

(No Model.)

T. E. MORFORD.
INSULATED MAGNETIC COIL.

No. 491,491.

Patented Feb. 7, 1893.

Fig. 1

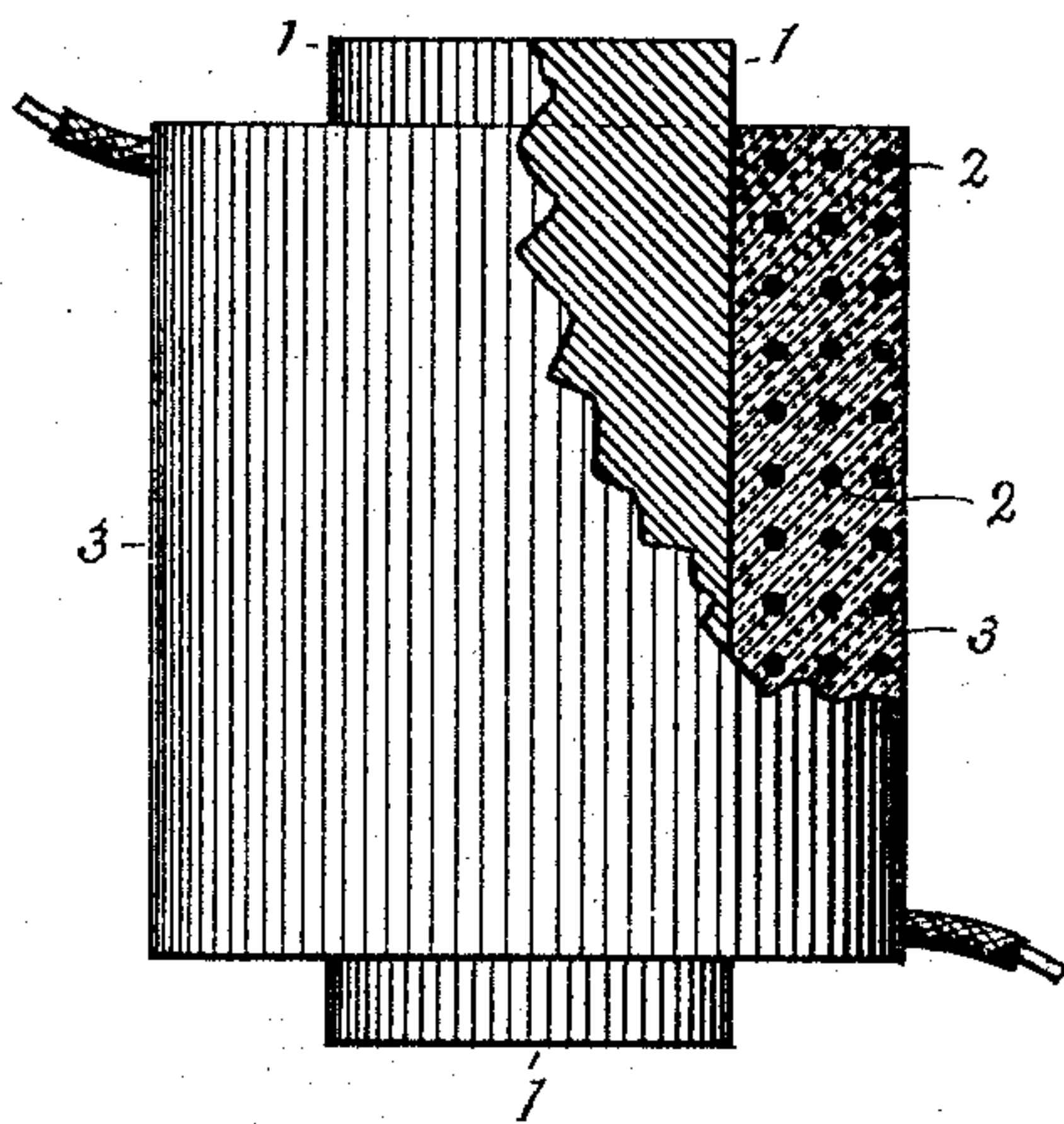
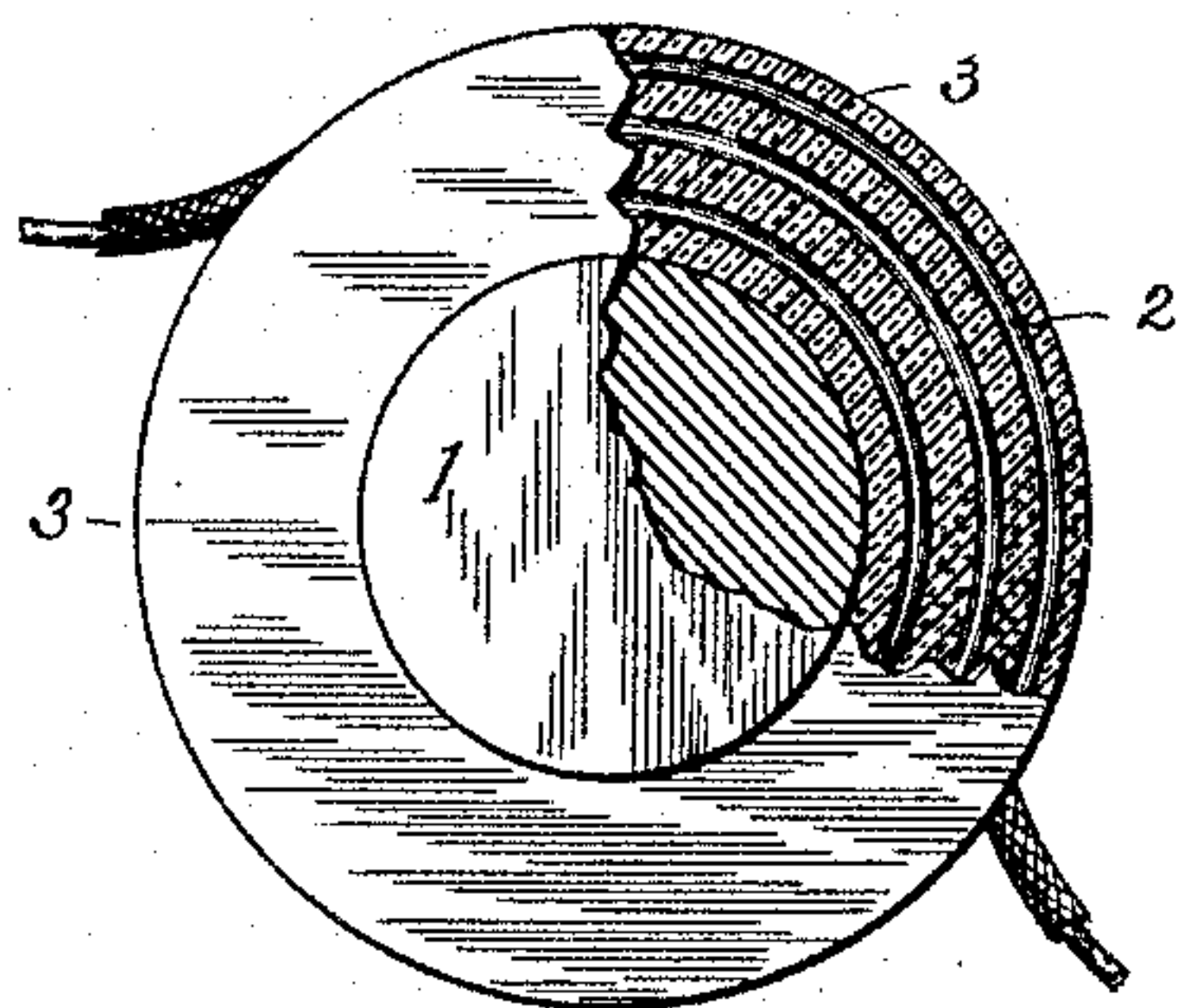


