

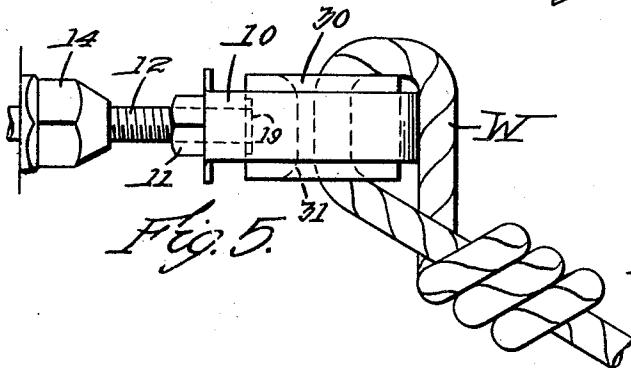
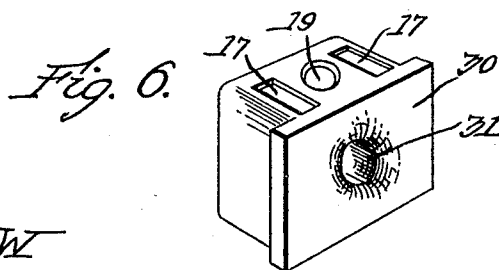
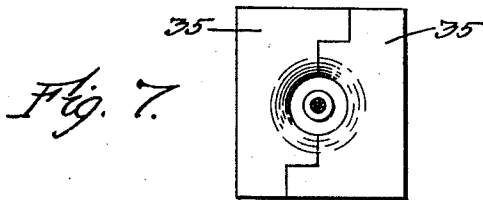
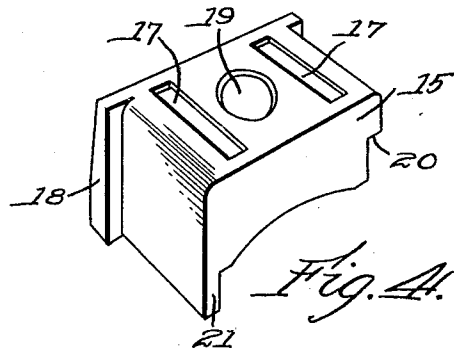
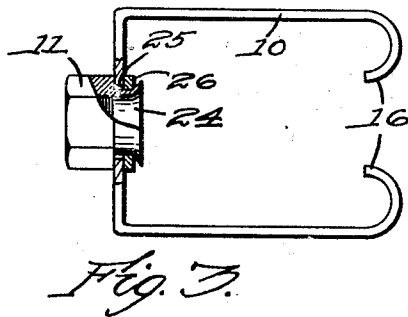
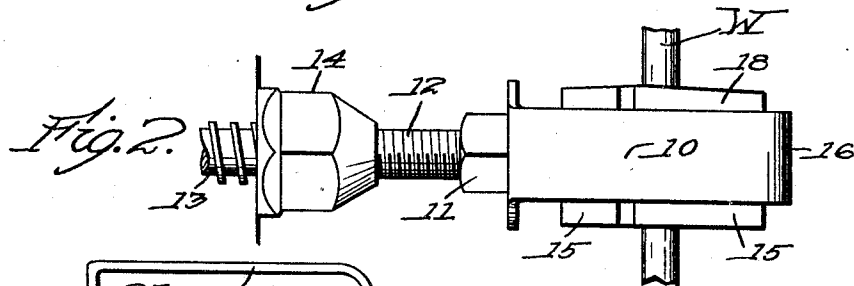
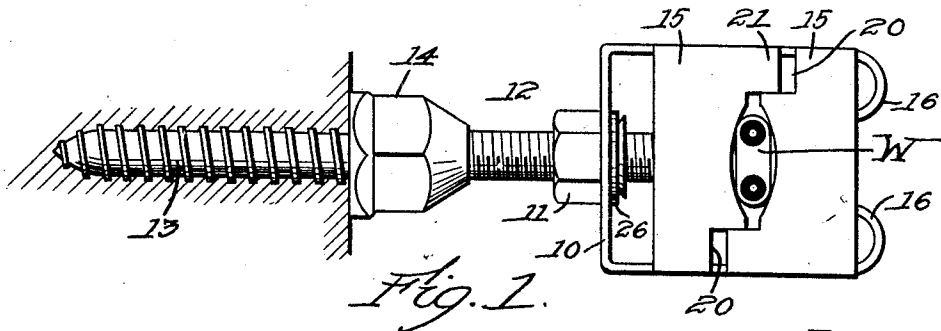
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INSULATOR SUPPORT FOR WIRES

Filed March 27, 1926



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UNITED STATES PATENT OFFICE.

