No. 724,909. PATENTED APR. 7, 1903.

W. MAXWELL.

METALLIC POLE.

APPLICATION FILED DEC. 8, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

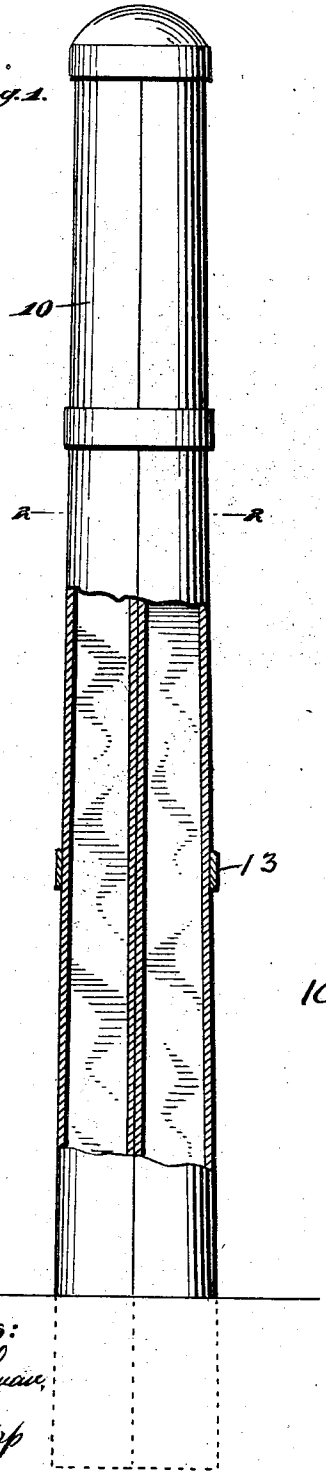


Fig. 2.

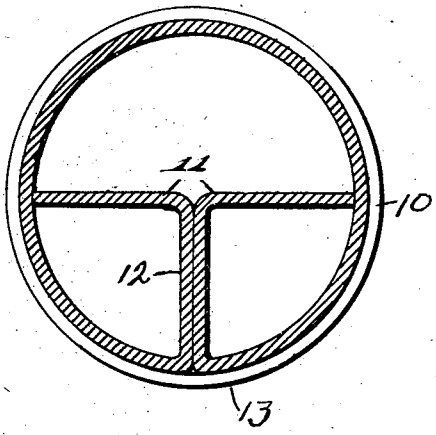
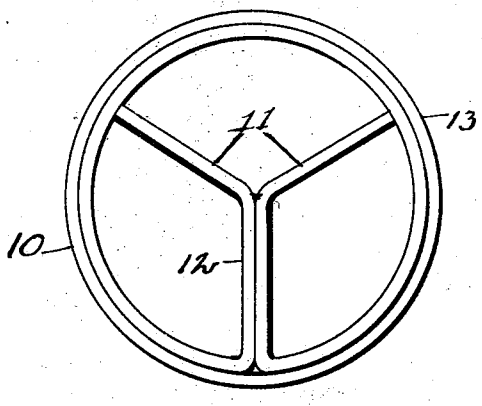


Fig. 3.



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Fig. 5.

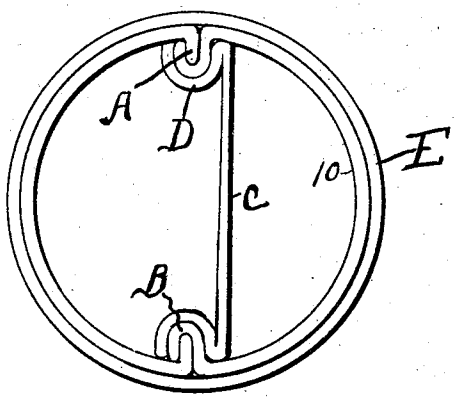


Fig. 6.

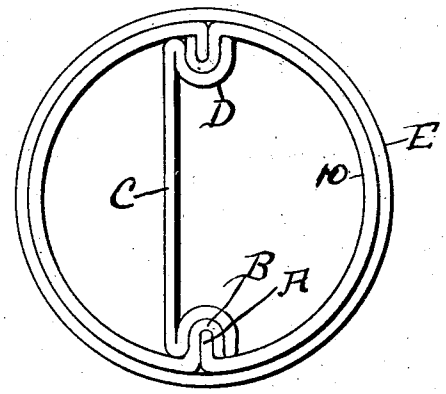


Fig. 7.

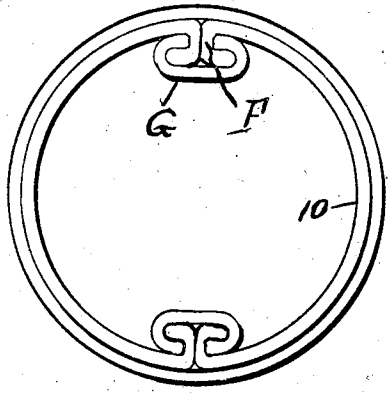


Fig. 8.

