable, as indicated by dotted lines in Fig. 2.

It is frequently desirable to draw in two or more cables simultaneously, and to that end the inner walls of the sectional blocks or wedges are provided with two or more cable-gripping faces, as shown in Figs. 5 to 8. In Fig. 5 is shown (in full lines) a construction of grip whereby one, two, three, or more cables may be drawn in simultaneously by the sectional blocks or wedges (two in number) having independent cable-gripping faces. By employing four sectional blocks or wedges, as indicated in full and dotted lines in Fig. 5, the capacity of the grip can be largely increased. In Figs. 6, 7, and 8 is shown a construction of blocks or wedges having their gripping-faces so arranged that the cables are forced into contact with each other by the wedges. In Figs. 6 and 7 is shown a construction whereby five cables may be drawn in, four resting in the gripping-faces in the blocks or wedges and being forced against a centrally-located cable.

The shape or construction of the sleeve or shell is immaterial, it only being essential that it have inner surfaces longitudinally ta-

pering or inclined and adapted by bearing upon exterior inclined blocks or wedges to force the latter toward each other and into engagement with the cable.

5 The wedges are preferably formed of wood or other like material, so that the cable may not be injured by contact therewith.

I claim herein as my invention—

1. In a cable-grip or drawing-in apparatus,
10 two or more sectional blocks or wedges adapted by their movements toward each other to take a bite on one or more cables to be drawn, and made with an exterior taper, in combination with a surrounding shell or sleeve corre-
15 spondingly tapered as regards its inner wall, and provided with engaging devices by which to make connection with the pulling-power, substantially as set forth.

2. In a cable-grip or drawing-in apparatus, two or more sectional blocks or wedges adapted by their movements toward each other to take a bite on one or more cables to be drawn and having an exterior taper, in combination with a surrounding shell or sleeve formed of separable sections, and correspondingly tapered as regards its inner wall, and provided with devices by which to make connection with the pulling-power, substantially as set forth. 20 25

In testimony whereof I have hereunto set my hand. 30

EDWIN S. REID.

Witnesses:

WM. F. DANA,

CHARLES THORNTON DAVIS.