(No Model.)

T. J. BRAY.

TUBULAR POLE FOR ELECTRICAL RAILROADS.

No. 452,255. Patented May 12, 1891.

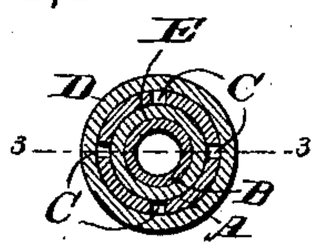

Fig. 2.

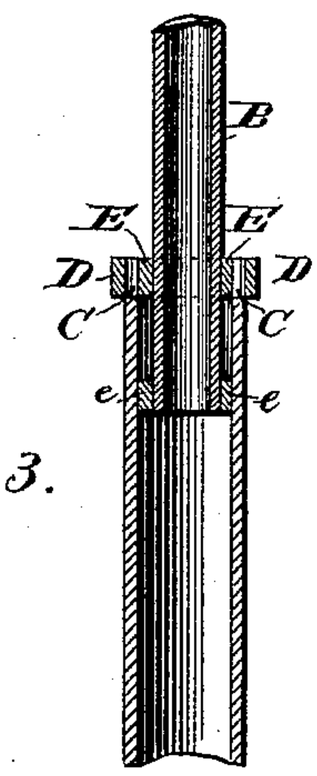

Fig. 3.

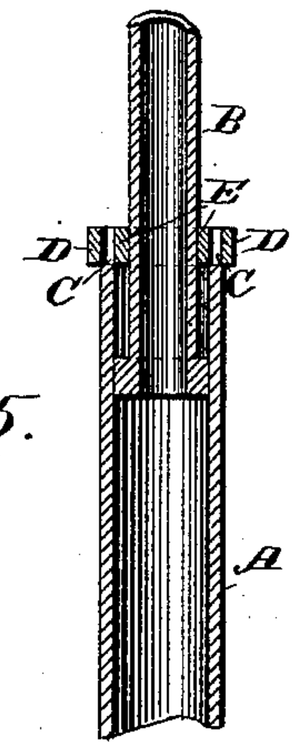

Fig. 5.

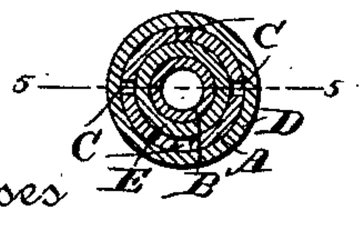

Fig. 4.

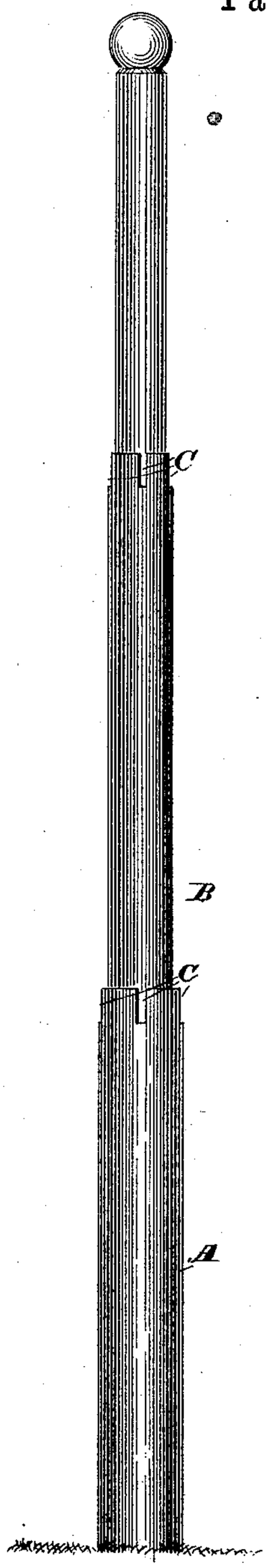

Fig. 1.

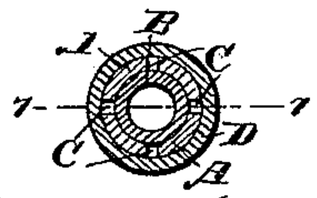

Fig. 6.

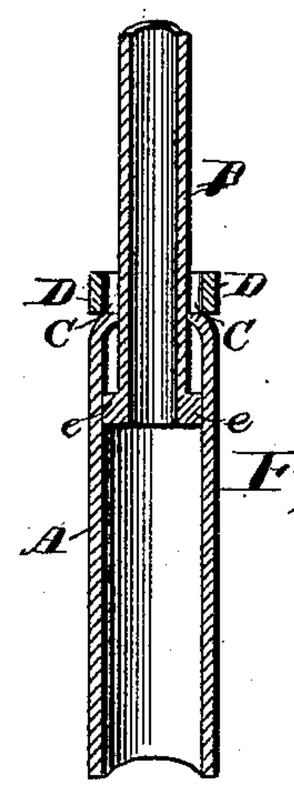

Fig. 7.

