

No. 717,276.

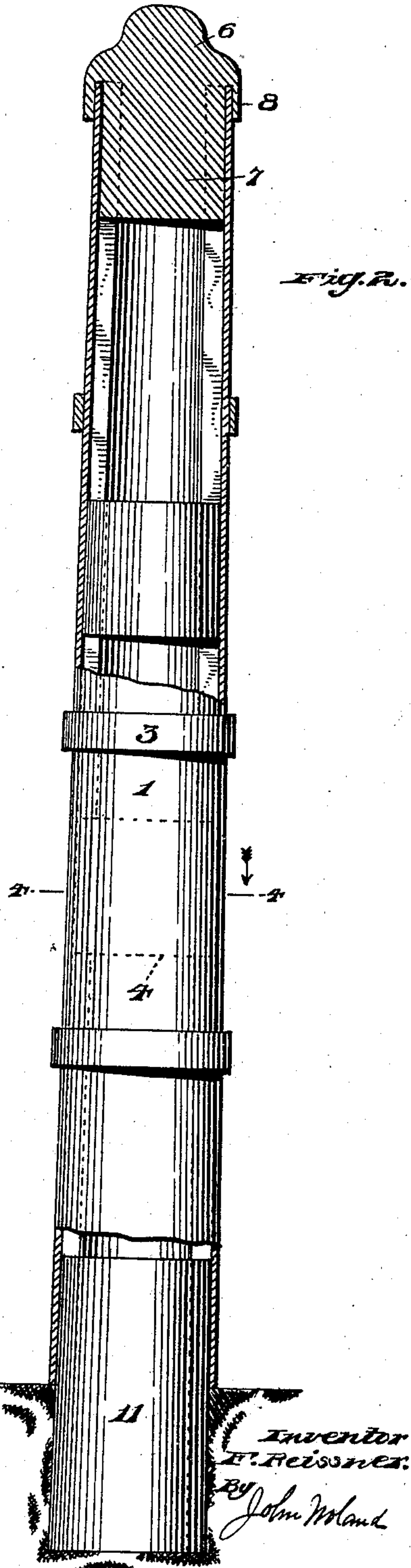
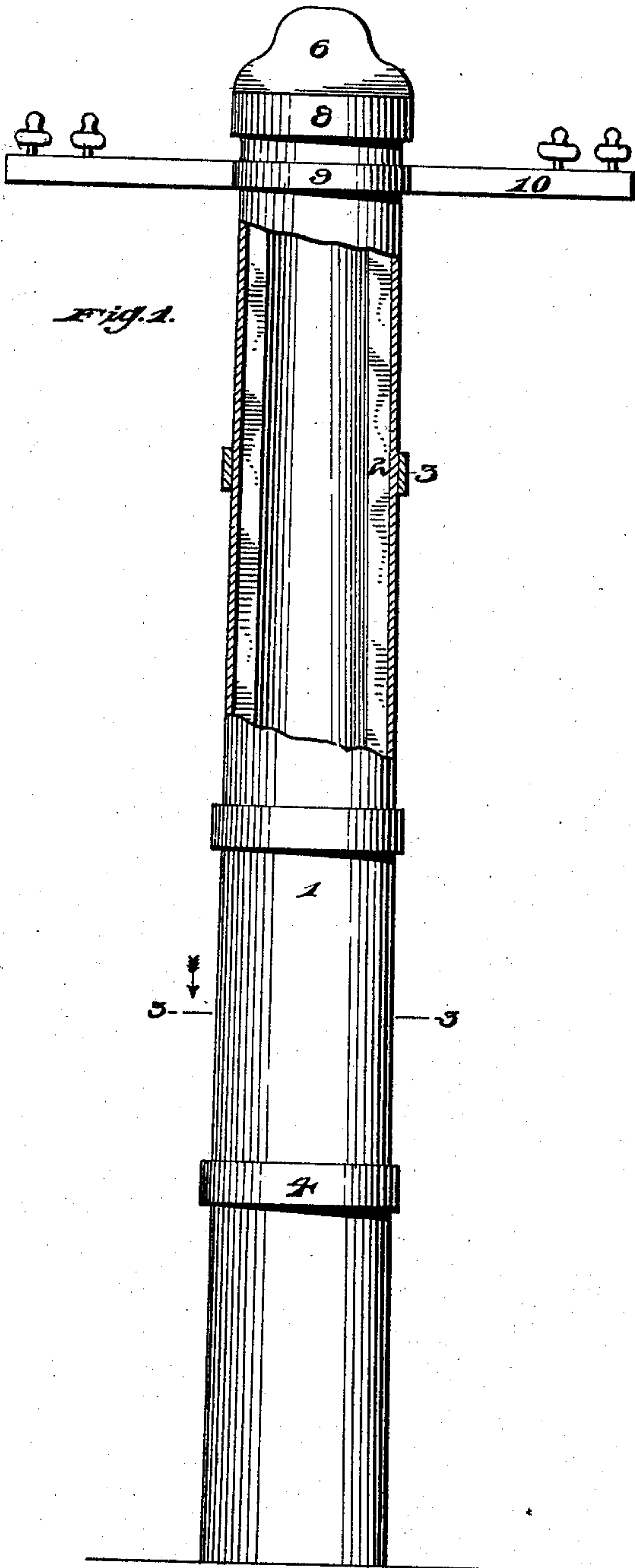
Patented Dec. 30, 1902.

