

E. C. SHORT.
SUPPORT FOR POLE CROSS ARMS.
APPLICATION FILED APR. 27, 1905.

Fig. 1

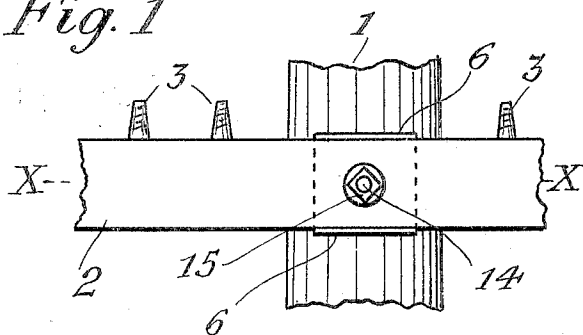


Fig. 2

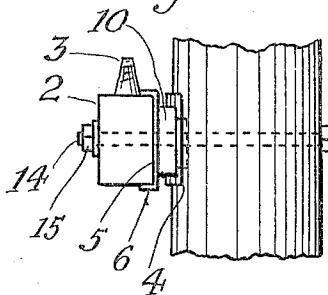


Fig. 4

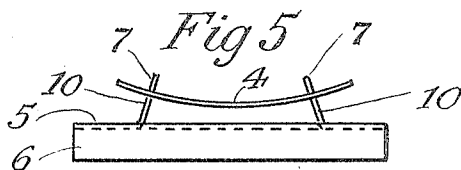
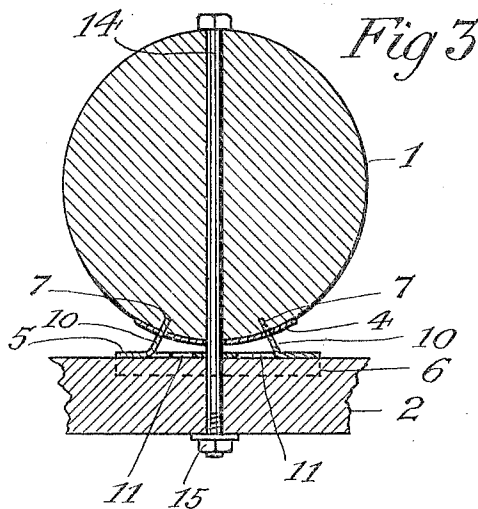
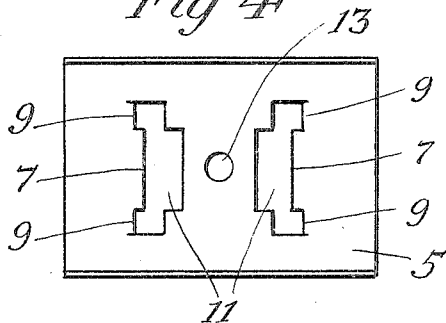


Fig. 7

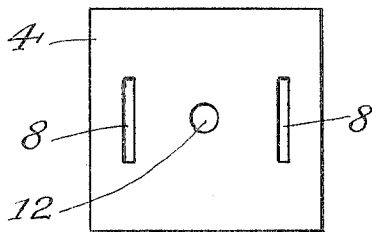
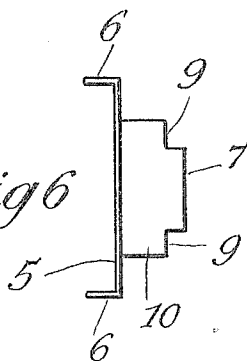


Fig. 6



Witnesses:
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H. A. Bowman.

Inventor:
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UNITED STATES PATENT OFFICE.

EDWARD C. SHORT, OF ST. PAUL, MINNESOTA.

SUPPORT FOR POLE CROSS-ARMS.

No. 804,630.

Specification of Letters Patent.

Patented Nov. 14, 1905.

Application filed April 27, 1905. Serial No. 257,562.

