52-296

No. 883,474. PATENTED MAR. 31, 1908.

R. S. ORR.

POLE.

APPLICATION FILED OCT. 11, 1907.

Fig. 1.

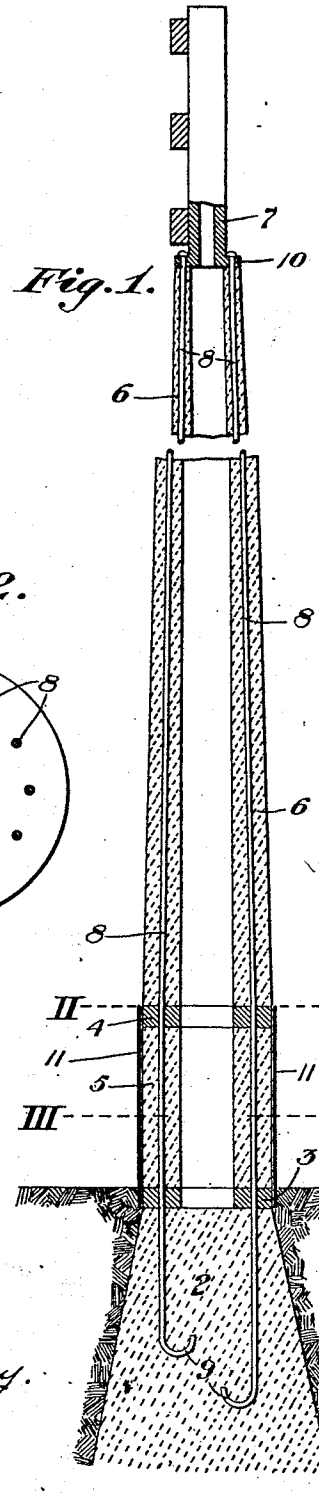


Fig. 4.

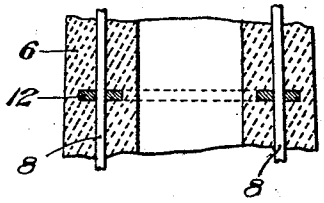


Fig. 2.

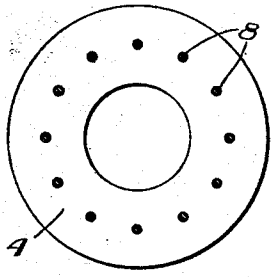
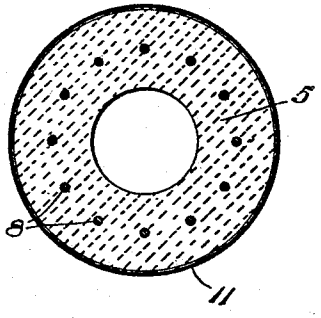


Fig. 3.



Witnesses:

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

UNITED STATES PATENT OFFICE.

ROBERT S. ORR, OF ALLEGHENY, PENNSYLVANIA.

POLE.

No. 883,474. Specification of Letters Patent. Patented March 31, 1908.

Application filed October 11, 1907. Serial No. 396,900.

To all whom it may concern:

Be it known that I, ROBERT S. ORR, a citizen of the United States, residing at Allegheny, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Poles, of which the following is a specification, reference being had therein to the accompanying drawing.

My invention refers to improvements in poles for electric lights or for other similar use and relates particularly to a construction employing a tubular main body portion of concrete, cement or other similar material mounted on a supporting base and provided with a terminal socket cap adapted to receive the lamp-supporting bracket or extension.

A feature of novelty and advantage in the device is that the hollow middle portion of the post is adapted to receive the conducting wires of the lamp and its shell is reinforced and strengthened by connecting tension members as rods or bolts, extending from the base upwardly through the walls of the main pole member to the top supporting cap, thereby securing great rigidity, lightness and efficiency.

In the drawings:—Figure 1 represents a vertical sectional view of the complete pole, partly broken away provided with a supported lamp bracket. Fig. 2 is a cross sectional view on the line 11.11. of Fig. 1. Fig. 3 is a similar section on the line 111. 111. of Fig. 1. Fig. 4. is a sectional detail view showing a holding ring.

