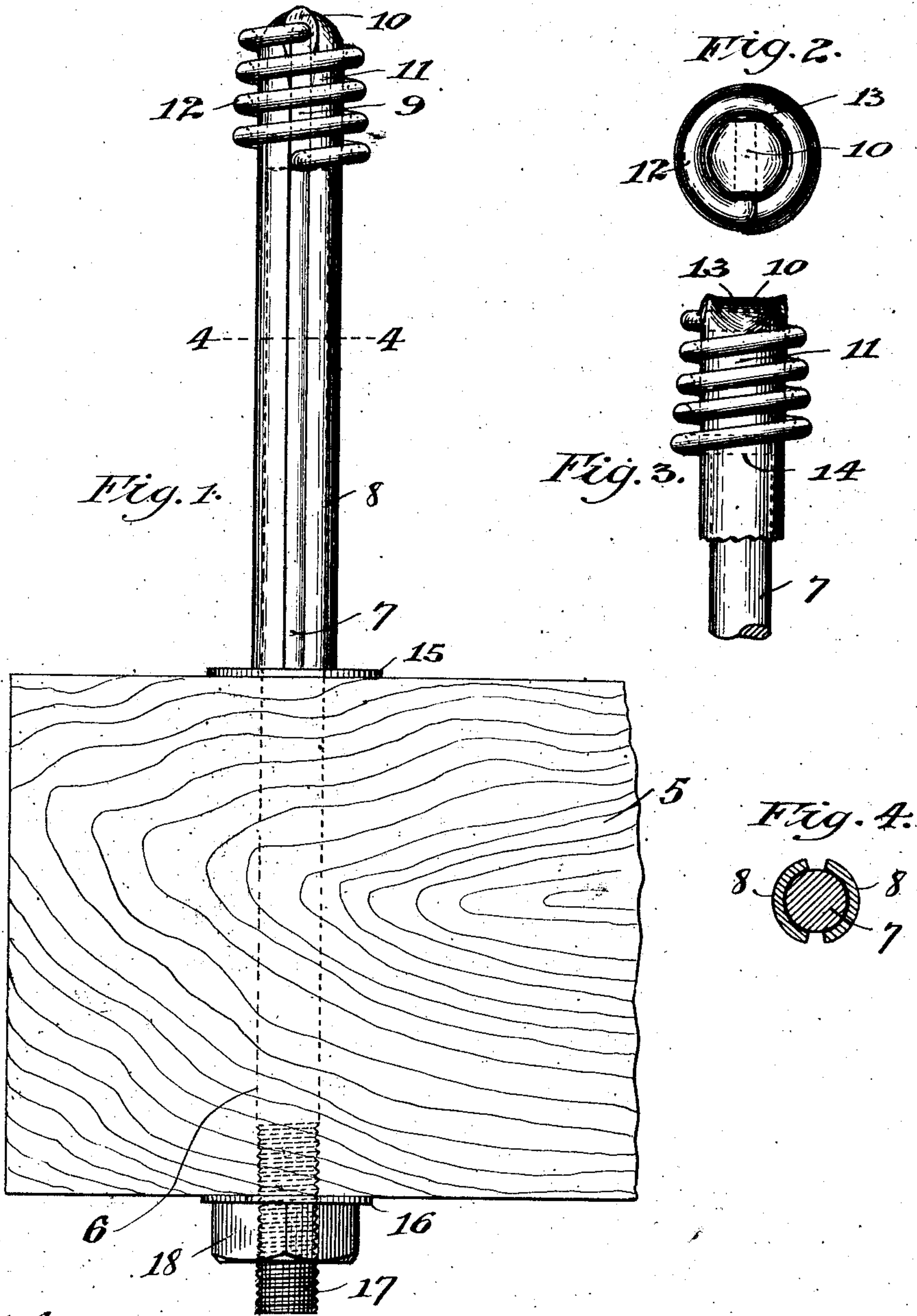


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PATENTED APR. 7, 1908.

G. L. PEIRCE, JR.
INSULATOR SUPPORT.
APPLICATION FILED AUG. 19, 1907.



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UNITED STATES PATENT OFFICE.

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INSULATOR-SUPPORT.

No. 883,823.

Specification of Letters Patent.

Patented April 7, 1908.

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To all whom it may concern:

Be it known that I, CHARLES L. PEIRCE, Jr., a citizen of the United States, residing at Elkhart, in the county of Elkhart and State of Indiana, have invented certain new and useful Improvements in Insulator-Supports, of which the following is a specification.

This invention relates to insulators for telephone, telegraph and similar electricity-conducting wires, and it pertains more especially to a new and useful form and construction of support for the coil spring on which the usual glass insulator proper is supported.

The main object of the invention is to provide a simple, economical, easily constructed, and efficient device of the character specified, and to this end the invention consists in the novel construction and combination of parts as hereinafter more particularly described and pointed out in the claims.

