

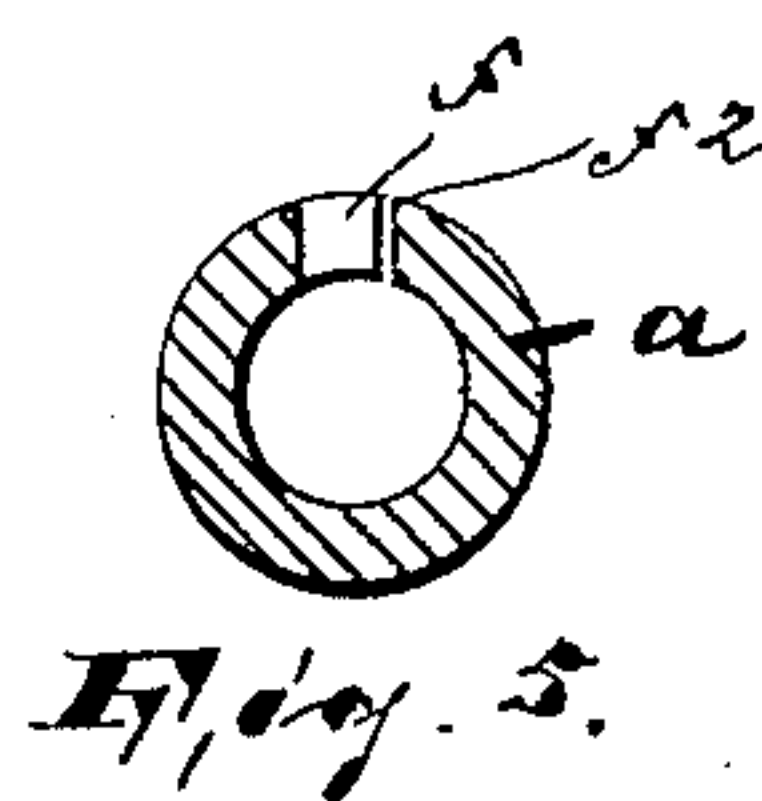
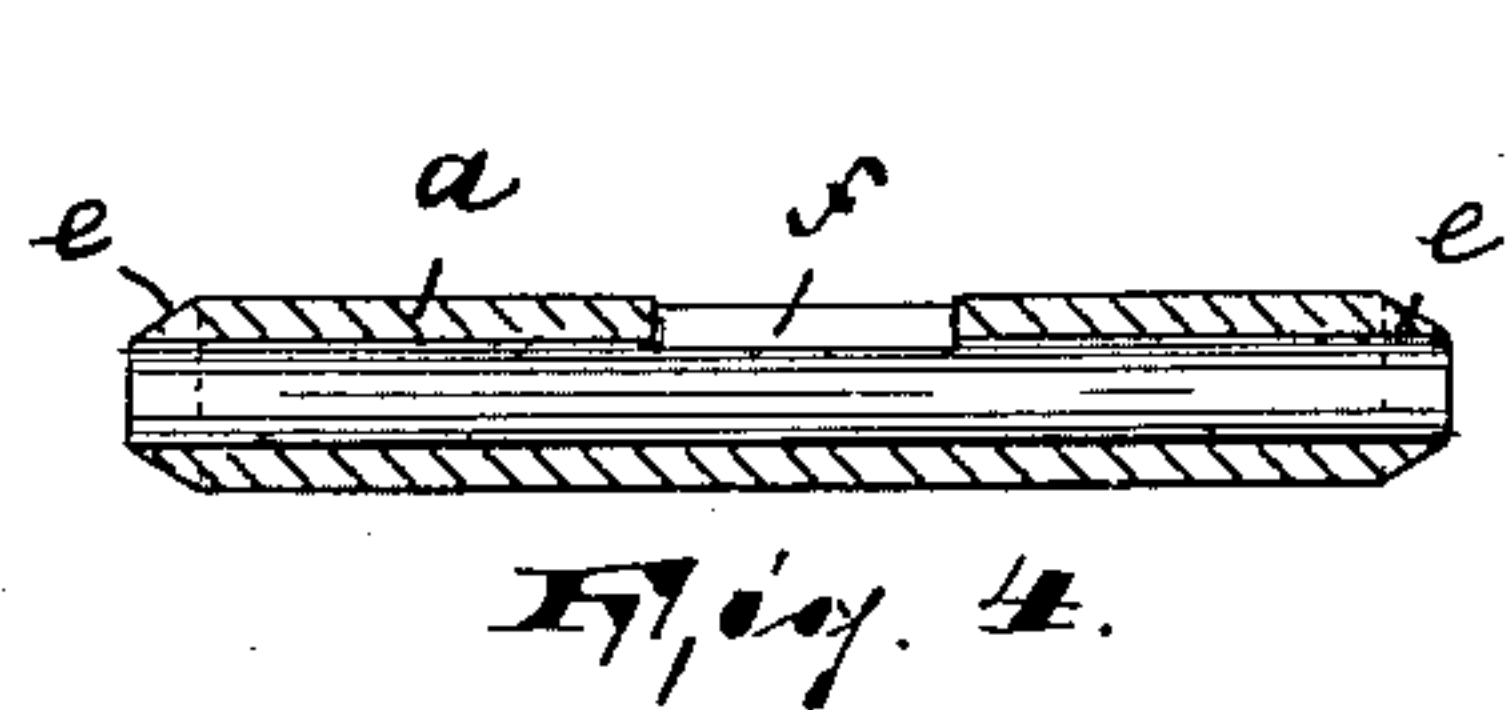