2 is a base, preferably of concrete or masonry, set in the ground and provided with a metallic bearing ring 3 set on the top of the base and substantially flush with the ground level as shown. 4 is a similar metallic ring located some distance vertically above ring 3, and between said rings is a hollow concrete section 5, preferably cylindrical in form. Extending upwardly beyond ring 4 is a similar section 6 of concrete and also preferably circular in cross section and tapered towards its upper end. 7 is a terminal member set upon the upper end of section 6 and secured thereon by a series of strengthening tension members or metallic rods 8, and adapted to support and carry any attachments, as cross arms. Rods 8 are anchored in the concrete base 2 in any suitable way as indicated at 9, extending upwardly through ring 3, the wall of section 5, ring 4 and wall of section 6 and are connected with member 7 as by terminal heads or threaded ends engaging a flange 10 thereof, as clearly shown. Rings 3 and 4 may be dispensed with if desired, and the concrete pole carried continuously from the supporting base throughout its entire length. As thus constructed it will be seen that the entire pole section is formed of concrete, either with or without the supporting rings and having the connecting reinforcing tension members 8, whereby a strong rigid device is provided for the objects in view. By this construction the wall of the pole section is greatly strengthened and braced, the cement or concrete being maintained in its original position against fracture or movement due to the various strains, while the entire structure including the terminal member 7 and its supported attachments is rigidly connected and held as a permanent structure. For the purpose of further strengthening the base portion of the column and of protecting the section 5 of concrete, I may employ a surrounding plate 11 bolted or otherwise secured at its lower and upper ends to rings 3 and 4 and providing a strengthening supporting apron for such portion of the pole as would be exposed to injury by contact with vehicles or other objects.

In manufacturing the sections 5 and 6 of the pole they either with or without the rings 3 and 4, may be readily molded by a suitable mold and core, providing a tapering finished exterior and interior for the wall with the reinforcing rods or tension members 8 embedded therein. A particular advantage of rings 3 and 4 is that they help to strengthen and brace the base of the pole, ring 4 being also of advantage in providing for attachment of the upper end of apron 11. As thus made the various parts constituting the main pole section may be readily constructed and erected in place on the foundation base 2, upon which the pole is set with its anchoring extensions 9 in the process of forming the base, and when so erected will be found to provide a strong permanent pole well adapted to the object in view. The pole and base may also be made at the same time and ready for insertion in the ground.

The device is simple in construction and simple to manufacture, will withstand the action of the elements and may be made in various sizes and designs as to length and diameter of cross section within the province

of the designing engineer while various other changes or variations may be made by the skilled mechanic.

What I claim is:

1. A pole, the combination of a supporting base of concrete or the like, a hollow cylindrical tapering body portion of concrete provided with a metallic base ring, an upper terminal element set on the top of the pole, and metallic tension members connected with said terminal element, passing through the concrete wall and base of the pole, and having holding ends anchored in the base, substantially as set forth.

2. In a pole, the combination of a supporting base of concrete, a hollow cylindrical tapering body portion of concrete provided with a terminal base ring set on said base and a supplemental strengthening ring transversely arranged across the body portion of the pole somewhat above said base ring, an upper terminal member, and metallic tension members connected with said terminal, passing through the body portion of the wall of the pole and through the supplemental and base rings respectively and having anchoring terminals embedded in the supporting base, substantially as set forth.

3. A pole comprising a base of concrete, an oppositely located terminal, a hollow body portion of concrete provided with a terminal base ring and a supplemental upper strengthening ring, tension members connected with the terminal, passing through the body portion of the shell of the pole and through said rings and anchored in the concrete base, and a surrounding protecting apron inclosing the base portion of the pole between said rings, substantially as set forth.

4. The combination with a supporting base, of a ring set thereon, a hollow cylindrical section of concrete set on said ring, an upper hollow cylindrical tapering section with an intervening strengthening ring, a terminal element, and tension members connected with said element extending downwardly through the wall of the hollow concrete sections and rings and anchored in the supporting base, substantially as set forth.

5. The combination with a supporting base, of a ring set thereon, a hollow cylindrical section of concrete set on said ring, an upper hollow cylindrical tapering section with an intervening strengthening ring, a terminal element, tension members connected with said element extending downwardly through the wall of the hollow concrete sections and rings and anchored in the foundation base, and a surrounding sheet metal apron embracing the lower section of concrete and said rings, substantially as set forth.

6. As an article of manufacture, a hollow pole consisting of a tubular body of concrete provided with a terminal supporting ring at one end and a terminal element at the other end, and reinforcing rods connected with said element extending through the wall of the pole and through and beyond the supporting ring, substantially as set forth.

7. As an article of manufacture, a hollow pole consisting of a tubular body of concrete provided with a terminal supporting ring at one end and a terminal element at the other end, an intervening transverse strengthening ring, and reinforcing rods connected with said element extending through the wall of the pole and said rings and beyond the end ring and having anchoring terminals adapted for engagement in a supporting base, substantially as set forth.

8. In a pole, the combination of a supporting base, a ring set thereon, a straight cylindrical hollow section of concrete set on said ring, an upper ring set on said section, a protecting apron inclosing said section and rings and secured thereto, an upper cylindrical hollow tapering pole section provided with a terminal member, and strengthening rods secured to said terminal member extending downwardly through both of said wall sections and said rings and having anchoring terminals embedded in the base, substantially as set forth.

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

ROBERT S. ORR.

Witnesses:

C. M. CLARKE,

CHAS. S. LEPLEY.