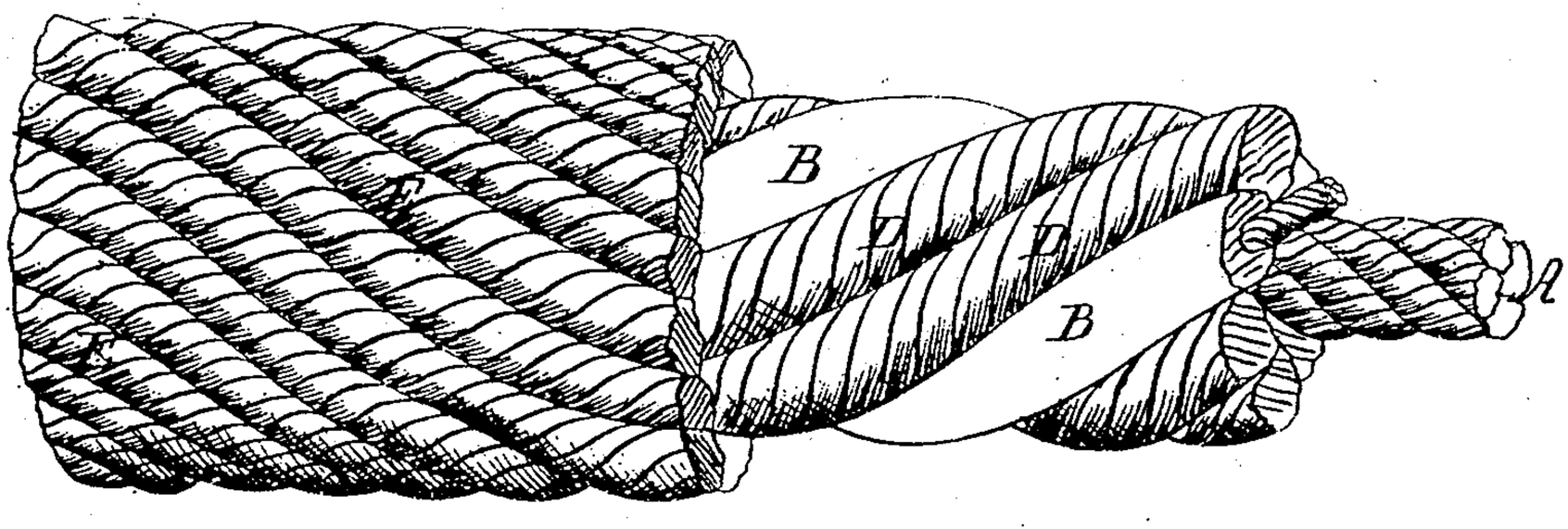
J. L. Arman.

Electrical Conductor.

No. 73,487. Patented Jan. 21, 1868.



Witnesses;
Wm. Albert Sleeper
John Parker

Inventor;
J. L. Arman
By his Atty
P. Howson

United States Patent Office.

JEAN LUCIEN ARMAN, OF BORDEAUX, FRANCE.

Letters Patent No. 73,487, *dated January* 21, 1868.

IMPROVEMENT IN ELECTRIC CABLES.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, JEAN LUCIEN ARMAN, of Bordeaux, in the Empire of France, have invented an Electrical, Floating, Extensible Cable; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

My invention consists in constructing an electric cable in the peculiar manner fully described hereafter, in order that it may possess the properties of appropriate strength, expansibility, pliability, and buoyancy, which permit it to be paid out without danger of breaking, and allow it to be suspended in the water at such a depth that it will be unaffected by the waves and currents, the cable at the same time being easily raised when repairs are necessary.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe the manner of constructing the same.

The accompanying drawing represents my improved electric cable, the central core, A, of which is made of a suitable number of strands of Manilla hemp or other fibre of a non-spongy character, twisted in a helical form, as illustrated in the drawing. Round this central core I coil, spirally, one or more electric cables, B, consisting, as usual, of wires surrounded by gutta percha, together with fibrous strands D, and round the whole are coiled strands, E, of "bast," (fibres made from the bark of the linden tree,) or other fibrous strands which possess the property of floating in water.

In laying this cable, it is delivered from a vessel, followed by another, which carries a series of weights, to be attached to the cable at suitable intervals, so as to sink the same to such a depth that it will be unaffected by violent waves and currents.

It will be seen that the cable, owing to the spiral arrangement of the wires, that of the insulating-gutta-percha covering of the same, and the coiling of the strands composing the core and outer covering, possesses the properties of expansibility and pliability to such an extent, that it can be delivered out without danger of breaking, or interfering with the integrity of the wires.

I propose to attach to the cable, at desirable intervals, buoys for indicating its position, and, in some cases, to connect to the cable floating light-houses, which may be of great utility to navigators.

Instead of making the outer cover of coiled fibrous strands, it may be made of net-work, which will permit expansion of the cable. The cover, however, should in all cases be made of fibres of the least absorbent quality, so that proper buoyancy may be insured.

One of the main advantages of the cable is the facility with which it can be raised when repairs are necessary.

I claim as my invention, and desire to secure by Letters Patent—

An electric cable, having a core, A, of fibrous strands, surrounded by insulated wires B and fibrous strands D, and enclosed in an outer covering of strands E, of buoyant material, when the said strands and wires are twisted and arranged, in respect to each other, as set forth.

In testimony whereof, I have signed my name to this specification before two subscribing witnesses.

L. ARMAN.

Witnesses:

E. REINARD,

E. SHERMAN GOULD.