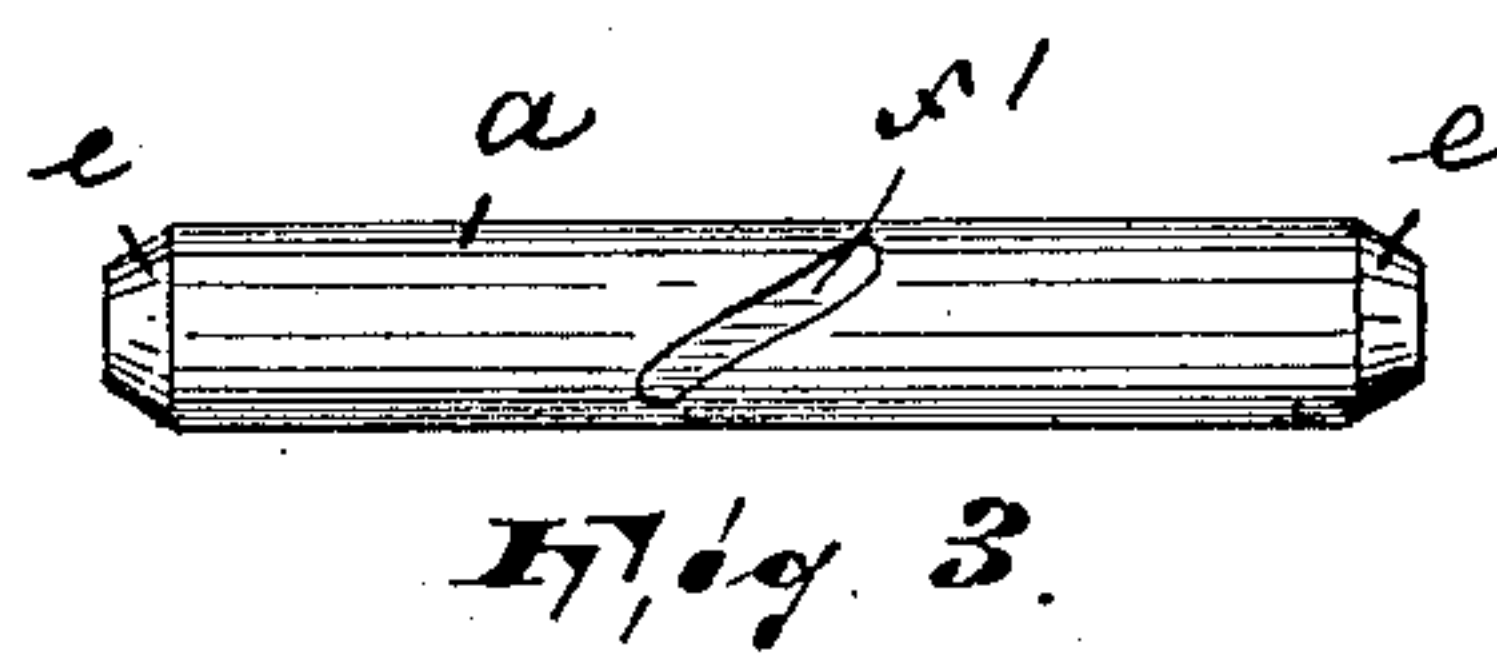
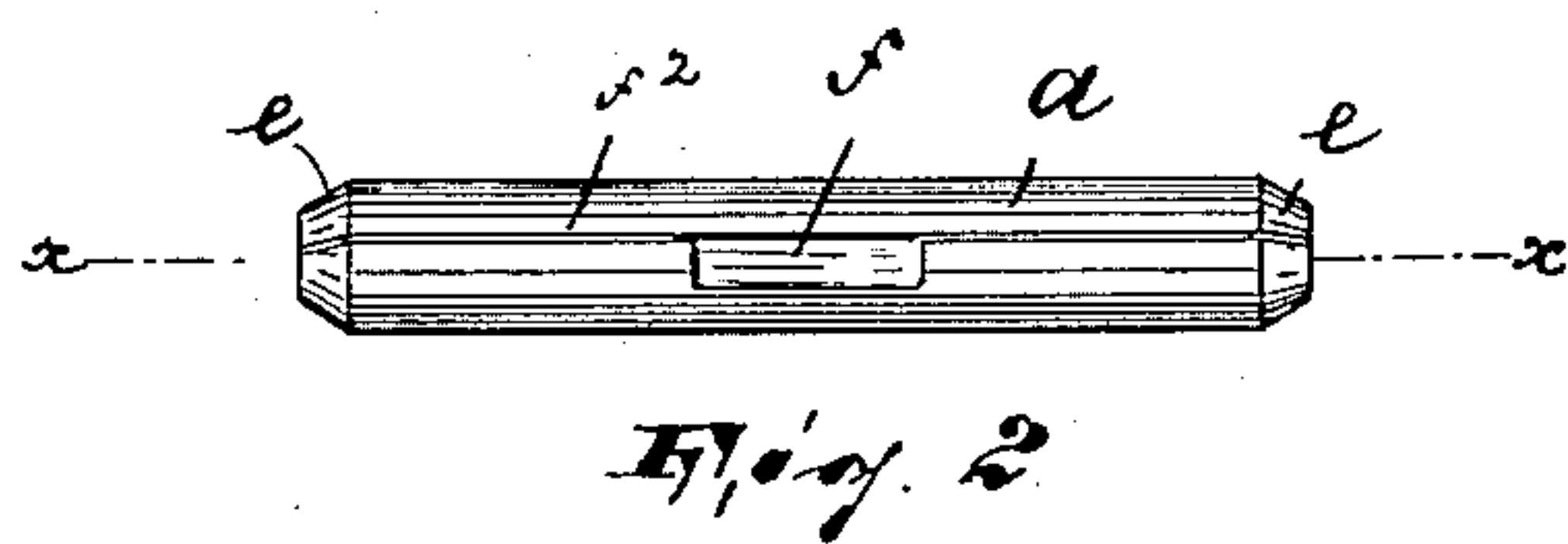
