

No. 721,289.

PATENTED FEB. 24. 1903.

O. J. DEPP & J. P. HUNTER.
TRANSFORMER.

APPLICATION FILED JUNE 30, 1902.

NO MODEL.

FIG. 1

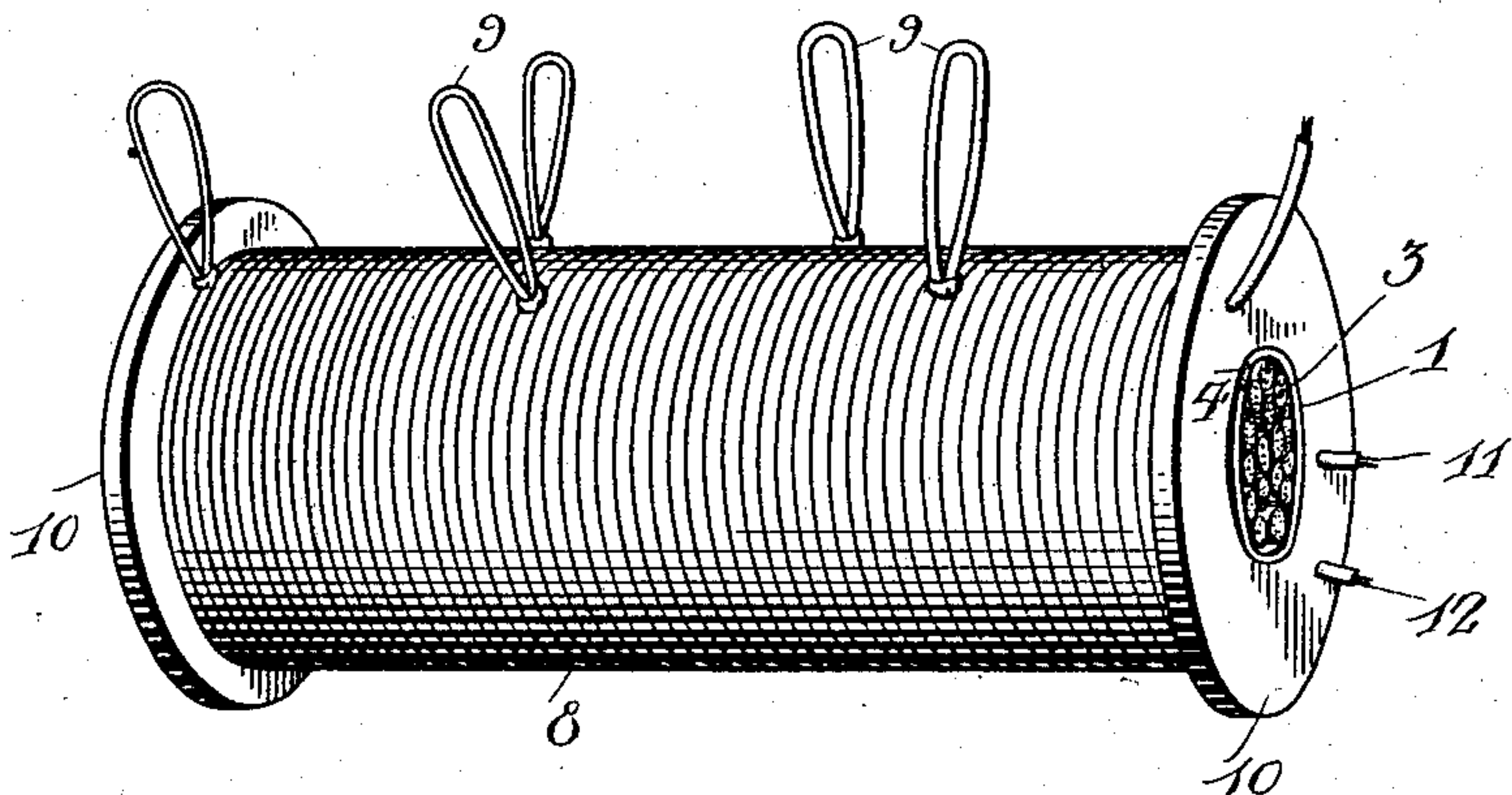


FIG. 2

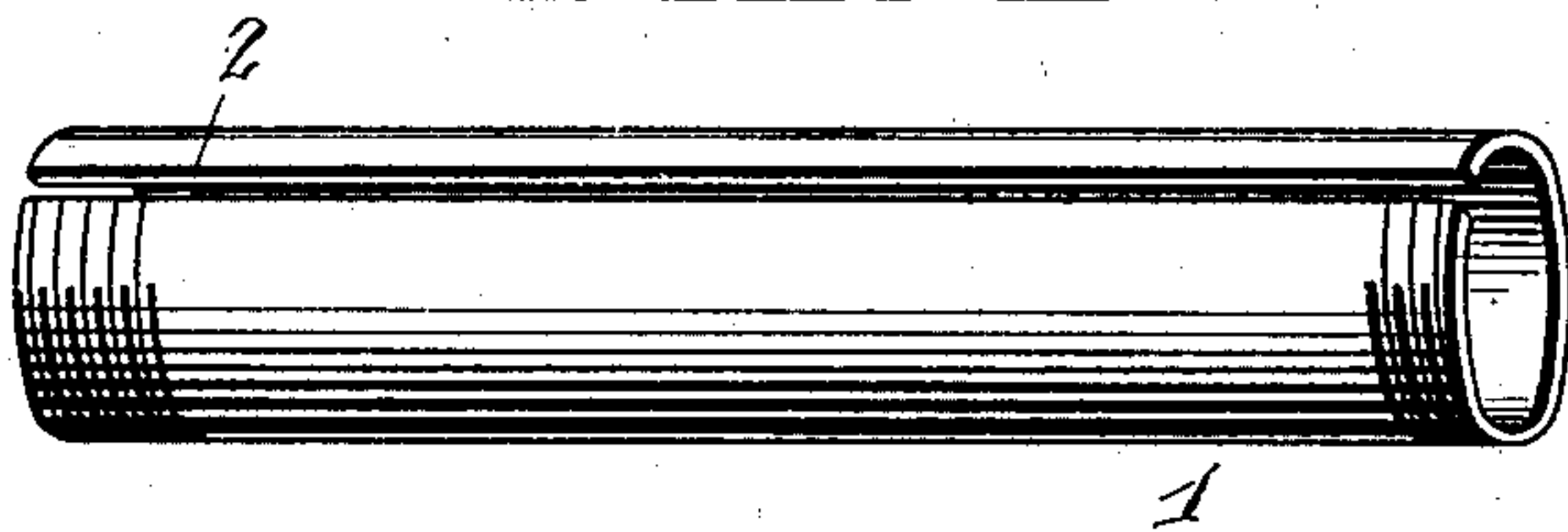
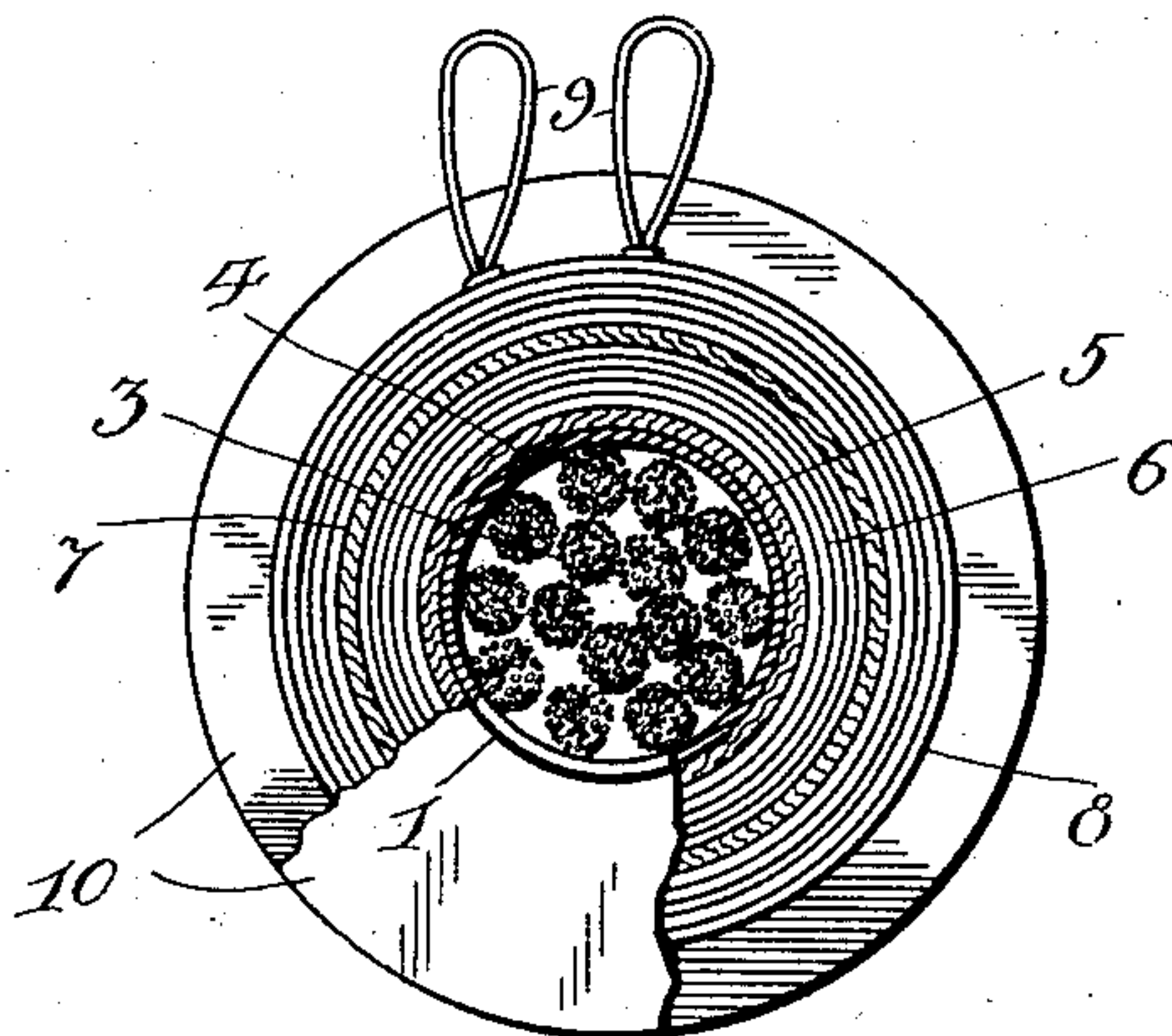