Fig. 2



Witnesses

A. L. Jones.

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UNITED STATES PATENT OFFICE.

THOMAS E. MORFORD, OF MINNEAPOLIS, MINNESOTA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, OF ONE-HALF TO THE ENAMEL INSULATOR COMPANY, OF ILLINOIS.

INSULATED MAGNETIC COIL.

SPECIFICATION forming part of Letters Patent No. 491,491, dated February 7, 1893.

Application filed January 28, 1891. Serial No. 379,380. (No model.)

To all whom it may concern:

Be it known that I, THOMAS E. MORFORD, a citizen of the United States, residing at Minneapolis, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Insulated Magnetic Coils, of which the following is a specification.

My invention relates to the means for insulating the conducting wires of magnets, and has for its object the complete embedding of the wires in a continuous body of suitable insulating material.

My invention is illustrated in the accompanying drawings in which,

Figure 1 is a side elevation, partly in section, of a magnet embodying my improvement; and Fig. 2 is an end view of the same, showing portions in transverse section.

In said drawings 1 designates the core and 2 the coil-wires. The insulating material, 3, for the wires consists of an enameling substance, or equivalent substance, completely surrounding and separating all portions of the coils of the conducting wire, thus separating them from one another and from the core. The insulating substance may be applied in successive layers and hardened when

each series of the coils has been wound, or, by having the substance of suitable consistency the coils may all be wound before the substance is baked or otherwise hardened.

Having described my invention, what I claim is:

1. In a magnet, the combination with the core and coils of an enamel in which the coils are embedded, substantially as set forth.

2. In a magnet, a core and coils, and an insulator consisting of an enamel made adherent to both the core and coils, substantially as set forth.

3. In a magnet, the combination with a suitable core, of coils insulated therefrom and embedded in an enamel, substantially as set forth.

4. In a magnet, the combination with the core, of coils and an insulator consisting of an enamel applied in layers to the core and hardened after each series of coils is wound, substantially as set forth.

THOMAS E. MORFORD.

Witnesses:

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