F. REISSNER.
METALLIC POLE.

(Application filed Sept. 19, 1902.)

(No Model.)

2 Sheets—Sheet 1.



Witnesses:

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2 Sheets—Sheet 2.

Fig. 3.

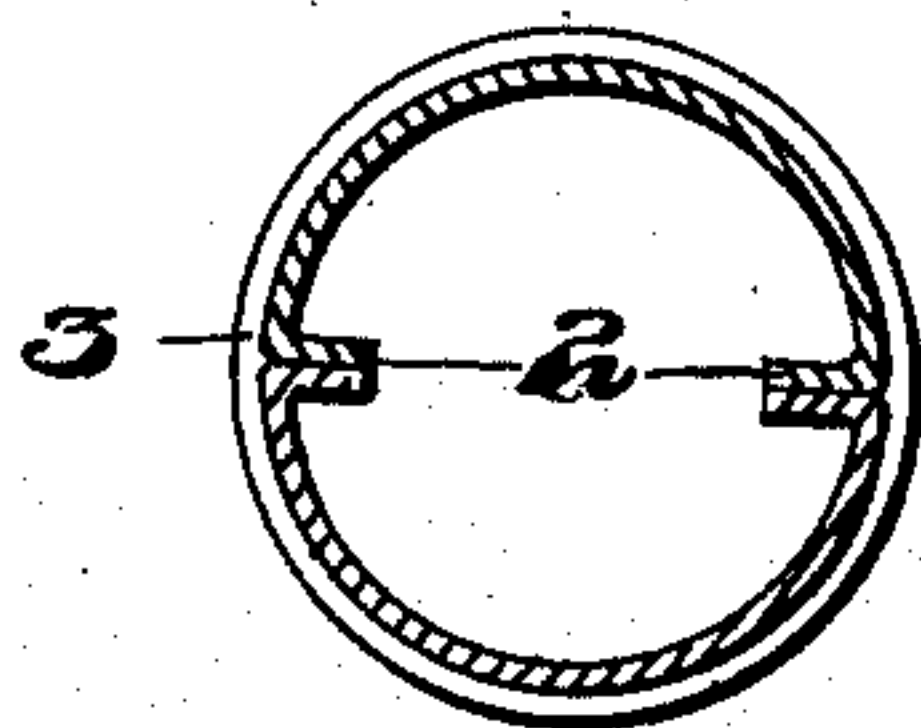


Fig. 1.



Fig. 4.