FIG. 3



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UNITED STATES PATENT OFFICE.

OTIS J. DEPP AND JAMES P. HUNTER, OF DALLAS, TEXAS.

TRANSFORMER.

SPECIFICATION forming part of Letters Patent No. 721,289, dated February 24, 1903.

Application filed June 30, 1902. Serial No. 113,742. (No model.)

To all whom it may concern:

Be it known that we, OTIS J. DEPP and JAMES P. HUNTER, citizens of the United States, residing at Dallas, in the county of Dallas and State of Texas, have invented certain new and useful Improvements in Transformers; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a transformer or converter for changing the voltage of an alternating electric current.

The object of the invention is to provide a transformer adapted for general use, but more particularly to admit of varying the voltage of an alternating current to supply a lamp or group of lamps of low voltage capacity, such transformer being simple of construction, comparatively inexpensive of production, and of maximum efficiency in use.

With the above and other objects in view, which will readily appear as the nature of the invention is better understood, said invention consists in certain novel features of construction and combination and arrangement of parts, which will be hereinafter fully described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view of a transformer embodying our invention. Fig. 2 is a perspective view of the core thereof. Fig. 3 is a cross-section.

Referring to the drawings, 1 designates an iron tube, which is slotted longitudinally from end to end, as shown at 2, and incloses a Swedish iron core 3, made of a number of strands of wire or laminations of soft iron. The tube 1 forms, in effect, a horseshoe-magnet about the core 3, and its slot 2 receives a spacing-strip 4, of fiber or other non-conducting material, which prevents the walls of said slot from coming together. Any other means constituting an equivalent of the strip may be used to adapt the core to withstand the pressure of the windings, thus preventing the walls of the slot from coming together.

Around the completed core thus formed is placed the insulation 5, over which is wound the insulated magnet-wire forming the primary coil 6. This coil 6 is covered with in-

sulation 7, over which is wound the secondary coil 8. The secondary coil is provided with a series of loops or branches 9, connected to different convolutions thereof, from which in practice a number of leads may lead to proper terminals, so that by means of a switch several voltages may be obtained from the secondary coil. When used for controlling miniature lamps, for which the device is primarily designed, the voltage may be stepped down from one hundred and ten volts to one volt and up to ten in as many divisions as may be required. It is possible, however, to use a lower primary voltage and get a correspondingly-low voltage from the secondary wires. In building up the coils a non-conducting substance is used at the ends as heads to hold the wires in place, said heads being indicated at 10 in Fig. 1.

11 and 12, respectively, represent the terminals of the primary and secondary coils.

While the device has been provided, primarily, to admit of the use of low-voltage lamps, either singly or in multiple, on the secondary circuit of the transformer, we do not restrict the invention to such usage, as it may be applied to any type of transformer and made of any desired capacity.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a transformer, a core, a split tube about the core, and means for spacing the walls of the split portion of the tube, substantially as specified.

2. In a transformer, a core, a split tube about the core, and insulated spacing means occupying the split in the tube, substantially as set forth.

3. A transformer comprising a core, a split sleeve surrounding the core, a non-conducting filler spacing the walls of the split portion of the sleeve, substantially as specified.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

OTIS J. DEPP.
JAMES P. HUNTER.

Witnesses:

W. H. BASKETT,
W. H. PERRY.