A. F. DIXON & W. E. FREEMAN.

JACK.

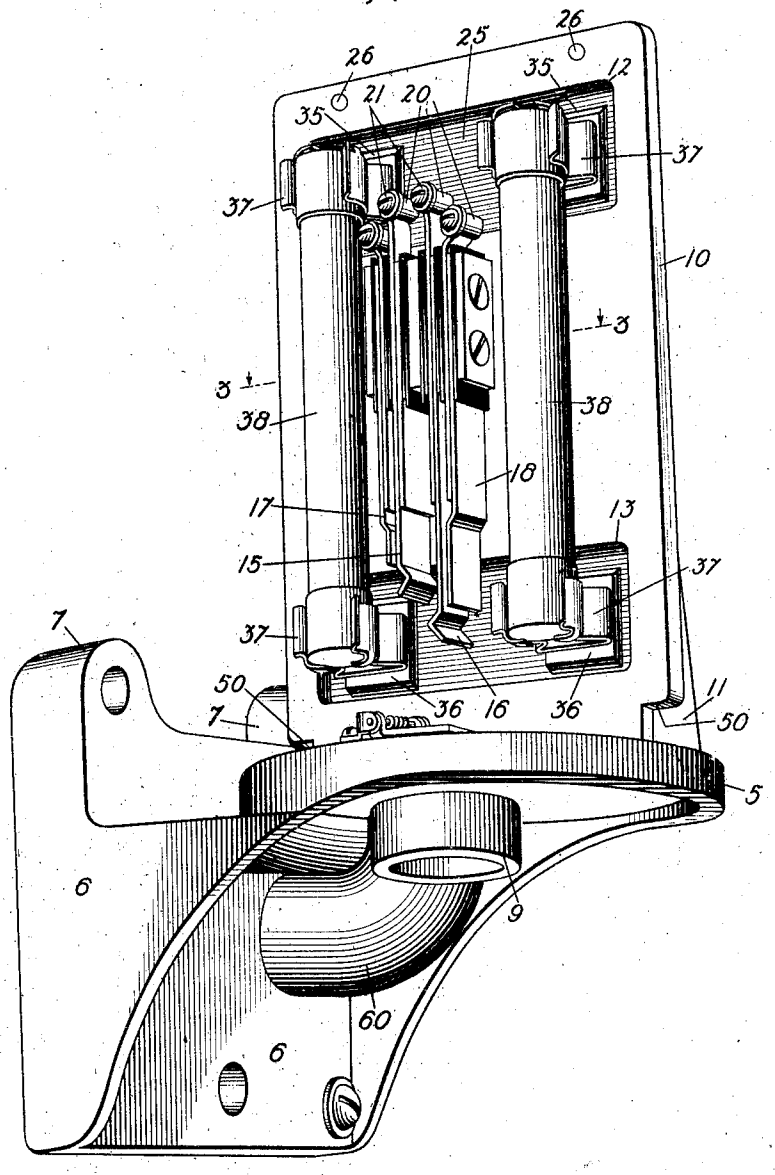
APPLICATION FILED APR. 5, 1911.

1,043,810.

Patented Nov. 12, 1912.

3 SHEETS—SHEET 1.

Fig. 1.



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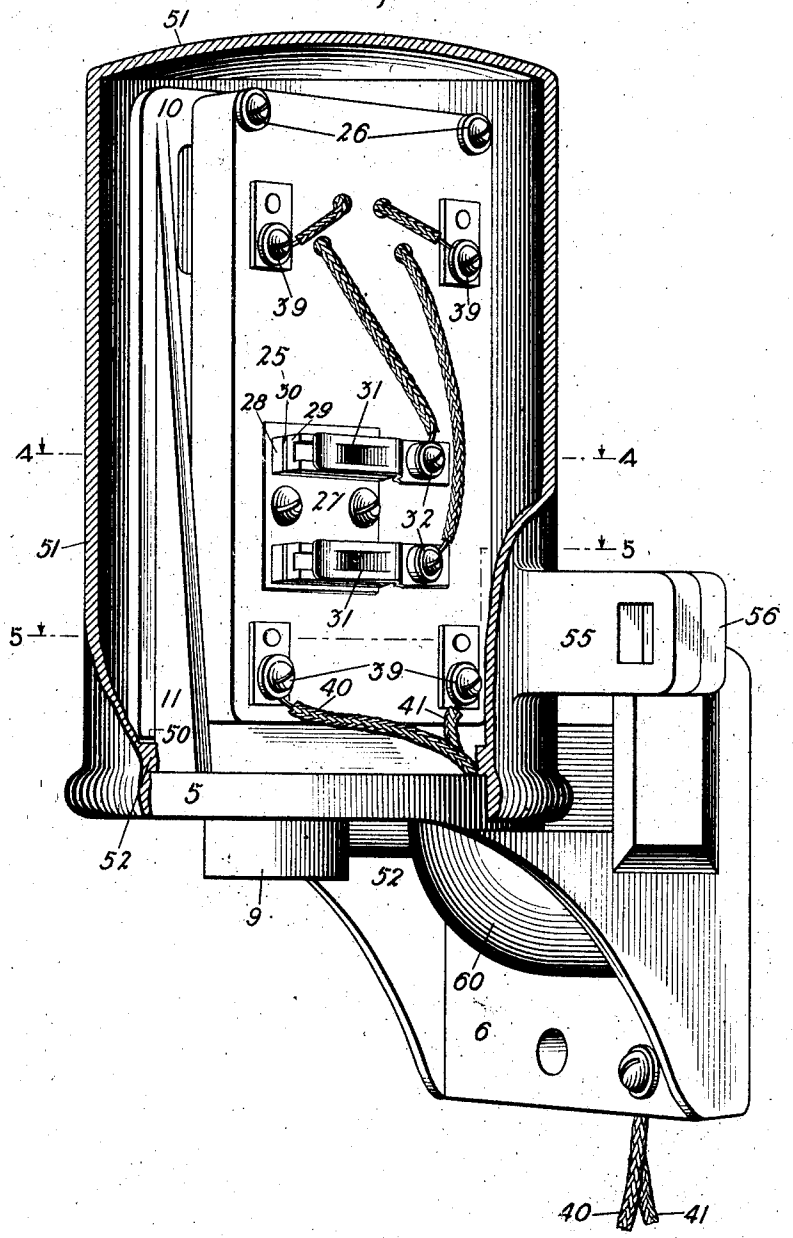
3 SHEETS—SHEET 2.