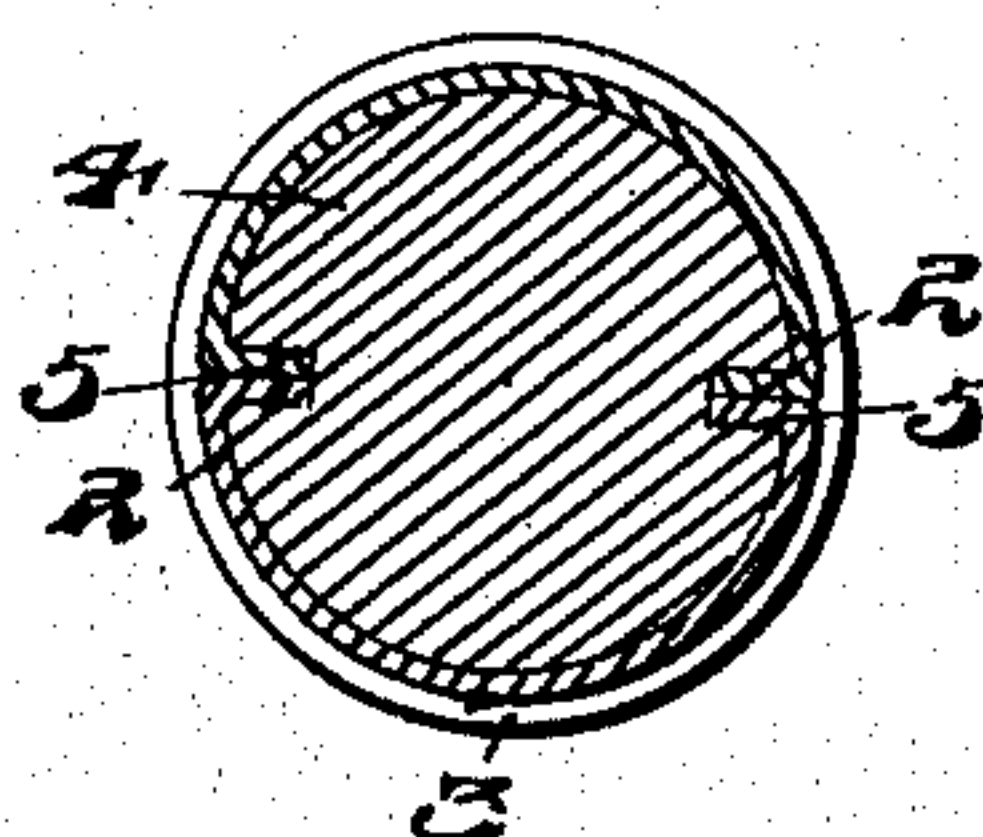


Fig. 8.

