

No. 695,726.

Patented Mar. 18, 1902.

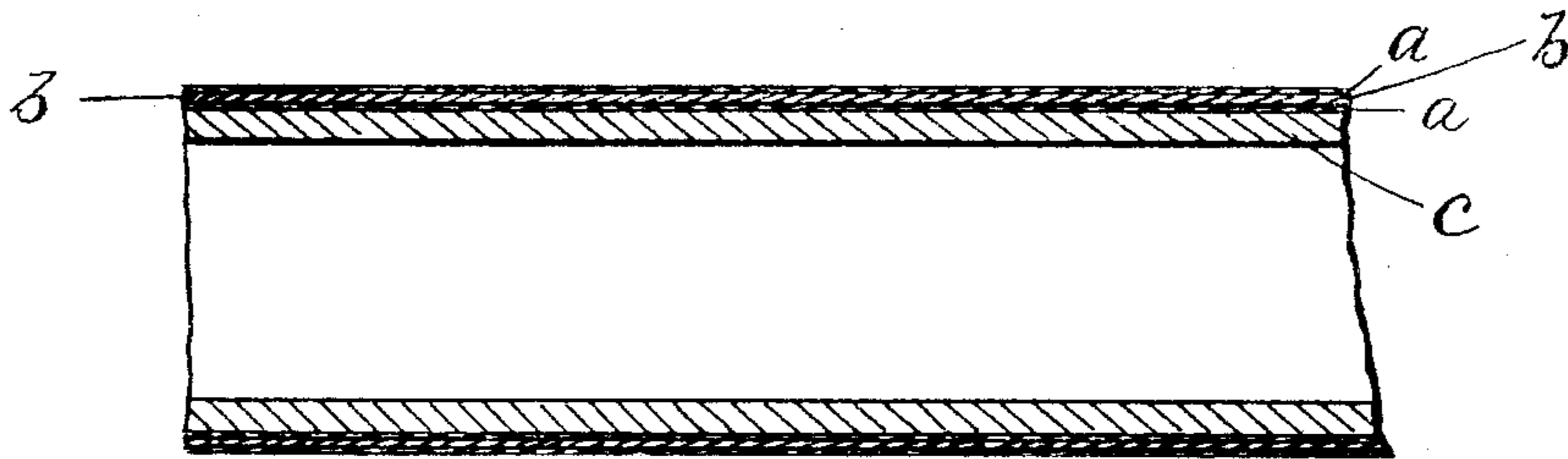
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COVERING FOR PIPES, RODS, ELECTRIC LINE CONDUCTORS, OR THE LIKE.

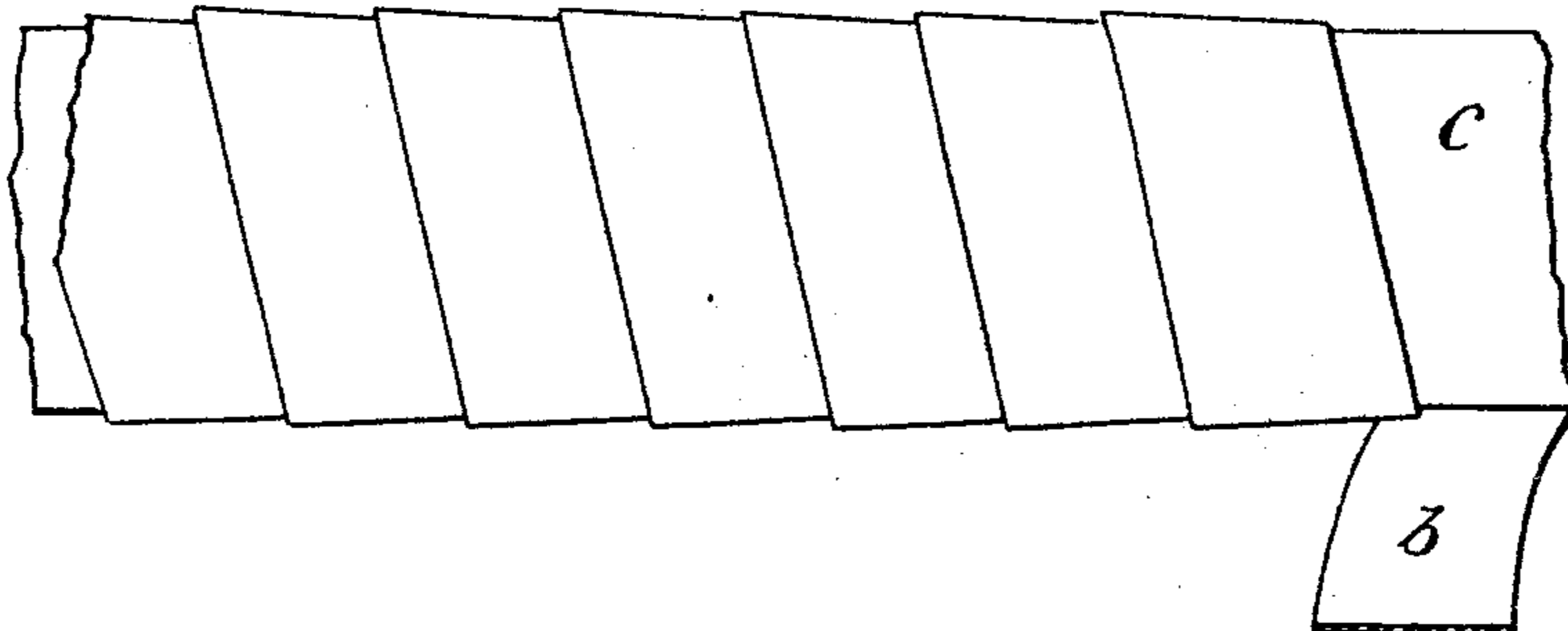
(Application filed Aug. 20, 1901.)

