No. 647,101. Patented Apr. 10, 1900.

J. H. MAHLER & C. F. DUNDERDALE.

BATTERY CASE FOR ELECTROMEDICAL APPARATUS.

(Application filed Jan. 2, 1900.)

(No Model.)

Fig. 1.

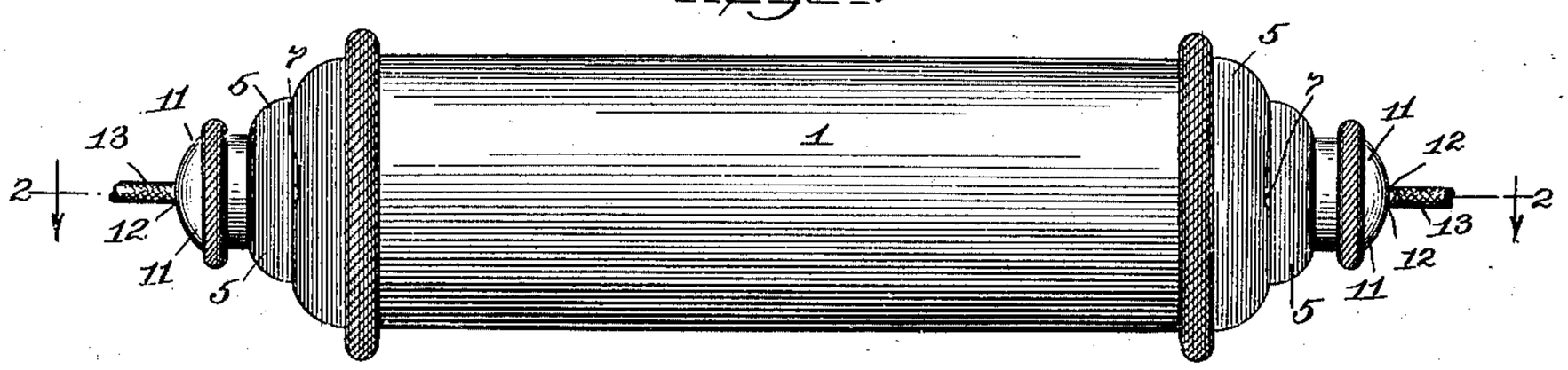


Fig. 2.

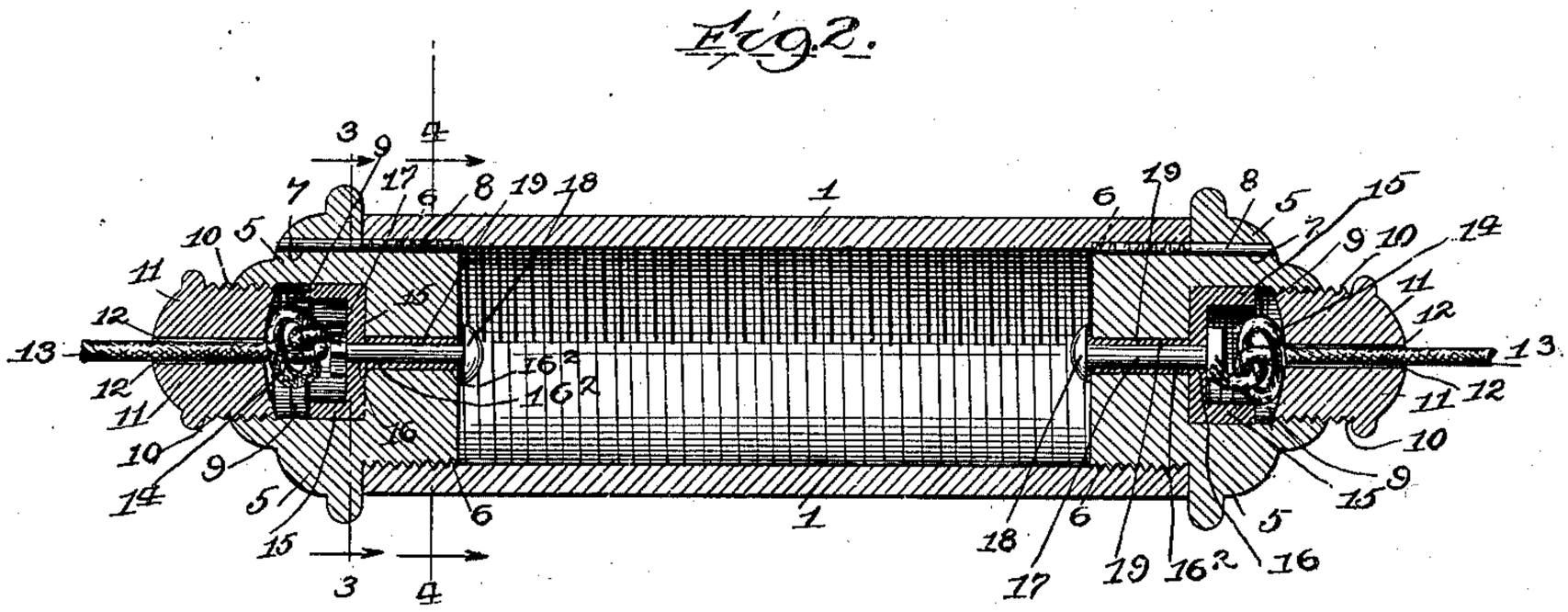


Fig. 3.