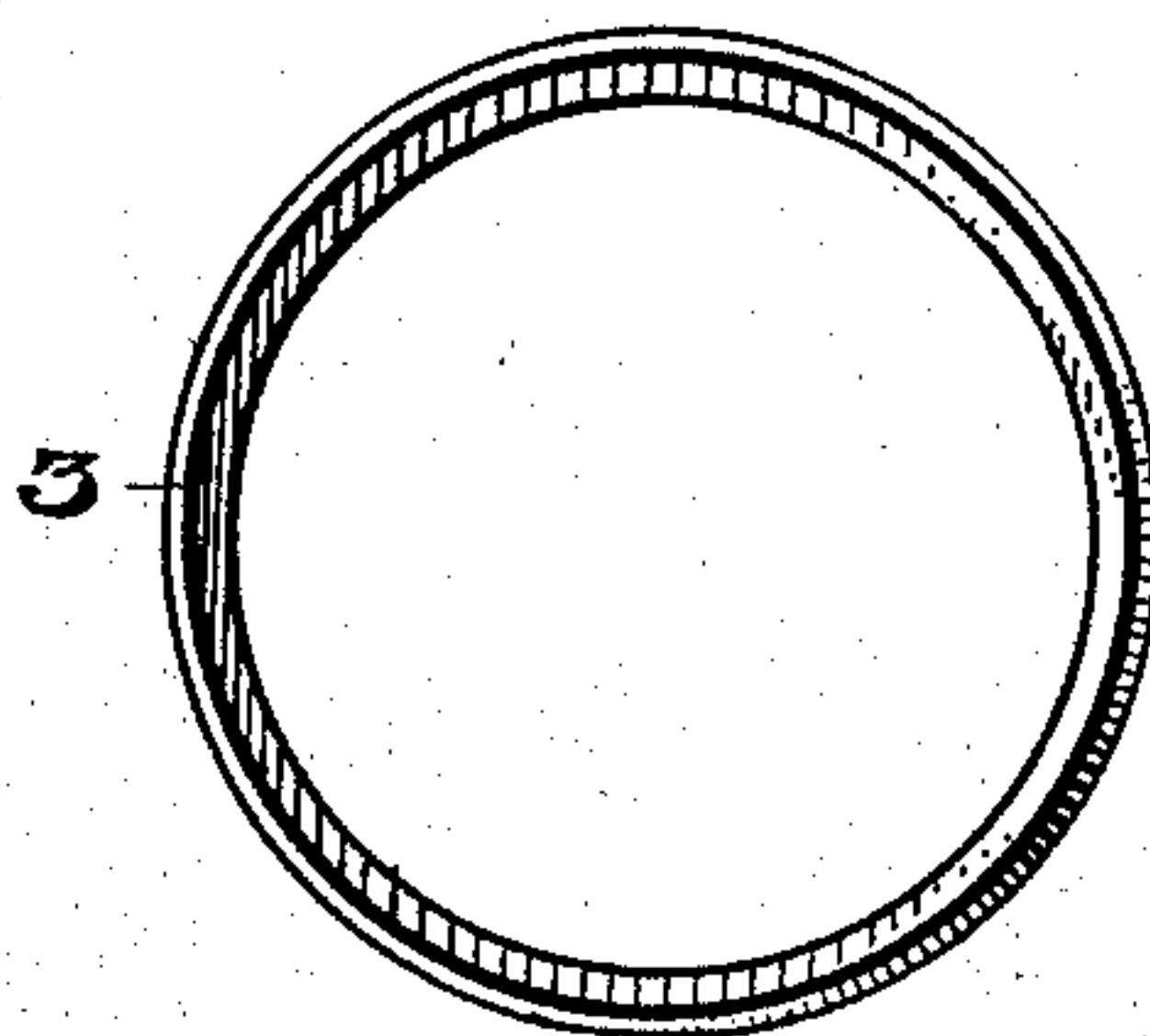


Fig. 5.

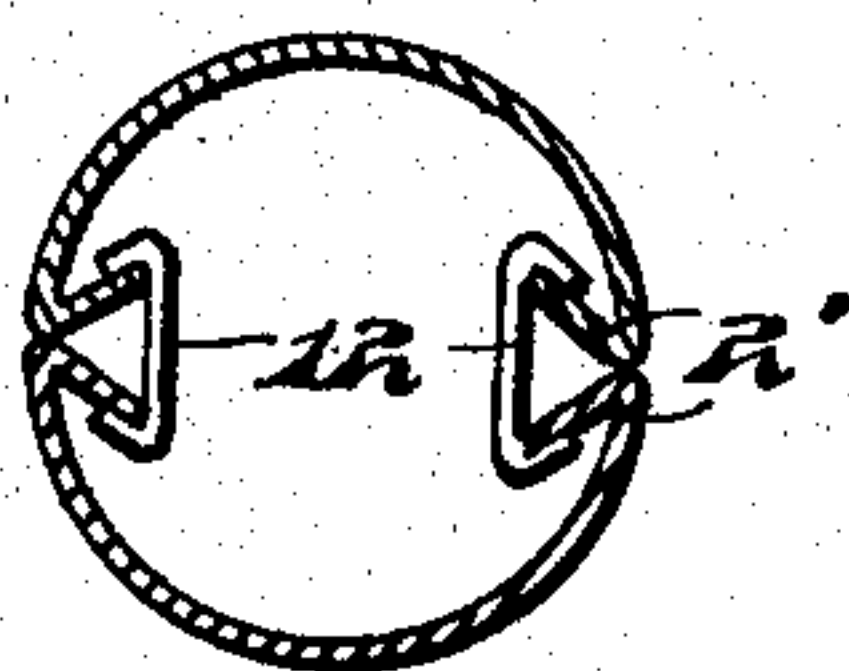


Fig. 9.