Insulators of that type wherein the glass cap or insulator proper is mounted on a standard through the intervention of a coil spring engaging a spirally grooved or threaded internal surface of the glass cap are old in the art and are typically shown by prior patents granted to me on the 11th day of June, 1907, Nos. 856,488 and 856,801. The manufacture of insulators of this class requires drilling, slotting, grooving or other metal cutting or boring operations to be performed on the bracket or post forming the support to form an anchorage for the coil spring that carries the insulator proper; and a leading advantage of my present construction resides in the fact that none of these operations are required therein, the anchorage of the spring being supplied by means of a narrow inverted U-shaped member that is secured to a bracket which preferably takes the form of a plain rod or post with its closed end projecting above the upper end of the latter for a distance substantially equal to the length of the spring employed and constituting in effect a narrow loop between the sides of which the transversely bent ends of the surrounding spring are inserted. Prior constructions have also, so far as I am aware, limited the cross-sectional dimensions of the upright support carrying the spring, whether a channel, angle, or other form of upright, to the diameter of the spring employed in each case; whereas in my present construction a post of any cross-sectional form or dimen-

sions whatever may be used in combination with the spring-supporting loop member that is mounted thereon. In its simplest, cheapest and preferred form the spring-supporting member is made by simply bending double on itself at its longitudinal center a malleable metal strip with its two sides or sections spaced sufficiently to admit the ends of the spring between them, and said sides or sections being suitably secured to the rod or post.

The invention will be readily understood in respect to all of its details of structure when considered in connection with the accompanying drawing which illustrates a preferred form thereof and in which,—

Figure 1 is a side elevational view of the complete device, the same being shown as mounted upon an arm of a telegraph or telephone pole. Fig. 2 is a top plan view of the same. Fig. 3 is a side elevational view of the upper end of the support in a plane at right angles to that of Fig. 1. Fig. 4 is a cross-sectional view on the line 4—4 of Fig. 1.

Referring to the drawings, 5 designates the end portion of an ordinary wooden arm of a telegraph or telephone pole, the same having a vertical transverse aperture indicated at 6, receiving the lower portion of an upright bracket herein shown as a metal rod or post 7.

8 designates as an entirety a metal strip of concavo-convex form in cross-section that is bent double on itself at its longitudinal center and secured to the upwardly projecting portion of the post 7 as by welding, brazing, soldering, or in any other suitable manner. The parallel sections of the strip 8 thus formed have a transverse extent or length of arc somewhat less than one-half of the circle defined by a cross-section of the post 7, as plainly shown in Fig. 4; so that the edges of the sections do not meet around the post but are separated or spaced thereby, forming in effect above the post a longitudinal slot which is closed at its upper end by the metal at the bend constituting the transverse connection 10 of the two parallel sides or sections, the portion of the bent strip above the post thus constituting a narrow vertical loop designated by 11. Surrounding this loop is a coil spring 12, the upper and lower ends 13 and 14 of which are bent diametrically of the spring and are passed between the sides of the loop, the upper end lying directly be-

neath the transverse connecting member 10 of the loop and the lower end resting upon the upper end of the post 7. It will thus be seen that the spring is very securely held
 5 against yielding or displacement in any direction, the engagement of the transverse end portions 13 and 14 with the upper ends of the loop and post, respectively, preventing longitudinal displacement and their engage-
 10 ment with the sides of the loop preventing any rotary movement of the spring. The glass cap or insulator proper is screwed onto the spring, thus supported, in the usual manner. Washers 15 and 16 are preferably
 15 applied to the post above and below the arm 5, as shown; the lower ends of the parallel sides or sections of the strip 8 resting upon the upper washer 15, and the lower end of the post being threaded as shown at 17, to re-
 20 ceive a nut 18 screwed against the under side of the lower washer 16. The washers 15 and 16 may, of course, be omitted, if desired, and the specific cross-sectional or other forms of the post and spring-engaging strip may ob-
 25 viously be varied as desired without departing from the principle of the invention or sacrificing any of the advantages thereof.

I claim:

1. An insulator support comprising in
 30 combination a bracket, a narrow loop member secured to said bracket and having its closed end projecting above the latter, and a coil spring surrounding said loop member and having an end portion thereof bent
 35 transversely and inserted between the sides

of said loop member, substantially as described.

2. An insulator support comprising in combination a post, a wrought metal strip bent double on itself at its longitudinal center 40 and secured to said post with its closed end projecting above the top of the latter, and a coil spring surrounding the projecting end of said strip and having its end portions bent transversely and inserted between the sides 45 of said strip, substantially as described.

3. An insulator support comprising in combination a post of curved form in cross-section, a wrought metal strip likewise of curved form in cross-section bent double on 50 itself at its longitudinal center and embracing and secured to said post, the parallel sides of said bent strip being spaced and projecting beyond the upper end of said post, and a coil spring embracing the projecting 55 end of said bent strip and having its end portions bent transversely and inserted between the sides of said projecting portion, said spring ends also engaging the upper end of said post and the transverse connecting por- 60 tion of said bent strip whereby said spring is supported against longitudinal displacement, substantially as described.

In testimony that I claim the foregoing as my invention, I have hereunto subscribed my 65 name in the presence of two witnesses.

CHARLES L. PEIRCE, JR.

Witnesses:

SAMUEL N. POND,
 FREDERICK C. GOODWIN.