RECORDED

To all whom it may concern:

Be it known that I, EDWARD C. SHORT, a citizen of the United States, residing at St. Paul, county of Ramsey, and State of Minnesota, have invented certain new and useful Improvements in Supports for Pole Cross-Arms, of which the following is a specification.

My invention relates to devices for attaching cross-arms to posts or poles; and its chief object is to provide a convenient and serviceable device for supporting the cross-arms on telegraph and telephone poles.

Stated in a general way, the device comprises a pair of plates which engage the pole and cross-arm and a bolt for holding the parts together.

My improvements are illustrated in the accompanying drawings, in which—

Figure 1 shows in front elevation a post and a cross-arm supported thereon by the devices of my improvement. Fig. 2 is a side elevation of the same. Fig. 3 is a horizontal sectional view on the line *xx* of Fig. 1. Figs. 4, 5, and 6 are respectively front, top, and end views of the outer plate detached; and Fig. 7 is a face view of the inner plate detached.

In the drawings, 1 designates a portion of a wooden post or pole, and 2 a cross-arm having pins 3 for holding insulators for telephone-wires or other conducting-wires. Ordinarily the cross-arms are attached to such posts by seating them in gains or mortises cut in the posts and securing them in place by bolts. There are a number of objections to that mode of attaching the arms which are avoided by my improvement.

I provide a curved inner or post plate 4, which bears against the post, and being made of sheet-steel is capable of being bent to conform substantially to the shape of the adjacent portion of the post.

An outer or cross-arm plate 5 is provided with outward flanges 6 along its upper and lower edges to form a socket to receive the cross-arm and prevent it from tilting. This plate is also preferably made of sheet-steel, so that it can be shaped by dies.

At opposite sides of its middle are inward tongues 7, extending nearly at right angles from the body of the plate, and the post-plate 4 is provided with slots 8, through which the tongues 7 pass to contact with the post. The extent to which the tongues may penetrate the

post is limited by contact of the shoulders or offsets 9 of the wider or base portions 10 of the tongues with the surface of the post-plate. The bearing of these shoulders on the inner plate and the comparatively close fit of the upper and lower edges of the tongues 7 in the slots 8 aid in keeping the two plates firmly together to hold the cross-arm in proper horizontal position. The openings left in the plate 5 by the forming and bending inward of the tongues are indicated at 11.

Holes 12 and 13 are made in the centers of the two plates for the passage of a bolt, and a bolt 14 is passed through the post and the plates and the cross-arm. A nut 15 enables the parts to be drawn firmly together, the tongues 7 pressed into the post and the inner plate bent to conform approximately to the curve of the post.

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

1. A cross-arm support, comprising a post-plate, a cross-arm plate, tongues on the latter extending through slots in the former to contact with the post, a bolt for clamping such plates between a cross-arm and a post, substantially as set forth.

2. A cross-arm support, comprising a post-plate, a cross-arm plate, tongues on the latter extending through slots in the former to contact with the post, means for limiting the extent of the tongue movements through said slots, and a bolt for clamping such plates between a cross-arm and a post, substantially as set forth.

3. A cross-arm support, comprising a curved post-plate, a cross-arm plate having upper and lower flanges, tongues on the latter extending through slots in the former to contact with the post, and a bolt for clamping such plates between a cross-arm and a post, substantially as set forth.

4. A cross-arm support, comprising a curved post-plate, a cross-arm plate having upper and lower flanges, tongues on the latter extending through slots in the former to contact with the post, means for limiting the extent of the tongue movements through said slots, and a bolt for clamping such plates between a cross-arm and a post, substantially as set forth.

5. The combination with a post and cross-arm, of a pair of plates consisting of a curved

plate in contact with the post, an outer plate
in contact with the cross-arm and having
tongues extending through the curved plate
into the post, and a bolt for clamping such
5 plates between the post and cross-arm, sub-
stantially as set forth.

In testimony whereof I have signed my name

to this specification, in the presence of two sub-
scribing witnesses, this 21st day of April, 1905.

EDWARD C. SHORT.

Witnesses:

P. H. GUNCKEL,

H. A. BOWMAN.