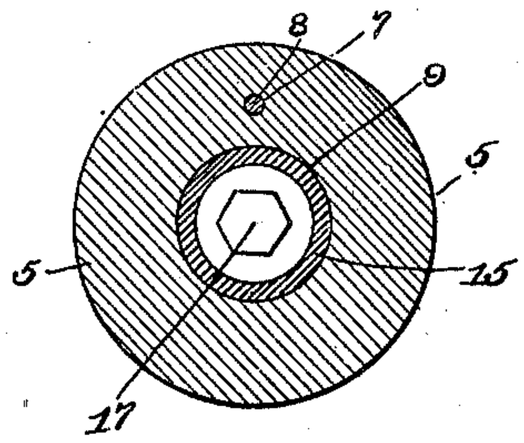
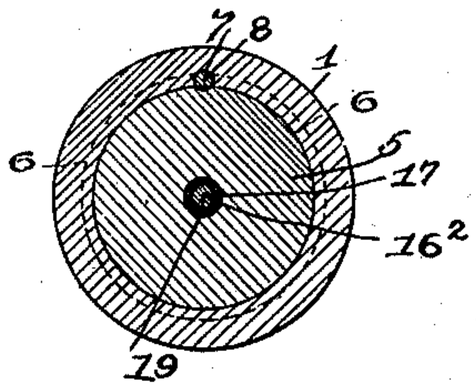


Fig. 4.



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UNITED STATES PATENT OFFICE.

JAMES H. MAHLER AND CLEAVELAND F. DUNDERDALE, OF CHICAGO, ILLINOIS; SAID DUNDERDALE ASSIGNOR TO SAID MAHLER.

BATTERY-CASE FOR ELECTROMEDICAL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 647,101, dated April 10, 1900.

Application filed January 2, 1900. Serial No. 184. (No model.)

To all whom it may concern:

Be it known that we, JAMES H. MAHLER and CLEAVELAND F. DUNDERDALE, citizens of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented new and useful Medical-Instrument Attachments, of which the following is a specification.

Our invention relates to improvements in medical instruments such as are used for supplying electric currents to the human body and as embodied in our application filed July 20, 1899, Serial No. 724,559; and the objects of our improvements are, first, to provide a head or end for a cylinder made to contain any suitable means of producing or generating a current of electricity or magnetism and to which are attached conductors for the same and connect said conductors to said source of generation of current-flow, and, second, to provide means for securing such head or end to such cylinder as to prevent its ready removal. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 shows the cylinder 1 with two heads or closed ends 5 5 in place. Fig. 2 shows a longitudinal section of the same through the sectional line 2 2 of Fig. 1. Fig. 3 shows a cross-section of the head through sectional line 3 3 of Fig. 2. Fig. 4 shows a cross-section through sectional line 4 4 of Fig. 2.

Similar figures of reference refer to similar parts throughout the several views.

Numbers 5, Fig. 2, show the head, formed of metal or other suitable material, provided with screw-threads 6 cut thereon to fit similar threads cut on the inner side or interior of cylinder 1 to permit the said heads to be screwed down firmly into the said cylinder ends. At right angle to these screw-threads on both cylinder and heads and passing through them both a hole 7 is drilled, passing up through the head 5 to its outside to enable a pin 8 to be inserted from the outside after the head has been screwed into place, thereby locking the screw-threads and preventing the unscrewing of the head until the pin is withdrawn.

A cylindrical recess 9 is bored in the head 5 and provided with a screw-thread 10 cut therein, into which a screw-threaded plug 11 is made to fit and screw therein. This screw-plug is provided with a hole 12, drilled out its entire length, and through which is drawn an insulated conducting-wire 13, having a simple knot 14 formed near its end to prevent its withdrawal and also having its end beyond the knot bared of insulating-covering.

In the bottom of the recess 9 is placed a cup 15, formed of some suitable insulating material and having a hole 16 bored in the bottom thereof, a corresponding hole 16^2 being provided in the bottom of the recessed hole 9, extending through to the outside of head 5. Into this hole a pin 17, of metal, with an enlarged head is inserted with the said enlarged head within the said cup and its other end 18 rivet-headed or enlarged to hold the cup firmly in place, or it may have a nut screwed on its end. This pin is surrounded by an insulating-tube 19 to insulate it from the mass of the head 5 in case the head should be formed of metal; but in case the head is made of hard rubber or other insulating material this would not be requisite and the material of the cup could be changed to metal instead of insulating material. The object of this pin 17 18 is to make contact with the bared end of conducting-wire 13 and hold the cup 15 firmly in position. This bared end of the wire 13 will when the screw-plug 11 is screwed down against the cup 15 be brought into contact with the enlarged end of pin 17.

The cylinder may be filled with a small dry electric battery with its two electrodes in contact with pins 17 18 of the two heads or a magnet may be inserted or other means for producing a current-flow to the pins 17 18 may be adopted, but to this part we claim no invention; but

What we claim, and desire to secure by Letters Patent, is—

1. The combination of the head 5, for cyl-

inder consisting of the screw-threaded end 6, pin 8, recess 9, cup 15, pin 17, screw-plug 11, conducting-wire 13, when arranged in the manner and for the purpose herein set forth and described.

2. The combination of the cylinder 1, the head 5, screw-threaded end 6, and pin 8, when combined and used in the manner and for the purpose herein set forth and described.

3. The combination of the cylinder 1, the head 5, recess 9, screw-plug 11, cup 15, pin 17, and conducting-wire 13, when combined and arranged in the manner and for the purpose as herein set forth and described.

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Witnesses:
JAMES B. SULLIVAN,
M. G. MAHLER.