(No Model.)

*Fig. 1*



*Fig. 2.*



Witnesses

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# UNITED STATES PATENT OFFICE.

OLIVER T. HUNGERFORD, OF BROOKLYN, NEW YORK.

COVERING FOR PIPES, RODS, ELECTRIC LINE CONDUCTORS, OR THE LIKE.

SPECIFICATION forming part of Letters Patent No. 695,726, dated March 18, 1902.

Application filed August 20, 1901. Serial No. 72,726. (No model.)

*To all whom it may concern:*

Be it known that I, OLIVER T. HUNGERFORD, a citizen of the United States of America, residing in the city of Brooklyn, county of Kings, State of New York, have invented a certain new and useful Improvement in Coverings for Pipes, Rods, Electric Line Conductors, or the Like, of which the following is a description, reference being had to the accompanying drawings, wherein—

Figure 1 is a view in central vertical section of a portion of a pipe or hollow electric line conductor covered in accordance with this improvement. Fig. 2 is a side view of a portion of an electric line conductor covered in accordance with this improvement, the procedure in utilizing that improvement being modified as compared with the mode of procedure followed in utilizing that improvement in Fig. 1.

The object of the improvement is the covering (and in the case of an electric line conductor the insulation) of a pipe, rod, or electric line conductor by means of a certain compound, applying first a layer of the compound, then a layer of paper, and then another layer of compound over the paper covering. The paper with a coating of the compound adherent thereto upon one or both sides is usable and valuable for purposes such as those just suggested.

The compound itself is composed of pulverized silica, talc, or kaolin—one, two, or all three used at the same time—in intimate combination with rosin or asphaltum (preferably rosin) and rosin-oil. This compound may be made by first melting the rosin in a suitable vessel, when it is melted adding the rosin-oil and stirring the two well together, and then adding the pulverized silica, talc, or kaolin, stirring this addition intimately and thor-

oughly as it is added until the required consistency is reached. This compound may be made non-inflammable to a practical degree by adding to the compound when it is hot and fluid oxid of zinc, oxid of lead, or alum in a powdered condition. The proportions, by weight, in one hundred and one pounds may well be eighty pounds of silica, ten pounds of rosin, ten pounds of rosin-oil, and one pound of oxid of zinc.

In utilizing this improvement as illustrated in Fig. 1 the compound *a* may be laid upon the surface of the pipe, bar, or conductor *c* by a dipping or by successive dippings of the pipe, bar, or conductor in the molten compound. In practice the pipe, bar, or conductor is run through such molten bath such a number of times as is necessary to lay upon it a coating of the desired thickness. Then the strip of paper *b* is wound spirally thereabout, (something that is illustrated in Fig. 2.) After the covering of paper is on then the whole is treated to successive baths in the molten compound until an outer coating is laid thereupon to the desired depth.

Another mode of utilizing this improvement is to coat both sides of a strip of paper with the compound and then wind that strip of paper thus coated spirally and with overlaps upon the pipe, bar, or conductor, as shown in Fig. 2. A little heat and pressure applied to the structure will make it permanent.

I claim as my improvement—

A pipe, bar or conductor coated with a compound of silica, rosin and rosin-oil, and with paper.

OLIVER T. HUNGERFORD.

Witnesses:

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