

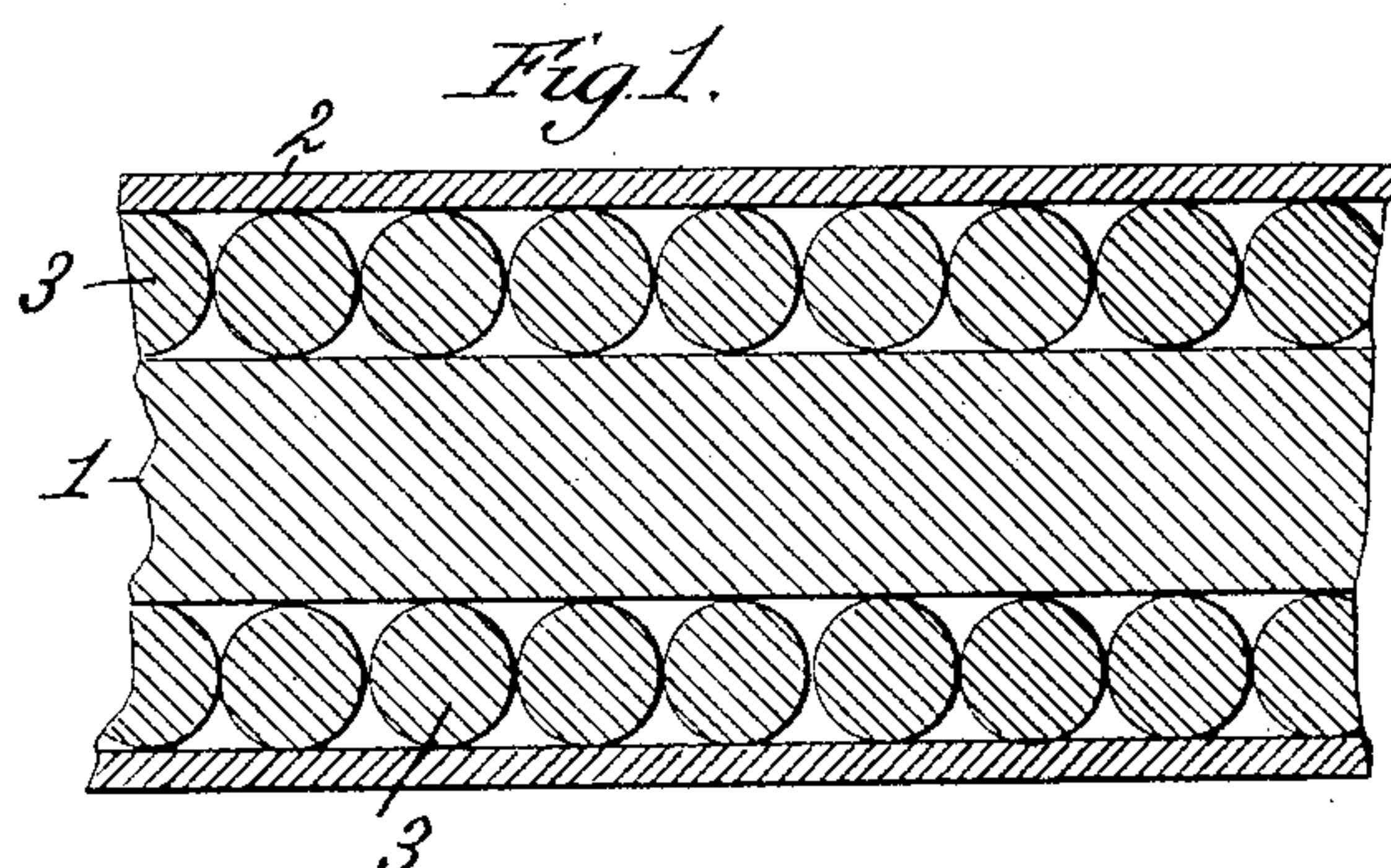
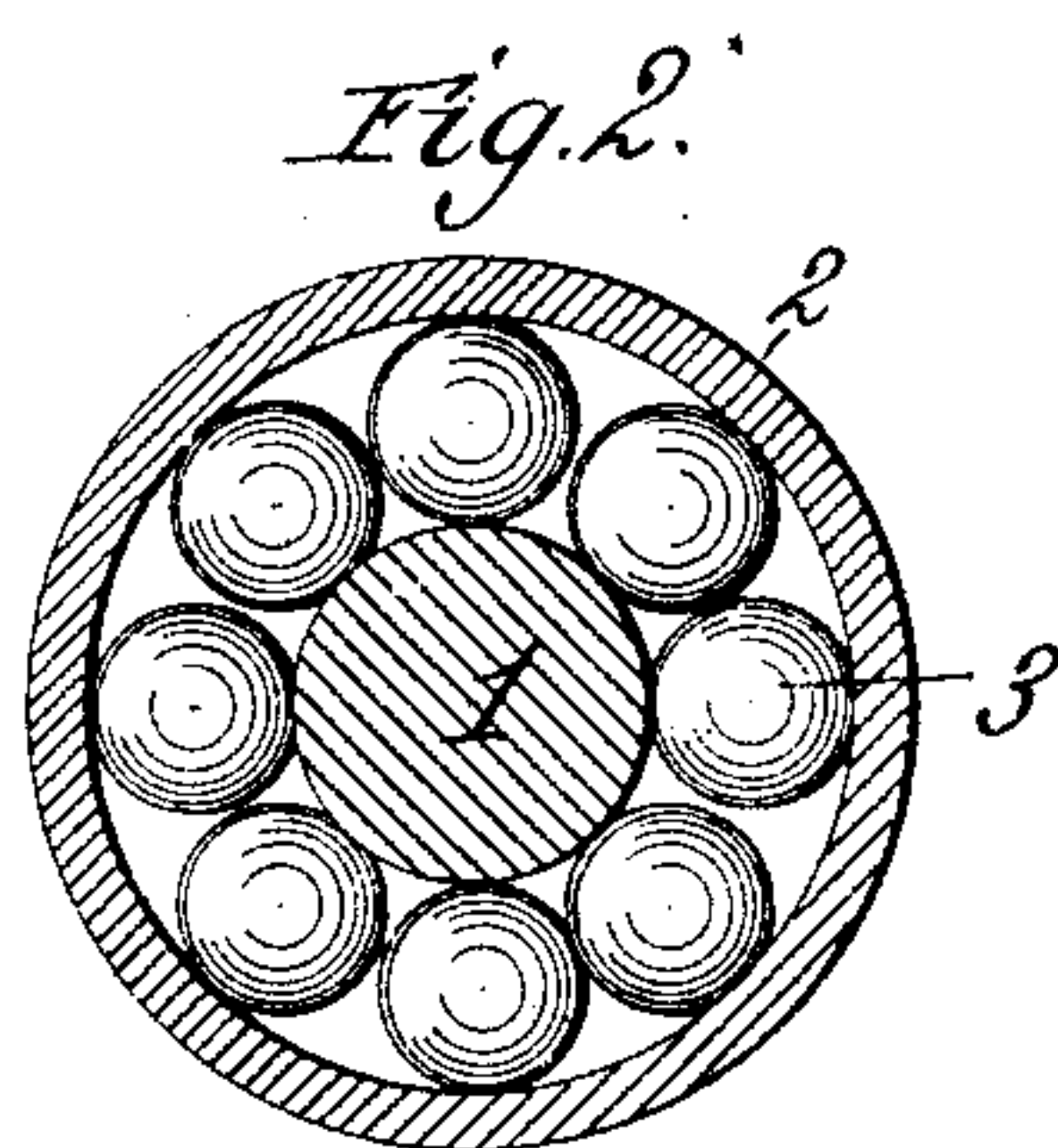
(No Model.)