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INSULATOR SUPPORT FOR WIRES.

Application filed March 27, 1926. Serial No. 98,003.

This invention relates to a bracket or support for securing electric light or power wires in position.

The invention is particularly well adapted for securing twin wires to the side of a pole or post, as is frequently necessary in dropping down from the feed wires at the top of the pole to a light bracket on the side of the pole.

It is one object of my invention to provide an improved insulating bracket by which the wires may be very easily secured and as easily released, the wires being inserted by a simple transverse movement and without the necessity of drawing the wires lengthwise through the insulator blocks.

Another object is to provide such a bracket in which both the insulator blocks and the supporting frame are of simple construction and of great strength, and in which the breaking of an insulator block will not permit displacement of the wires.

My invention further relates to arrangements and combinations of parts which will be hereinafter described and more particularly pointed out in the appended claims.

A preferred form of the invention and modifications are shown in the drawings in which

Fig. 1 is a plan view of my improved insulator bracket;

Fig. 2 is a side elevation thereof;

Fig. 3 is a plan view of the insulator frame;

Fig. 4 is a perspective view of one of the insulator blocks;

Fig. 5 is a side elevation showing a modified form;

Fig. 6 is a perspective view of the modified block, and

Fig. 7 is a plan view of a further modification.

Referring particularly to Figs. 1 to 4, my improved insulator bracket comprises a substantially U-shaped metal frame 10 provided with a swivel nut 11, threaded on a rod 12. The rod 12 is shown as forming an extension of a lag screw 13, having a portion 14 to which a wrench may be applied.

A pair of insulator blocks 15 are slidably mounted in the frame 10 and the outer block 15 is engaged at its outer face by the inwardly offset or reversely bent ends 16 of the side portions of the frame 10. These offset ends 16 are preferably received in recesses 17 (Fig. 4) in the outer face of the outer insulator block 15.

The blocks 15 are provided with flanges 18 adapted to engage the upper edge of the frame 10 and thus prevent downward displacement of the blocks. Each block 15 is also preferably provided with a shallow recess 19 (Fig. 4) adapted to receive the end of the threaded rod 12.

Each block 15 is also recessed on one corner, as indicated at 20, and is provided with a projection 21 at the opposite corner. The projection 21 of one block enters the recess 20 of the opposite block and acts to bridge over the space between the blocks, so that there is no open air space between the supported wire W and the frame 10 which is commonly of metal.

The adjacent faces of the blocks 15 are concaved to adapt them to grip and center a wire between them. They are particularly adapted for holding twin wires.

The nut 11 is provided with an axially projecting flange or sleeve portion 24, adapted to project loosely through an opening 25 in the cross bar of the body 10 and also through a washer 26. The flange 24 is headed over inside of the washer 26, thus forming a loose swivel connection between the nut 11 and the frame 10.

Having described the details of construction of one form of my improved insulator bracket, the operation and advantages thereof will be readily apparent.

The bracket is first attached to a pole or post or other supporting surface by applying a wrench to the portion 14 of the lag screw and seating the screw firmly in the supporting structure. The frame 10 is then threaded onto the rod 12 until the rod reaches the inner face of the washer 26, at which point the inner insulator block 15 may be dropped into the frame 10 from above. The wire W is then slipped into the frame 10 through the space between the offset ends 16, after which the second insulator block 15 is dropped into place.

The nut 11 is then turned on the rod 12 to move the nut along the rod toward the portion 14 of the lag screw. This causes the end of the threaded rod 12 to be projected through the cross bar of the frame 10, engaging the inner block 15 and forcing both blocks outward against the offset ends 16.

The nut 11 is then turned on the rod 12 to move the nut along the rod toward the portion 14 of the lag screw. This causes the end of the threaded rod 12 to be projected through the cross bar of the frame 10, engaging the inner block 15 and forcing both blocks outward against the offset ends 16.

Any desired pressure may then be exerted to clamp the wire W between the concave faces of the insulator blocks 15. The frame 10 is of a very strong and substantial construction, but nevertheless it possesses some degree of resilience and presents a slightly yielding support for the blocks 15, which are commonly of porcelain.

The wires are thus very easily inserted in the bracket and very firmly secured in position, and the blocks 15 are of such thickness and shape that they are not easily broken by undue pressure thereon. However, if a block should be broken by undue pressure, the parts are so constructed that they are commonly retained in position even after being broken, so that the wires are still sustained and protected.