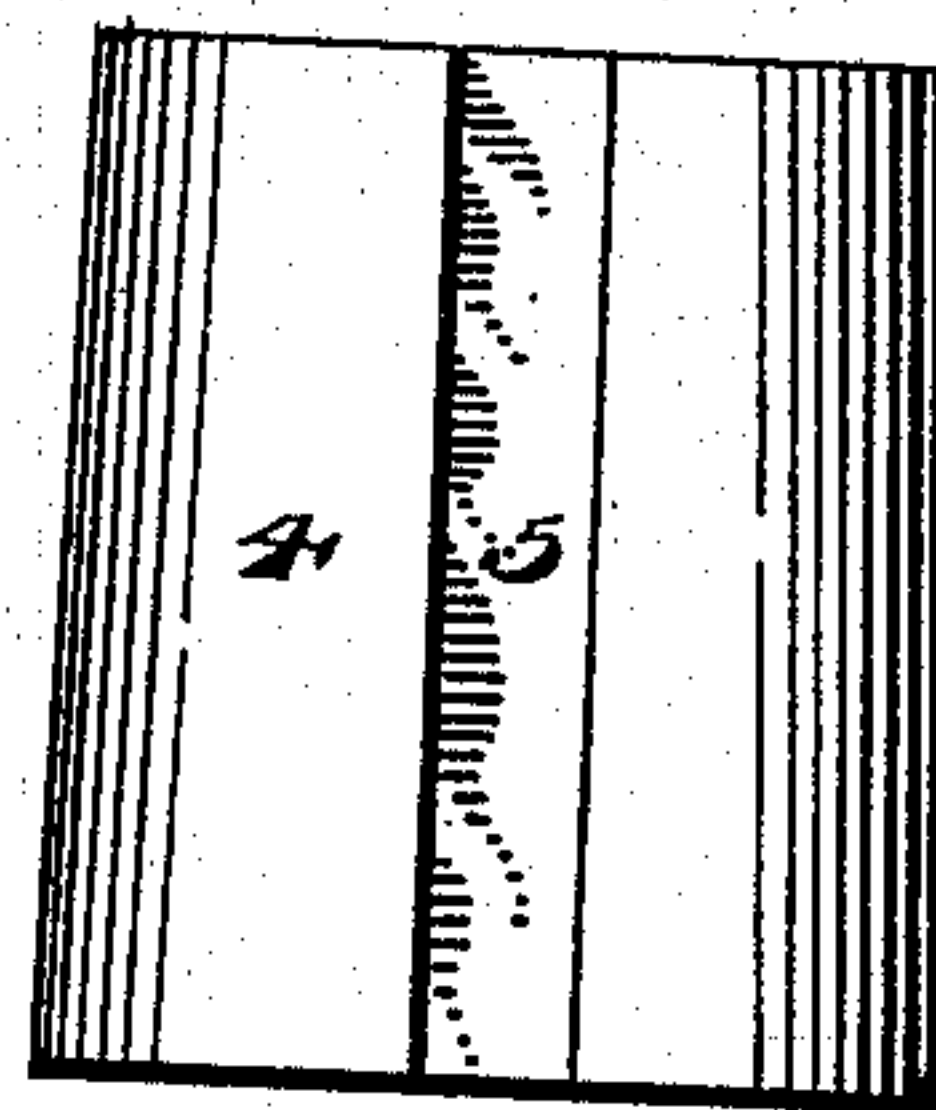


Fig. 6.

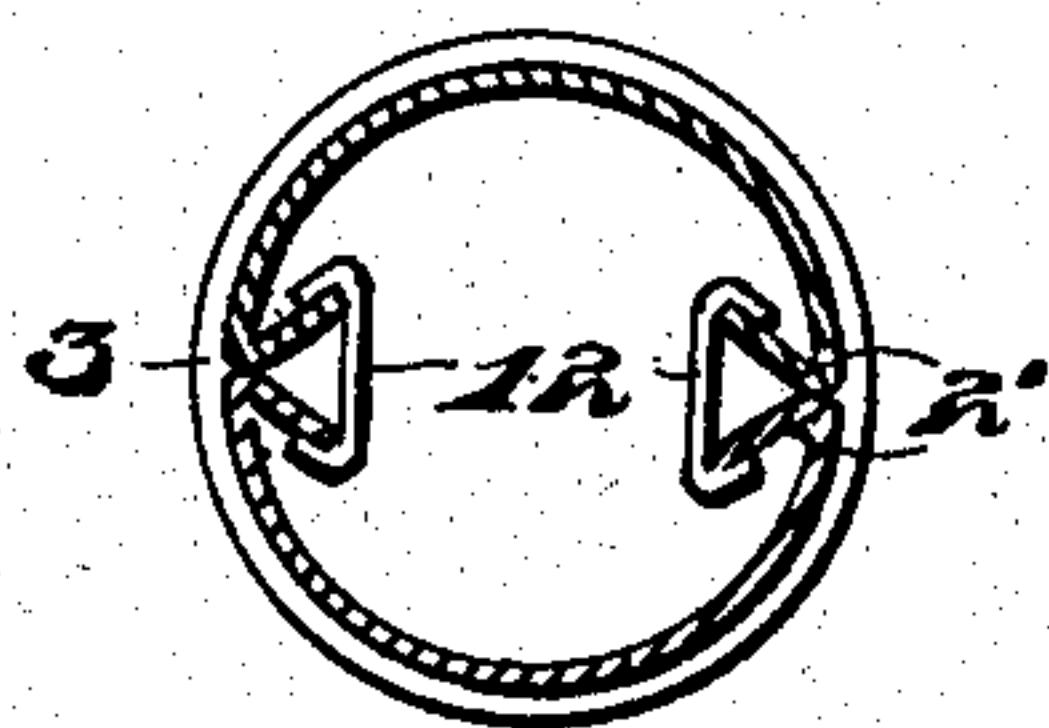


Fig. 10.

