No. 634,169. Patented Oct. 3, 1899.

E. T. GREENFIELD.

FLEXIBLE ELECTRICAL CONDUIT OR TUBE.

(Application filed July 17, 1899.)

(No Model.)

Fig. 1.

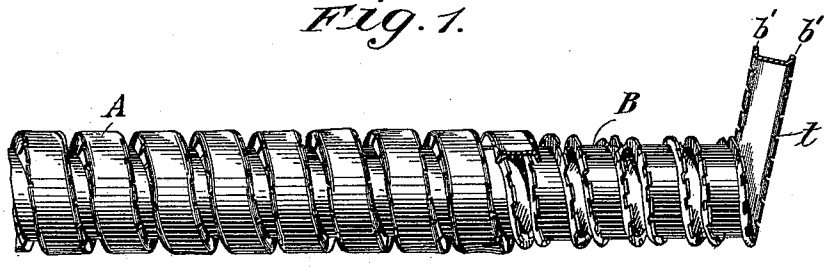


Fig. 2.

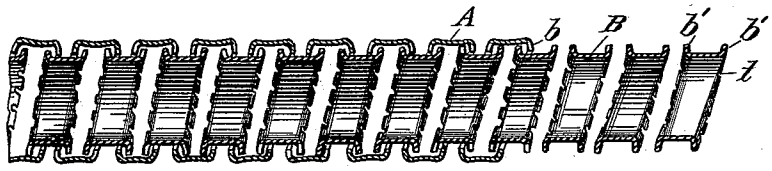


Fig. 3.

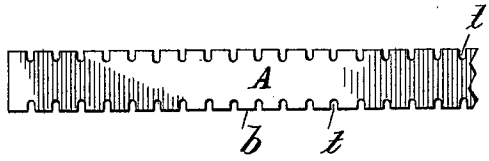
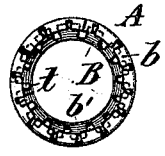


Fig. 4.



Witnesses
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THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

EDWIN T. GREENFIELD, OF NEW YORK, N. Y.

FLEXIBLE ELECTRICAL CONDUIT OR TUBE.

SPECIFICATION forming part of Letters Patent No. 634,169, dated October 3, 1899.

Application filed July 17, 1899. Serial No. 724,061. (No model.)

To all whom it may concern:

Be it known that I, EDWIN T. GREENFIELD, a citizen of the United States, residing at New York, in the borough of Manhattan, county of New York, and State of New York, have made a new and useful Improvement in Flexible Electrical Conduits or Tubes, of which the following is a specification.

My invention is directed particularly to an improvement in that type of electrical conduits disclosed in a prior application for a patent filed by me in the United States Patent Office on the 12th day of December, 1898, bearing Serial No. 698,973, the invention therein disclosed being in the nature of a flexible metallic tube made of spirally-wound interlocking strips of metal; and the present improvement has for its object to devise a flexible tube of the character indicated in which the interlocking spiral parts thereof may be wound one upon the other, the tube disclosed in the before-mentioned application being constructed by forcing the spiral strips through a screw-threaded die, whereby the interlocking parts are caused to assume their interlocking relation.

My present improvement renders it possible to form such a tube by winding the strips spirally one about the other, and it will be understood by referring to the accompanying drawings, in which—

Figure 1 is a side elevational view of a short section of my improved tube, partly broken away at the right-hand end to better show the interior structure thereof. Fig. 2 is a longitudinal sectional view of Fig. 1. Fig. 3 is a developed plan view of one of the metallic strips with its serrated edges before the same are turned down so as to give to them the proper concavity. Fig. 4 is an end elevational view as seen looking at Fig. 1 from the left toward the right hand side of the drawings.

Referring to the drawings in detail, A and B represent two interlocking metallic strips wound spirally the one about the other. In constructing these strips I serrate the edges thereof in any preferred manner, as shown at *t*, so as to constitute lateral teeth *b b b' b'*. These teeth are then bent so that those of the outer strip are bent inward, while those of the inner strip are bent outward, and the two strips are then wound spirally, so that their edges interlock in the manner shown. In this manner I am enabled to construct the interlocking strips with their lateral edges formed substantially at right angles to the backs of the strips, thereby giving to the structure a greater strength than was possible with a curvilinear interlocking strip, as disclosed in the before-mentioned application and also disclosed in the interlocking armor of electric cables and electric conduits in prior patents heretofore granted to me.

I desire it to be understood that the novel form of conduit herein disclosed may be used for various purposes other than for electrical insulation wherein it is desired to utilize a flexible metallic tube, and my claims include all such uses.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. A flexible metallic conduit or tube constructed of spirally-wound strips having their edges serrated and turned up and down, substantially as described.

2. A flexible metallic conduit or tube constructed of two spirally-wound strips of metal having interlocking serrated edges, substantially as described.

3. A flexible metallic conduit or tube constructed of two spirally-wound strips of metal having interlocking serrated edges, the edges of the inner strip being bent outward and those of the outer strip inward, substantially as shown and described.

In testimony whereof I have hereunto subscribed my name this 5th day of July, 1899.

EDWIN T. GREENFIELD.

Witnesses:
C. J. KINTNER,
M. F. KEATING.