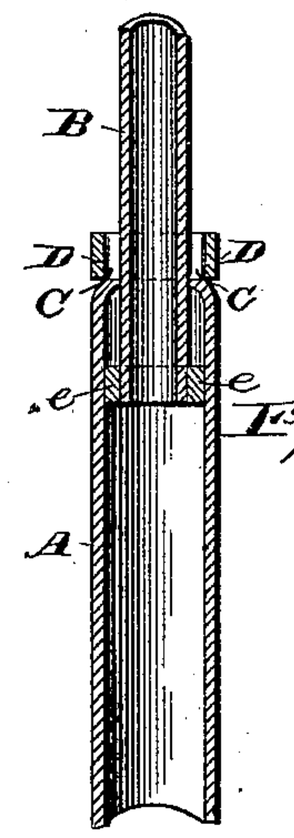

Fig. 9.

Fig. 8.

Witnesses

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UNITED STATES PATENT OFFICE.

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TUBULAR POLE FOR ELECTRICAL RAILROADS.

SPECIFICATION forming part of Letters Patent No. 452,255, dated May 12, 1891.

Application filed February 14, 1891. Serial No. 381,439. (No model.)

To all whom it may concern:

Be it known that I, THOMAS J. BRAY, of Warren, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Tubular Poles for Electrical Railroads, of which the following is a specification, reference being had to the accompanying drawings.

Heretofore such poles have been constructed by the use of several loose pieces, generally hooks, for securing one section of the tube to another.

The object of my invention is to provide a simpler and cheaper construction that will form a firmer connection between the sections and one more convenient and less liable to get out of order. Accordingly by my plan I dispense with all hooks, caps, and loose parts heretofore used in such devices and employ only integral or permanently-fixed parts in connection with the coupling or joining of sections together.

In the accompanying drawings, illustrating my invention, Figure 1 is an elevation of a telegraph-pole embodying my invention. Fig. 2 is a horizontal section through the top of the case A, as shown in Fig. 3. Fig. 3 is a vertical central section on the line 3 3 of Fig. 2. Fig. 4 is a horizontal section through the top of the casing A of Fig. 5. Fig. 5 is a vertical central section on the line 5 5 of Fig. 4. Fig. 6 is a horizontal section through the top of case A of Fig. 7. Fig. 7 is a vertical central section on the line 7 7 of Fig. 6. Fig. 8 is a horizontal section through the top of case A of Fig. 9, and Fig. 9 is a vertical central section on the line 9 9 of Fig. 8.

Referring to the letters on the drawings, A indicates a lower section, and B an upper and smaller section, of tubing, the two sections being adapted to be connected together by the upper one entering the lower one a short distance, as shown.

C indicates longitudinal slots or kerfs formed in the upper end of the larger section of pipe. There may be two or any desired number of these kerfs, which are formed for the purpose of permitting the end of the tube in which they are cut to be contracted by compression and to clamp the lower end of the smaller tube when inserted in place. When the inserted end of the smaller tube fits tightly, forcing it to place will expand the kerfed end of the larger tube, and the end of the smaller tube will be grasped tightly by the kerfed end of the larger tube. In this manner, without anything more, a very strong connection of the two sections can be formed when sufficient power is applied to force the smaller tube to place. If preferred, however, the larger tube may be re-enforced by applying a metal hoop or band around it after the smaller sections have been placed in proper position within the larger; but this is largely a matter of taste. This band can be forced on in the manner of a barrel-hoop or it may be heated and shrunk on in the manner of a wheel-tire, and it may be bolted or otherwise fastened to place in any usual manner. It is essential that the lower end of the upper section bear snugly against the interior of the lower section. This may be effected by providing a band *e* on the lower end of the upper section, either secured in place around the lower end of the upper section, as shown in Figs. 2 and 9, or else integral therewith, as shown in Figs. 5 and 7. In the latter case the upper section will have to be inserted to place from the lower end of the lower section. When the upper end of the lower section is made plain, as shown in Fig. 2, the upper section may be provided with a ring E, secured to place in any usual manner and adapted to fit snugly in the upper end of the lower section. When, however, the upper end of the lower section is reduced in diameter, as shown in Figs. 7 and 9, so as to fit the upper section snugly, no ring E will be necessary.

The formal variations exhibited in the different figures are merely shown for the purpose of illustrating some of the ways in which the substance of my invention may be embodied, and there are still others which I have not illustrated.

What I claim is—

1. In a tubular pipe composed of sections of different diameters, the larger section provided with longitudinal kerfs for clamping the smaller section when in place, substantially as set forth.

2. In a tubular pipe composed of sections of different diameters, the larger section provided with longitudinal kerfs for clamping the smaller section, and a clamp-ring for compressing the kerfed end of the larger section, substantially as set forth.

3. In a tubular pole composed of a larger and smaller section joined together, the combination of one section provided with longitudinal kerfs with the other section, two bearing-places for the smaller section within the larger section, and a clamping-ring for compressing the kerfed end of the larger section, substantially as set forth.

In testimony of all which I have hereunto subscribed my name.

THOMAS J. BRAY.

Witnesses:

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