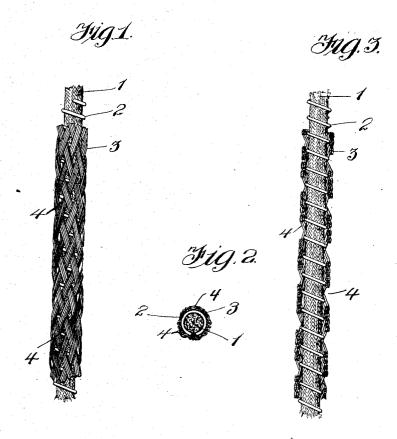
## E. J. KRESS.

LIGHTNING ROD. APPLICATION FILED OOT. 10, 1908. RENEWED MAY 11, 1910.

974,396.

Patented Nov. 1, 1910.



E. J. KRESS;

THE NORRIS PETERS CO., WASHINGTON, D. C.

## UNITED STATES PATENT OFFICE.

EDWARD J. KRESS, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR, BY DIRECT AND MESNE ASSIGNMENTS, TO WILLIAM M. LEATHERMAN, OF PITTSBURG, PENNSYLVANIA.

## LIGHTNING-ROD.

974,396.

Specification of Letters Patent.

Patented Nov. 1, 1910.

Application filed October 10, 1908, Serial No. 457,189. Renewed May 11, 1910. Serial No. 560,729.

To all whom it may concern:

Be it known that I, EDWARD J. KRESS, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Lightning-Rods, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to lightning rods, and the primary object of my invention is to provide a positive and reliable conductor for lightning that will at all times be maintained in a high state of conductivity, particularly during a storm or by the ground or place of grounding.

Another object of my invention is to provide a simple and inexpensive lightning rod that cannot be affected by oxidation.

A further object of the invention is to obviate the necessity of using special grounding devices for grounding a lightning rod.

With the above and other objects in view which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter described and then specifically claimed.

In the drawings:—Figure 1 is a side elevation of a portion of the lightning rod constructed in accordance with my invention, Fig. 2 is a cross sectional view of the same, and Fig. 3 is a vertical sectional view of a portion of the lightning rod.

To put my invention into practice, I provide a cotton or hemp rope 1 with an exterior winding 2 of a helical form, said winding being preferably made of copper wire with the ends thereof suitably connected to the rope 1. The winding 2 serves as an auxiliary to the conductive or attractive

force of the rope 1, and to further increase the conductivity and at the same time provide a strong and durable covering for the 45 rope 1 and the winding 2, I incase the rope 1 and the winding 2 in a woven wire tube 3, said tube being made of strands of small copper wire interwoven to provide interspaces 4, the object of which will presently 50 appear.

While I have herein simply illustrated a section of a lightning rod constructed in accordance with my invention, it will be observed that the lightning rod can be made 55 of various lengths, with the upper end of the rod connected to an ordinary point or weather vane (not shown) commonly used in connection with lightning rods.

With the lower end of the lightning rod 60 fixed in the ground, a well, or a stream of water, the cotton or hemp rope 1 will absorb moisture and water for a considerable distance of its length, and during a rain storm, the rain will enter the spaces 4 and saturate 65 the rope 1, thereby providing an effective conductor for lightning.

Having now described my invention what

Having now described my invention what I claim as new, is:—

A lightning rod formed of a fibrous 70 core, a helical winding of wire around said core, and an inclosing covering of interwoven wire, the inclosing covering having interspaces, as and for the purpose described.
 A lightning rod comprising a core of 75

2. A lightning rod comprising a core of absorbent material, and a woven wire tube incasing said core, said woven wire tube having interspaces.

In testimony whereof I affix my signature in the presence of two witnesses.

EDWARD J. KRESS.

Witnesses:

H. C. EVERT, H. A. ANDERSON.