L. DION.

MEANS FOR THE INSULATION OF CONDUCTORS OF ELECTRICITY.

No. 536,857.

Patented Apr. 2, 1895.



WITNESSES
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UNITED STATES PATENT OFFICE.

LÉON DION, OF NATICK, MASSACHUSETTS.

MEANS FOR THE INSULATION OF CONDUCTORS OF ELECTRICITY.

SPECIFICATION forming part of Letters Patent No. 536,857, dated April 2, 1895.

Application filed December 6, 1894. Serial No. 531,034. (No model.)

To all whom it may concern:

Be it known that I, LÉON DION, a citizen of the United States, residing at Natick, in the county of Middlesex and State of Massachusetts, have invented new and useful Improvements in Means for the Insulation of Conductors of Electricity, of which the following is a specification.

My invention relates to means for the insulation of conductors of electricity, my purpose being to provide an electrical conductor which shall be capable of complete flexibility, which may be laid underground or supported over head without requiring insulating supports, and which shall be perfectly isolated and protected at every point from all danger of leakage, or waste of current. It is my purpose, also, to provide a perfect insulation for electrical conductors at a comparatively low cost, and of such character that currents of high tension may be carried by wires thus protected, without danger of loss, or waste of energy.

My invention consists, to these ends, in the novel features of construction and new combinations of parts hereinafter fully explained, and then particularly pointed out in the claims.

To enable others to understand and to make and use my said invention I will describe the same in detail, reference being had, for this purpose, to the accompanying drawings, in which—

Figure 1, is a central longitudinal section of a conductor of electricity insulated by my invention. Fig. 2, is a transverse section of the same.

The reference-numeral 1, in said drawings indicates a conductor of electricity, consisting of a wire of any suitable diameter, formed of pure copper.

The numeral 2 denotes a sheath, composed of any suitable material, such as rubber, felt, textile fabric, or a braided covering, which may even consist, wholly, or in part, of metallic wire, though I prefer non-metallic substances as being more flexible. Between the sheath, or cover, and the conductor 1 are in-

serted glass balls 3, of substantially uniform diameter, formed of pure glass from which the iron, or other metal, has been wholly eliminated. The entire annular space is filled with these balls and the wire is held thereby at all points uniformly distant from the surrounding sheath or cover, so that it has equal protection and insulation at every point.

When the sheath is used in positions where exposure to snow and rain is unavoidable it will be preferable to use an impervious sheath, made of rubber, or other water-proof material or coated therewith, whereby the interior is kept free from wet and moisture and loss of energy from this cause is avoided.

The invention provides a perfect insulation at a low cost, without impairing the flexibility of the conductor. It dispenses with the necessity of using special insulations at the different points at which the cable is supported and enables high tension currents to be carried and the wires to be handled without danger.

What I claim is—

1. An insulation, for electric conductors, consisting of a waterproof sheath, a conductor arranged therein, and glass balls interposed in and filling the space between the sheath and conductor, substantially as described.

2. An insulation for electric conductors, consisting of a sheath or cover of rubber and glass balls interposed between the same and said conductor, substantially as described.

3. An insulation for electrical conductors, consisting of a sheath, or cover, surrounding a copper wire, and glass balls free from all trace of metal and of substantially uniform diameter, said balls being inserted closely together in an annular space between said conductor and sheath, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

LÉON DION.

Witnesses:

FRED JOY,
N. A. DEXTER.