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METAL POLE WITH REINFORCING PIPES

Filed July 5, 1928

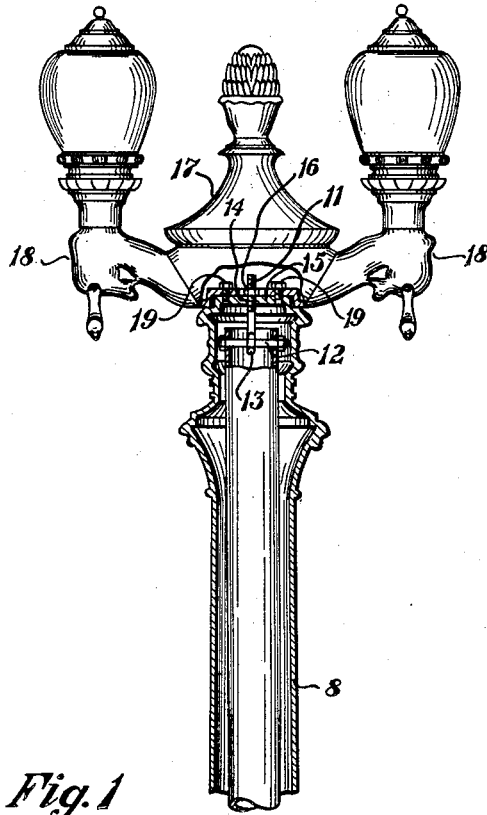


Fig. 1

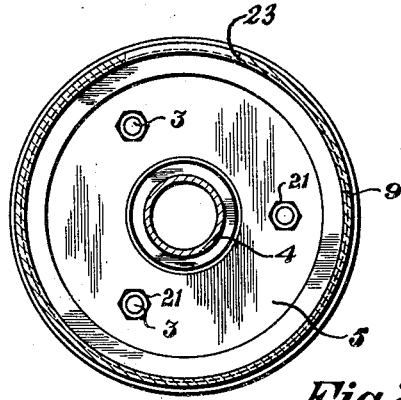


Fig. 2

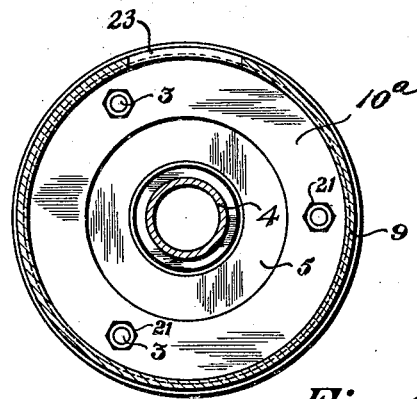


Fig. 4

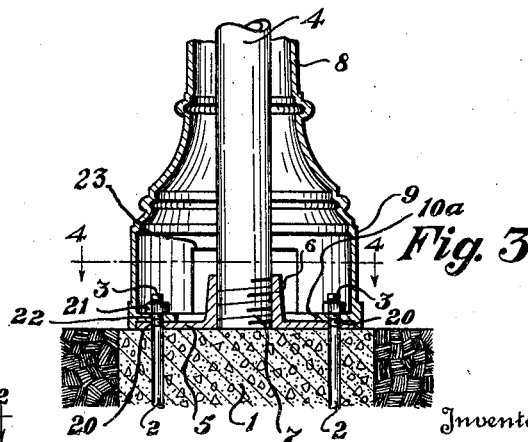
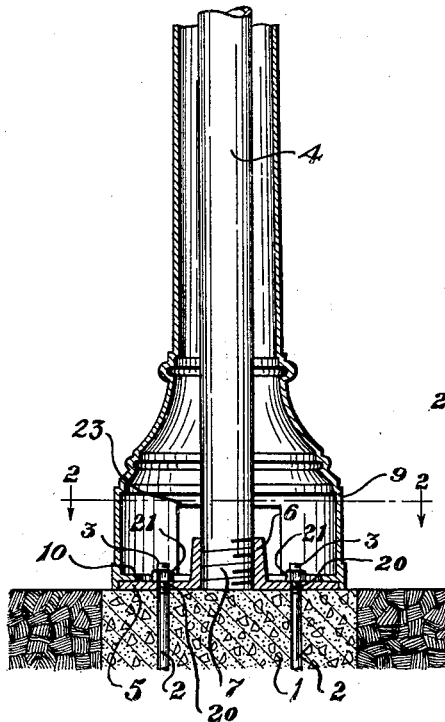


Fig. 3

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METAL POLE WITH REENFORCING PIPES

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The invention relates to tubular metal poles and more particularly to poles of this general character which are provided with an internal reenforcing pipe.

5 Poles of this character are usually installed by first erecting the reenforcing pipe in a concrete foundation, after which the tubular pole, which may be in the form of a cast iron shell, is hoisted up and telescoped over the
10 pipe, being lowered into position around the same and attached to the foundation and reenforcing pipe by any suitable and well known means.