The entire construction is cheaply and easily manufactured and is very convenient in use.

While I have shown the device as mounted on a pole or post, it will be understood that the threaded rod 12 may be supported or secured in any other convenient manner, as my invention is not in any way limited to the particular means shown for supporting the rod 12.

In Figs. 5 and 6, I have shown the use of my improved bracket as a terminal or anchorage. For this purpose, I provide a single insulator block 30 having an opening 31 adapted to receive a wire. This block 30 may be inserted in the frame 10 and may be retained by the rod 12 as previously described, and forms a convenient anchorage or terminal.

In Fig 7 I have shown duplicate insulator blocks 35 provided with enlarged semi-cylindrical recesses in their adjacent faces, adapting them for use in guiding a wire past a tree or other obstruction.

Having thus described my invention and the advantages thereof, I do not wish to be limited to the details herein disclosed otherwise than as set forth in the claims, but what I claim is:

1. An insulating support for wires comprising a substantially U-shaped metal frame having reversely bent ends, an insulator block slidably fitting in said frame and having pockets to receive the bent ends of said frame and means to force said block outward against said bent ends to retain said block from displacement.

2. An insulating support for wires, comprising a substantially U-shaped metal frame having reversely bent spaced ends, a pair of insulator blocks slidably fitting in said frame one of said blocks having pockets to receive the bent ends of said frame, and means to force said blocks outward against said bent ends to retain a wire between said blocks.

3. An insulating support for wires, com-

prising a substantially U-shaped metal frame having reversely bent ends, a pair of insulator blocks slidably fitting in said frame, and means to force said blocks outward against said bent ends to hold a wire, said blocks being of rigid porcelain and said ends being resilient and adapted to yield slightly to outward pressure applied to said rigid porcelain blocks.

4. An insulating support for wires, comprising a substantially U-shaped metal frame having inwardly offset spaced ends, insulating wire-folding means loosely mounted in said frame for free sliding outward movement therein to engagement with said offset ends, a nut swiveled in the base portion of said U-shaped frame, and a rod threaded in said nut and movable against said insulating means by rotation of said nut to exert outward clamping pressure thereon.

5. An insulating support for wires, comprising a threaded supporting member, a substantially U-shaped metal frame having inwardly offset ends, a nut threaded on said supporting member and swiveled in the base portion of said frame, a pair of insulator blocks slidable in said frame, one of said blocks being engaged at its outer side by the inwardly offset ends of said frame and the other of said blocks being engaged at its inner side by said threaded supporting member, by which member the blocks may be forced outward to grip the wire when said nut is rotated.

6. An insulating support for wires, comprising a substantially U-shaped metal frame having inwardly offset spaced ends, insulating wire-holding means slidably mounted in said frame but held from transverse displacement in one direction only, a support for said frame having a threaded extension, and a nut on said threaded extension swiveled in the base of said frame, rotation of said nut causing said extension to be projected through said nut and frame and against said insulating means to force said insulating means outward against the offset ends of the frame and to thereby firmly secure said insulating means in said frame.

7. An insulating support for wires, comprising a rod, a substantially U-shaped metal frame mounted thereon and having inwardly offset spaced ends, a pair of insulator blocks slidably fitting in said frame, and means mounted on said support to cause engagement of the blocks with said rod, to force said blocks outward against the offset ends of said frame to grip a wire, said blocks having outwardly projecting side flanges on one side only engaging an edge of said frame and preventing transverse displacement of said blocks in one direction therein.

8. An insulating support for wires, hav-

in an extension thereon, a substantially U-shaped metal frame mounted on the extension and having inwardly offset spaced ends, a pair of insulator blocks slidably fitting in said frame, means swiveled on said frame to cause engagement of the blocks with the extension, to force said blocks outward against said offset ends to clamp a wire between the blocks, and non-conducting means effective to shield the metal frame at the ends of the wire space between the blocks.

9. An insulating support for wires, comprising a rod, a substantially U-shaped metal frame mounted thereon and having inward-

ly offset spaced ends, a pair of porcelain insulating blocks slidably fitting in said frame, and means causing engagement of the blocks with said rod, to force said blocks outward against said offset ends to clamp a wire between the blocks, each of said blocks having a corner recess and an associated projection extending into said recess of the other block to shield said metal frame at the ends of the wire space between said blocks. In testimony whereof I have hereunto affixed my signature.

PETER L. PETERSON.