

J. KIDDER.
Vesicular-Electrodes.

No. 164,184.

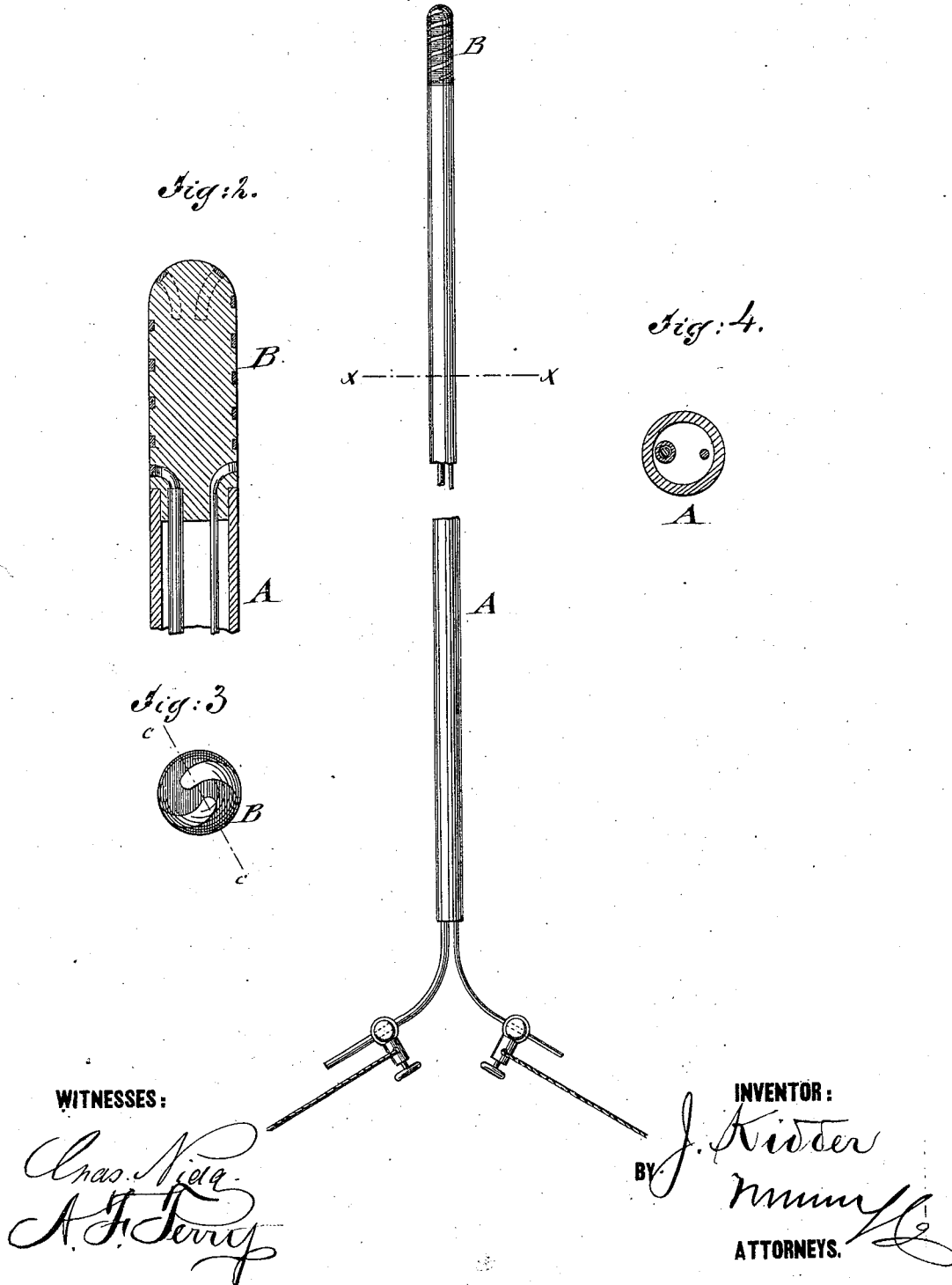
Patented June 8, 1875.

Fig: 1.

Fig: 2.

Fig: 4.

Fig: 3.



UNITED STATES PATENT OFFICE.

JEROME KIDDER, OF NEW YORK, N. Y.

IMPROVEMENT IN VESICULAR ELECTRODES.

Specification forming part of Letters Patent No. **164,184**, dated June 8, 1875; application filed March 29, 1875.

To all whom it may concern:

Be it known that I, JEROME KIDDER, of the city, county, and State of New York, have invented a new and Improved Double Vesicular Electrode, of which the following is a specification:

In the accompanying drawing, Figure 1 represents a side view of my improved vesicle electrode; Fig. 2, a detail vertical section on the line *c c*, Fig. 3, through the head of the same; Fig. 3, an end view of the head; and Fig. 4 a cross-section of the vesicle electrode on the line *x x*, Fig. 1.

Similar letters of reference indicate corresponding parts.

My invention relates to an improved double vesicular electrode of greater durability, and more convenient and safe application, than the present sliding and spring-acted electrodes for the same purpose.

The invention consists of a vesicular electrode, with solid non-conducting head into which the ends of the battery-connecting wires are embedded in such a manner as to be readily brought in contact at the side and end.

In the drawing, A represents a vesicular electrode, which is connected by the usual clamp-screws with the battery-wires. The wires of the electrode are insulated from each

other, and carried by the usual rubber or other non-conducting tubing. A rounded-off head, B, of hard rubber or similar material supports the wire ends or metallic strips of the vesicular electrode, which are applied thereto and embedded flush with the surface, preferably by being wound spirally around the same and terminated without coming in contact with each other at the outer end of the head, as shown in Fig. 3.

The vesicular electrode is introduced in the customary manner, the contact with the wires being formed readily at the side and end of head, admitting the application of electricity by a more convenient, safe, durable, and more easily-manipulated device than with the vesicular electrodes hitherto in use.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

A double vesicular electrode provided with an insulating head in which the metallic conductors are embedded flush with the surface, substantially as and for the purpose set forth.

JEROME KIDDER, M. D.

Witnesses:

PAUL GOEPEL,
T. B. MOSHER.