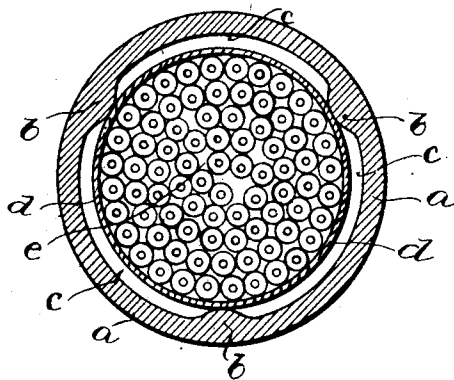


(No Model.)

W. R. PATTERSON.  
ELECTRIC CABLE.

No. 476,484.

Patented June 7, 1892.



Witnesses:

*George L. Cragg*  
*M. Jeanne Tallett.*

*Inventor*

*William R. Patterson*

*by Barton & Brown*  
*attys.*

# UNITED STATES PATENT OFFICE.

WILLIAM R. PATTERSON, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE WESTERN  
ELECTRIC COMPANY, OF SAME PLACE.

## ELECTRIC CABLE.

SPECIFICATION forming part of Letters Patent No. 476,484, dated June 7, 1892.

Application filed October 29, 1891. Serial No. 410,241. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM R. PATTERSON, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Cables, of which the following is a full, clear, concise, and exact description, reference being had to the accompanying drawing, forming a part of this specification.

My invention relates to cables in which a core consisting of insulated conducting wire or wires is surrounded by a sheath of lead or similar material; and its object is to secure a cable of low electrostatic capacity and at the same time one in which the sheath will not be liable to buckle when the cable is bent. It is well known that in order to make a cable of the lowest electrostatic capacity a large part of the insulating material must be air and the core must fit loosely in the sheath. To accomplish this, a soft and yielding core is required, so that when a large cable so made with a soft and yielding core is bent, as it is necessary to do in coiling it around manholes and in other similar situations, the pipe buckles to such an extent that it is impracticable to straighten it out without breaking the pipe. If, on the other hand, the core is made hard and dense and the sheath fits the core tightly, the cable can be bent more readily; but the electrostatic capacity of the conductors is thereby increased and the electrical efficiency of the cable consequently di-

minished. To secure rigidity and at the same time retain the soft core and the air-spaces, which are an essential feature of the low-capacity cable, I make the sheath with interior projecting longitudinal ribs, preferably integral with the sheath. These ribs bear against the core, leaving the spaces between the ribs filled with air.

A better understanding of my invention will be obtained by reference to the accompanying drawing, in which the pipe *a* has upon its interior and running longitudinally with the pipe the ribs *b b b*, preferably integral with the pipe and formed upon its inner surface in the process of drawing the pipe. The air-spaces *c c c* are between outer serving *d* of the core *e* and the inclosing sheath or pipe, which is preferably formed of lead, or an alloy of lead.

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

In an electric cable, the combination, with a core of insulated conductor or conductors, of an exterior metallic sheath having interior projecting longitudinal ribs in contact with the core, substantially as described.

In witness whereof I hereunto subscribe my name this 17th day of October, A. D. 1891.

WILLIAM R. PATTERSON.

Witnesses:

FRANK R. MCBERTY,  
GEORGE L. CRAGG.