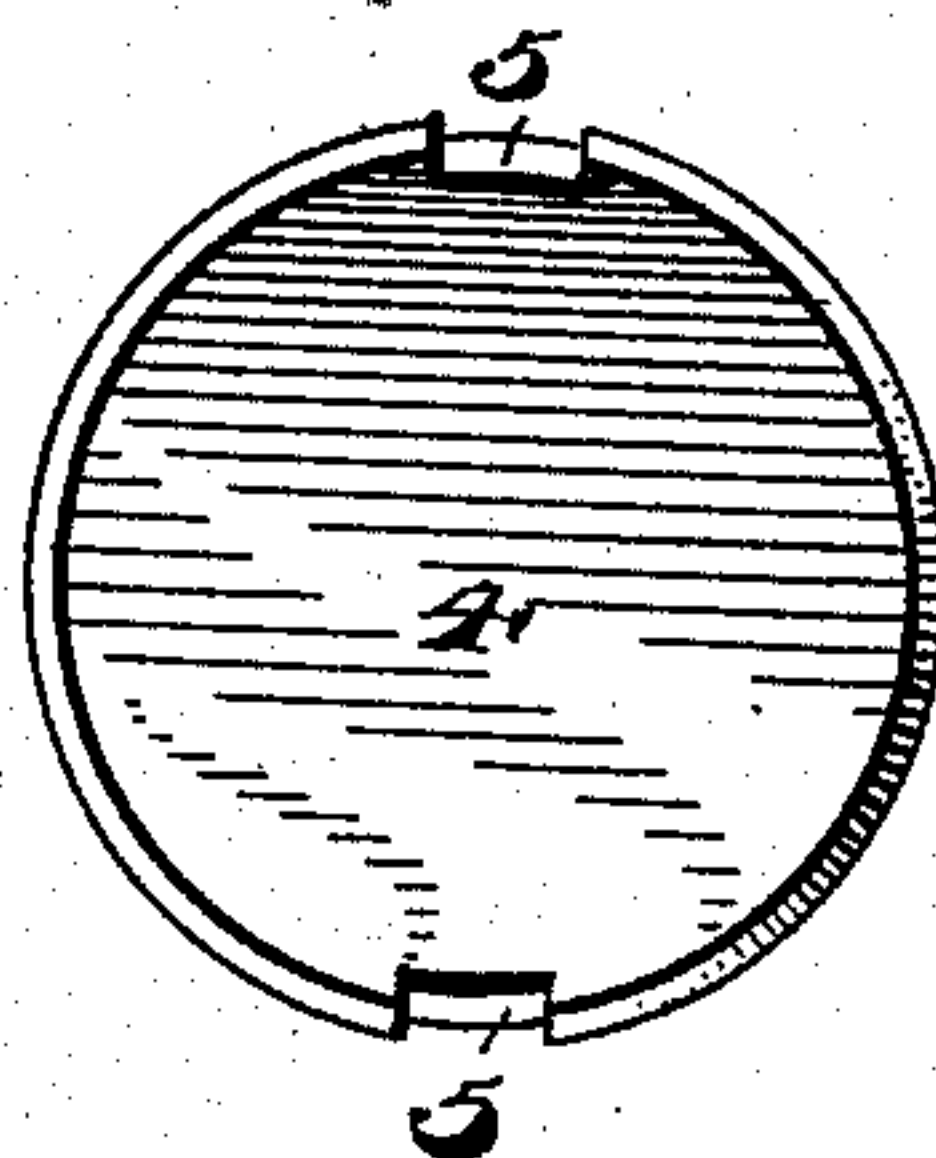


Fig. 11.



Fig. 12.