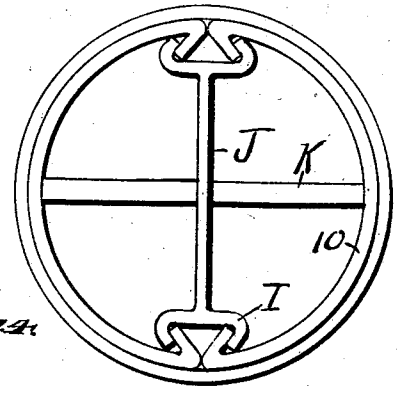
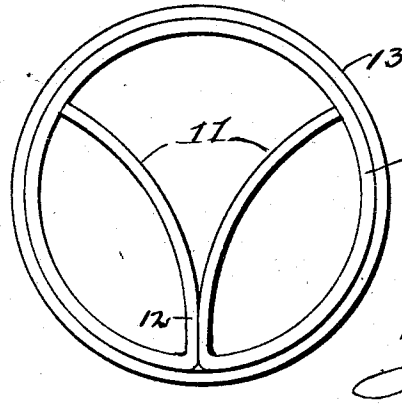


Fig. 4.



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UNITED STATES PATENT OFFICE.

WILLIAM MAXWELL, OF PITTSBURG, PENNSYLVANIA.

METALLIC POLE.

SPECIFICATION forming part of Letters Patent No. 724,909, dated April 7, 1903.

Application filed December 8, 1902. Serial No. 134,336. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MAXWELL, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Metallic Poles, of which the following is a specification.

This invention relates to poles, and it is designed particularly for use as a telephone, telegraph, trolley, or electric-light pole, to be broadly known as a "metallic" pole.

The object of the invention is to produce a metallic pole comprising a shell-like casing and in combination therewith novel means for retaining the portions of the casing in fixed relation to one another.

Furthermore, the object of the invention is to provide novel means for retaining the joints of the sections in locked engagement and for internally bracing the casing against collapse or from damage through pressure or strain externally applied.

Furthermore, the object of the invention is to produce a combined casing and internal brace formed of a single piece shaped and arranged to withstand the pressure of binding-bands.

Furthermore, the object of the invention is to produce a pole which will possess unusual strength and durability compared with the amount of material employed in its construction, proving at the same time efficient and satisfactory in use and comparatively inexpensive.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, and in which—

Figure 1 is a view in elevation, partly in section, showing a metallic pole embodying the invention. Fig. 2 is a horizontal sectional view thereof on the line 2 2 of Fig. 1. Figs. 3 and 4 are horizontal sectional views of a metallic pole, showing a slightly modified arrangement of the braces. Figs. 5, 6, 7, and 8 are horizontal sectional views of metallic poles, illustrating modifications in the way of joints and braces.

In the drawings, 10 indicates a metallic pole in which the casing and the braces 11 comprise a single sheet of metal bent to form the circular shell or casing, with the sides of the sheet bent in and lying parallel and contiguous for a considerable distance, as shown at 12, preferably to a point centrally of the casing, the said sides being then bent at right angles to the parallel portions and terminating in contact with the inner surface of the circular portion of the pole. It will be observed that with the engagement of the parallel portions of the brace and with the edges thereof engaging the inner surface of the casing at diametrically opposite points the joint will withstand unusual strain.

In the modifications shown in Figs. 3 and 4 the edges engage the inner surface of the casing beyond the center of the pole, so that the sustaining power of the braces is somewhat greater than that of the form shown in Fig. 2 and they have the advantage also of strengthening the casing at points approximately equidistant in its circumference. The retaining bands or rings 13 are shrunk on the outer surface of the casing, or they may be forced into place and retained through frictional engagement.

In Figs. 5 and 6 the casings are formed of semicircular sections with flanges A and overlapping seams B, which may be provided, as shown in Fig. 5, where one section has two flanges and the other section has overlapping edges, or, as shown in Fig. 6, where one section has a flange and an overlapping edge, which engage the overlapping edge and the flange, respectively, of the opposite section. In either form internal braces C are provided in which their ends are bent back and curved to form sockets D or seats to receive the seams of the sections, as just described. In this form the braces C are applied to the seams and driven down until they frictionally engage against displacement. The retaining-bands E, similar to those described in connection with Figs. 2, 3, and 4, are employed in this form and are preferably applied to the casing at points opposite the

braces, so that the pressure of the bands and braces coact to retain both in firm engagement.

In the form shown in Fig. 7 the edges of the sections are bent to lie parallel, as shown at F, then bent at right angles to the parallel portions. Clips G are applied to the flanged edges and driven down to retain the sections in position. Retaining-bands are employed in this connection, as in those heretofore described.

In the form shown in Fig. 8 the flanges are not oppositely disposed, as in the form shown in Fig. 7, but diverge to form spring members and which are drawn together by the action of the clamps I, the said clamps being connected by a bar J and forming a brace to prevent collapse of the casing. In this form I also provide a bar K at right angles to the bar J, which is designed to bear against the inner surface of the casing to prevent collapse of the casing. By the use of such bars, which may be termed "spiders," the interior of the casing is braced, and hence said casing may be made of very light material. The number of arms may be multiplied, as will be apparent, to form braces at other points; but the illustration serves as an example of the principle.

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

1. In a metallic pole, a casing formed in sections with inturned edges and a cross-bar carrying engaging members for the inturned edges.

2. In a metallic pole, a casing comprising sections having inturned edges forming seams and combined braces and clips for engaging the inturned edges.

In testimony whereof I affix my signature, in the presence of two witnesses, this 4th day of December, 1902.

WILLIAM MAXWELL.

Witnesses:
WM. S. HARRIS,
LOUIS P. SCHAEFER.