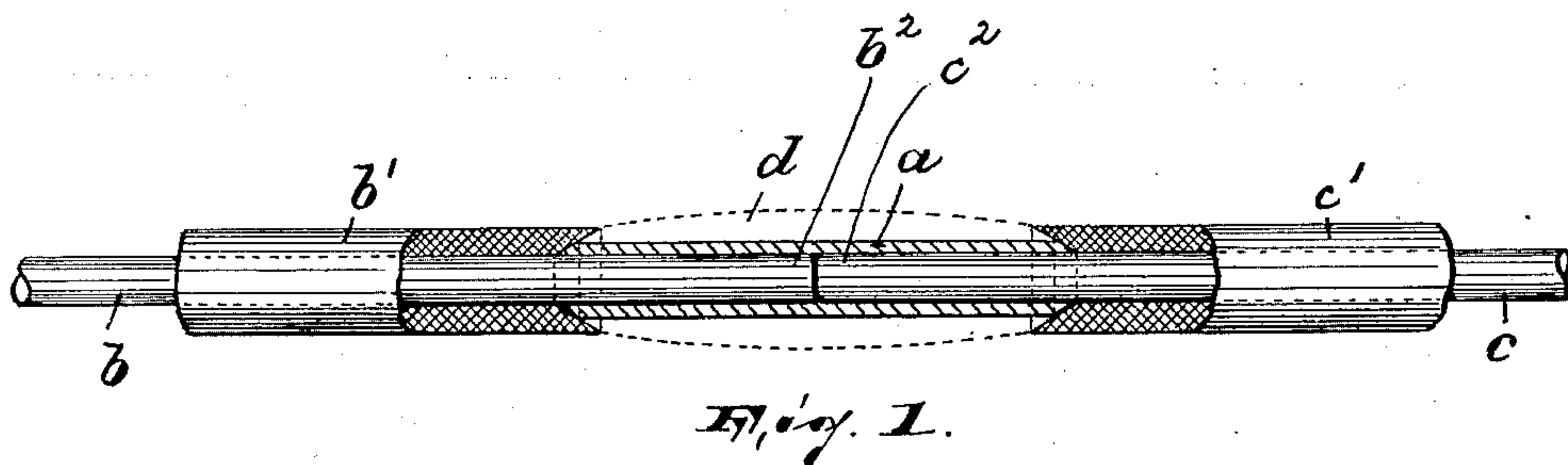
No. 653,033.