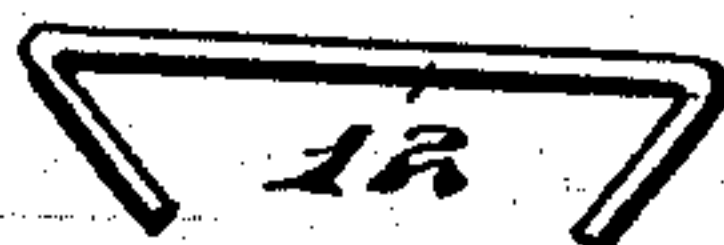
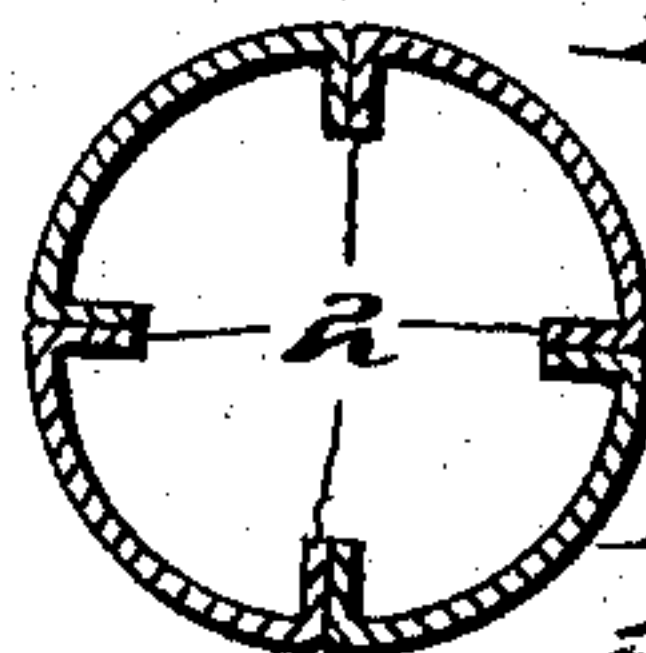


Fig. 13.



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UNITED STATES PATENT OFFICE.

FREDERICK REISSNER, OF ALLEGHENY, PENNSYLVANIA, ASSIGNOR OF
ONE-HALF TO JOSEPH H. BOYD, OF ALLEGHENY, PENNSYLVANIA.

METALLIC POLE.

SPECIFICATION forming part of Letters Patent No. 717,276, dated December 30, 1902.

Application filed September 19, 1902. Serial No. 124,066. (No model.)

To all whom it may concern:

Be it known that I, FREDERICK REISSNER, a citizen of the United States of America, residing at Allegheny, 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.

My invention relates to an improvement in the construction of metallic poles for electric railways, telegraph systems, lamp-posts, and all other arts in which a metallic pole might be used.

The object of my invention is to provide a separable metallic pole which may be used either as a solid or as a hollow or as a semi-hollow pole and one in which the several parts may be made independently of each other, transported to the place where the pole is to be erected, and there assembled to suit the fancy of those erecting the pole.

Another object lies in providing a hollow or semihollow metallic pole which may be made up in several forms and one which will be much lighter and as strong, if not stronger, than the present integral metallic poles.

Still another object resides in so constructing the pole that it may be readily assembled and disassembled.

Finally, the object of my invention is to provide a metallic pole which will be strong, durable, and attractive in appearance and one which will be simple and inexpensive to produce and one in which the several parts will not be liable to get out of working order.

Furthermore, the invention consists in the novel details of construction, a preferable embodiment of which is illustrated in the drawings and described in the specification and then sought to be particularly pointed out in the claims.

Figure 1 is an elevation view of my invention as applied to a trolley-pole, showing the pole broken away to illustrate the interior construction of the pole. Fig. 2 is an elevation view of a pole constructed in accordance with my invention and broken away in portions to show the interior construction thereof. Fig. 3 is a transverse sectional view taken on the line 3 3 of Fig. 1. Fig. 4 is a similar view taken on the line 4 4 of Fig. 2. Fig. 5

is a transverse sectional view of a modification. Fig. 6 is a similar view showing a retaining-band applied to the outside of the pole. Fig. 7 is a side elevation view of the retaining-band. Fig. 8 is a bottom plan view of the retaining-band. Fig. 9 is a side elevation view of one of the plugs used in constructing the pole. Fig. 10 is a top plan view of the same. Fig. 11 is a side elevation of one of the cleats for holding the sections of the pole together. Fig. 12 is a top plan view of the same, and Fig. 13 is a transverse sectional view of a modified form.

In the drawings the numeral 1 designates the casing of the pole, which is preferably made in two semicircular sections, although it may be made in several sections, as will be hereinafter set forth. The pole may be formed of any metal suitable for the purpose for which the pole is designed. The semicircular sections 1 are made tapering from bottom to top and formed with inturned flanges 2, as shown in Fig. 3, running the entire length thereof and forming a butt-seam. Tapering retaining-bands 3 are slipped over the upper or small end of the pole and are shoved down the pole until they bind against the exterior surface of the casing, thus wedging the sections together. The bands are held in place by frictional contact with the casing, or, if desired, they may be secured to the casing in any suitable manner. These bands are made with different diameters, so as to cause them when applied to occupy different relative positions on the pole. As a further tying and strengthening means a tapering metallic plug 4 or a series of them may be inserted into the center of the pole. The plugs 4 may be placed at intervals along the bore of the pole, or one may be superposed above the other the entire length of the pole, thus forming a semisolid or a solid pole. These plugs may be inserted in the sections before the pole is assembled or after it has been put together by introducing them at the bottom or large end of the pole and shoving them up into the pole until they bind against the inner walls thereof, at which point they may be held by any suitable means. The plugs are provided with grooves 5, which are adapted to receive the inturned flanges 2 of the casing and to be