15 This practice is very expensive, requiring special rigging for hoisting the tubular shell and lowering it over the reenforcing pipe. Furthermore, it has been found by experience that this method of installing these poles involves considerable danger to the workmen
20 as it frequently happens that high tension wires or cables are located above the point where the pole is erected.

25 This has resulted in a number of serious accidents in which workmen have been killed by accidentally bringing the shell into contact with these high tension wires and the like when the same is hoisted.

30 The object of the present improvement is to provide a tubular pole with pipe reenforcing which obviates these objections and difficulties in erection, the tubular shell and reenforcing pipe being telescoped and connected together before they are connected to the concrete foundation.

35 The above and other objects may be attained by providing a flange of steel or the like on the lower portion of the reenforcing pipe and connecting the same thereto as by
40 screw threads, casting, welding or the like, and by connecting the upper end of the pipe to the upper portion of the tubular shell by means of a bolt or the like, seating the lower or base portion of the tubular shell upon the
45 flange.

The pipe and tubular shell may then be erected as a unit and the flange may be bolted or otherwise connected to the concrete foundation.

50 An embodiment of the invention thus set

forth in general terms is illustrated in the accompanying drawing, in which

Figure 1 is a vertical sectional view of the improved pole;

Fig. 2, an enlarged transverse section taken
55 substantially on the line 2—2, Fig. 1;

Fig. 3, a vertical sectional view of the base portion of a modified form of the pole; and

Fig. 4, an enlarged transverse section on
60 the line 4—4, Fig. 3.

Similar numerals refer to similar parts throughout the drawing.

A concrete foundation of any usual and well known construction is indicated generally at 1, having the anchor bolts 2 im-
65 bedded therein with the threaded extremities 3 thereof protruding above the top of the foundation.

The reenforcing pipe 4 may be of any usual construction and in order to carry out
70 the present invention, a flange 5 is fixed to the lower end thereof. This flange may be connected by any suitable means such as welding, casting or the like and for the purpose of illustration is shown as provided
75 with an internally screw threaded collar 6 screwed upon the threaded lower extremity 7 of the pipe.

The tubular shell 8 may be of cast iron or the like and preferably has the base portion
80 9 formed integral therewith. This base may be provided with the internal annular flange 10 or 10a spaced from its lower end and adapted to rest upon the upper surface of
85 the flange 5.

An eyebolt 11 may be connected to the upper end of the reenforcing pipe as by the pin or bolt 12 located through the eye 13 thereof. The upper screw threaded end of the eyebolt may be extended through an
90 aperture 14 in the top wall 15 of the tubular shell 8, a nut 16 being mounted thereon to connect the shell and pipe together at their upper ends and to draw the internal
95 flange 10 of the shell into close contact with the flange 5 of the pipe.

A capital 17 of any desired form provided with lighting fixtures as indicated generally at 18 may be attached to the upper end of
100

the shell, after the same has been erected, as by the screws 19 or the like.

When the shell and pipe have been connected together as above described, they are
5 then placed in position upon the foundation, the upper ends of the anchor bolts 2 extending through suitable apertures 20 in the flange 5 and nuts 21 are screwed down upon the threaded extremities of the anchor bolts
10 and into engagement with the flange, holding the pipe and tubular shell rigidly upon the foundation; access to the threaded extremities of the anchor bolts 2 being had through the opening 23 in the base portion
15 9 for screwing the nuts 21 thereon.

As shown in Figs. 3 and 4, the flange 10a is of greater width than the flange 10 in Figs. 1 and 2, and is provided with apertures 22 arranged to register with the apertures 20, in the flange 5, and to also receive
20 the upper ends of the anchor bolts. The nuts 21 are in this case screwed down upon the flange 10a and thus positively connect the shell and reinforcing pipe together at
25 their lower ends.

From the above it will be obvious that the difficulties and objections encountered in the usual practice of erecting tubular poles with pipe reinforcements are overcome as
30 there is no necessity for hoisting the tubular pole up above the top of the pipe in order to position the same around the pipe.

In the present case the pipe and tubular pole are firmly connected together and erected
35 upon the foundation as a unit without requiring any special rigging for hoisting the tubular pole into position without danger to the workmen.

I claim:

40 A tubular pole, a reinforcing pipe located therein, a hollow base portion upon the pole, a flange upon the lower portion of the pipe and located within said hollow base portion, means projecting from the base for contact
45 with the upper side of the flange, when the upper ends of the pipe and pole are connected together, means connecting the upper ends of the pipe and pole together whereby they may be erected as a unit, a foundation, and anchor bolts in the foundation arranged to be connected to the flange on the
50 pipe.

In testimony that I claim the above, I have hereunto subscribed my name.

55 EDMUND W. RIEMENSCHNEIDER.