Patented July 3, 1900.

C. H. McINTIRE.  
WIRE SLEEVE OR CONNECTOR.

(Application filed Mar. 16, 1900.)

(No Model.)



WITNESSES:

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BY

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# UNITED STATES PATENT OFFICE.

CHARLES H. MCINTIRE, OF NEWARK, NEW JERSEY.

## WIRE SLEEVE OR CONNECTOR.

SPECIFICATION forming part of Letters Patent No. 653,033, dated July 3, 1900.

Application filed March 16, 1900. Serial No. 8,896. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES H. MCINTIRE, a citizen of the United States, residing in Newark, county of Essex, and State of New Jersey, have invented certain new and useful Improvements in Wire Sleeves or Connectors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

My present invention relates to improvements in connectors or joints for electric conductors, and is especially applicable to joining insulated wires or cables. Its object is to provide a simple, inexpensive, and effective connector for electric conductors which can be readily adjusted on and secured to the conductors to be jointed, and which connector besides strengthening the joint will furnish a perfect electrical contact.

The invention consists in the improved connector and in the combination and arrangement of the various elements thereof, substantially as will be hereinafter more fully described, and finally embodied in the clauses of the claim.

Referring to the accompanying drawings, in which like letters of reference indicate corresponding parts in each of the several views, Figure 1 is a front elevation, partly in section, of a joint made with my improved connector; Fig. 2, a detail view of the connector detached; Fig. 3, a view similar to Fig. 2, showing a slight modification; Fig. 4, a sectional view on the line  $xx$  of Fig. 2, and Fig. 5 an enlarged cross-sectional view through the central portion of Fig. 2.

In said drawings,  $a$  represents a metallic tube circular in cross-section and provided with a longitudinal slit  $f^2$ , Figs. 2 and 5, and having its ends beveled, as at  $e e$ , and also provided in its central portion with an elongated slot or opening  $f$ , either arranged in alinement with the slit  $f^2$ , as in Fig. 2, or diagonally, as at  $f'$ , Fig. 3.

The wires  $b c$  to be jointed are first stripped of their insulation material  $b'$  and  $c'$  to a length about equal to one-half the length of

the connector and are then inserted from opposite sides into the connector  $a$ . Solder is then poured into the slit and is allowed to flow around the conductors, whereby a good electrical contact is made between the parts, and besides the joint is sealed. While the solder is being poured into the slit and around the conductors the air contained in the connector is expelled through the slot  $f$  or  $f'$ , and after said air is so expelled solder is poured into said slot  $f$  or  $f'$ , closing the latter and at the same time uniting the end portions  $b^2$  and  $c^2$  of the conductors, and thus greatly strengthening the joint. It must be remarked that the connector  $a$  is placed on the conductors in such a manner that the said end portions  $b^2$  and  $c^2$  of the wires  $b$  and  $c$  meet at about the central portion of the connector and of its slot  $f$  or  $f'$ , respectively. The beveled edges  $e e$  enter the insulation material  $b'$  and  $c'$ , as shown in Fig. 1, whereby the ends of the joint are closed substantially air and water tight. The joint is afterward completed by surrounding it with insulation material  $d$ , as shown in dotted lines in Fig. 1.

Heretofore when straight-sleeve connectors were used the joints produced were very seldom perfect and strong, as the air contained in the connector and around the conductors was not sufficiently expelled, and, furthermore, no provisions were made to strengthen the joint by soldering together or otherwise connecting the end portions of the wires to be jointed. The above objections are completely overcome by my present invention, and it may be well to remark that under test a joint made with my improved connector increases its conductivity from thirty to sixty per cent. and its strength about one hundred per cent., and yet the connector is very inexpensive and is easily applied. I may also remark that the shape of the slots  $f$  and  $f'$  may be altered and that said slots may be substituted by a square or circular hole so long as said slots or holes are arranged in that part of the connector where the ends of the wires to be jointed meet.

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

1. A sleeve or connector for electrical conductors, consisting of a tube or sleeve sub-



stantially circular in cross-section and having its end portions beveled, and provided with a longitudinal slit extending through the entire length of the sleeve or tube, and  
5 also provided with an enlarged opening or slot, substantially as and for the purposes described.

2. A joint or connector for electrical conductors, consisting of a tube or sleeve, substantially circular in cross-section and having its end portions beveled, and provided with a longitudinal slit extending through its entire length, and also provided at or near its central portion with a slot or opening for the  
10 reception of soldering material, substantially as and for the purposes described.

3. A joint or connector for electrical con-

ductors, consisting of a sleeve or tube substantially circular in cross-section and having its end portions beveled and provided  
20 with a longitudinal slit extending through its entire length, and also provided at or near its central portion with an elongated slot adjacent to and communicating with the longitudinal slit, substantially as shown and de- 25 scribed.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of March, 1900.

CHARLES H. MCINTIRE.

Witnesses:

ALFRED GARTNER,  
MARGARET BRITTON.