guided thereby up to their binding-points. The grooves 5 may be formed to fit the sides of the flanges 2 snugly, as shown in Fig. 4, or they may be made wide, as shown in Fig. 9, to receive the ends of the flanges 2 when it is desired to spread the latter, as shown in Fig. 5. Of course it is to be understood that the pole may be used without the metallic plugs 4. Such a pole is illustrated in Fig. 1. A tapering collar 9, provided with integral wire-supporting arms 10, is wedged on the upper end of the pole just below the cap 6. The cap 6 is formed with an integral body portion 7, fitting snugly in the hollow end of the pole, and is provided with an annular flange 8, embracing the exterior of the casing, and thus holding the cap in place and preventing the sections from spreading.

The pole may be provided with a tapering base-plug 11, as shown in Fig. 2, which is wedged into the lower portion of the casing, leaving a portion of its length protruding therefrom. When the base-plug 11 is used, it is not necessary to carry the casing below the ground, as the projecting portion of the base-plug will afford a sufficient hole for the pole to retain the latter in an upright position.

In Figs. 5, 6, 11, and 12 I have illustrated a modified form of my invention. In this form the flanges 2' are spread so as to flare toward their outer ends. I provide cleats 12 for fastening the ends of the flanges 2' and holding the sections of the casing together. These cleats are preferably made in the shape shown in Figs. 11 and 12; but I do not wish to limit myself to the exact shape shown, and I may make various changes in the same. The cleats 12, like the retaining-bands 3, are made of different diameters and are slipped on the flanges and pushed along the same until they bind, at which point they may be held by any suitable means. In conjunction with the cleats 12 I may use plugs 4, as shown in Figs. 9 and 10, which are provided with grooves 5, wide enough to receive the flanges 2'. The retaining-bands 3 may also be advantageously employed in the modified forms.

Fig. 13 illustrates still another form in which my metallic separable pole may be constructed. In this modification I have divided the casing into four sections, which may be fastened in any of the various ways herein-before described.

From the foregoing the assembling and dis-assembling of the several parts of the pole will be self-evident. Therefore a further description of the same is considered unnecessary.

My metallic separable pole may be constructed in several forms within the scope of

my claims, and I do not wish to limit myself to the exact details of construction and operation herein set forth, and I may make various changes without departing from the spirit of my invention.

Having thus fully described my invention, what I desire to secure by Letters Patent is—

1. In a metallic pole, a separable casing formed in sections, inturned flanges formed on the sections, bands for holding the sections together, and internal means for clamping the flanges together; substantially as described.

2. In a metallic pole, a separable casing formed in sections, inturned flanges formed on the sections, plugs secured in the casing adjacent the flanges, and exterior means for holding the sections together; substantially as described.

3. In a metallic pole, a separable casing formed in sections, inturned flanges formed on the sections, plugs secured in the casing adjacent the flanges, one of said plugs protruding from the lower end of the casing, and external means for holding the sections together, substantially as described.

4. In a metallic pole, a separable casing formed in sections, inturned flanges formed on the sections, plugs secured in the casing and provided with grooves adapted to receive the flanges, a plug protruding from the lower end of the casing, and external means for holding the sections together, substantially as described.

5. In a metallic pole, a separable casing formed in sections, inturned flanges formed on said sections, plugs secured in the casing and adapted to receive the flanges, and cleats straddling the ends of the flanges to hold the sections together; substantially as described.

6. In a metallic pole, a separable casing formed in sections, inturned flanges formed on said sections, cleats straddling the ends of the flanges, and bands fitted on the casing for holding the sections together; substantially as described.

7. In a metallic pole, a separable casing formed in sections, inturned flanges formed on said sections, cleats straddling the ends of the flanges, plugs secured in the casing and having grooves adapted to receive the flanges and bands fitted on the casing for holding the sections together; substantially as described.

In testimony whereof I affix my signature, in the presence of two witnesses, this 17th day of September, 1902.

FREDERICK REISSNER.

Witnesses:

J. P. APPLEMAN,
M. B. SCHLEY.