Fig. 2.



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3 SHEETS—SHEET 3.

Fig. 3.

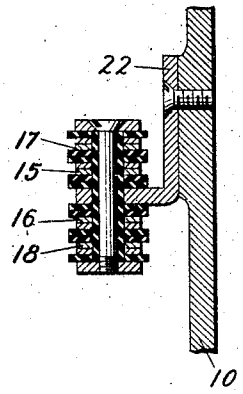


Fig. 4.

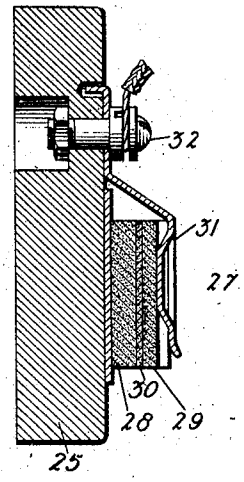
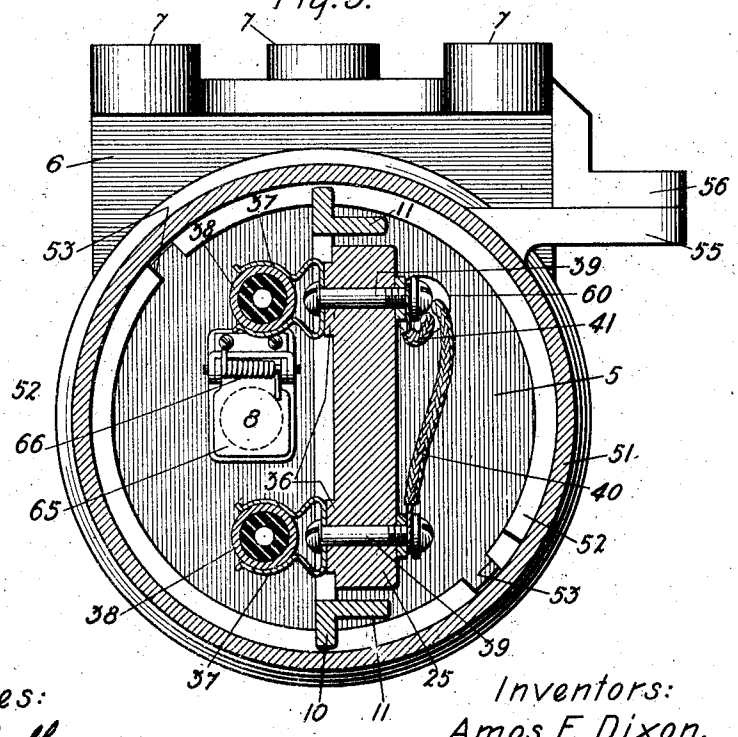


Fig. 5.



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UNITED STATES PATENT OFFICE.

AMOS F. DIXON, OF NEWARK, AND WILLIAM EDWIN FREEMAN, OF EAST ORANGE, NEW JERSEY, ASSIGNORS TO WESTERN ELECTRIC COMPANY, OF NEW YORK, N. Y., A CORPORATION OF ILLINOIS.

JACK.

1,043,810. Specification of Letters Patent. Patented Nov. 12, 1912.

Application filed April 5, 1911. Serial No. 619,122.

To all whom it may concern:

Be it known that we, AMOS F. DIXON and WILLIAM EDWIN FREEMAN, citizens of the United States, residing at Newark, in the county of Essex and State of New Jersey, and East Orange, in the county of Essex and State of New Jersey, respectively, have invented a certain new and useful Improvement in Jacks, of which the following is a full, clear, concise, and exact description.

This invention relates to a jack for use in electric railway telephone systems and has for its object the provision of a structure which is durable and compact, which provides a convenient means for mounting the apparatus so that it will be well protected and readily accessible and a structure which is well adapted to withstand the weather and service conditions to which apparatus of this type is subjected.

One feature of this invention comprises the arrangement of a mounting plate for jack springs, fuses and protectors, whereby these various devices are supported in a convenient manner well insulated from all adjacent parts and the jack springs are retained in a fixed relation to the sleeve of the jack.

Other features of this invention relate to the various details of the apparatus, supports and cover and other details of construction.

In the drawings—Figure 1 is a perspective of the device with the cover removed illustrating one side of the mounting plate and supported parts. Fig. 2 is a view with the cover in section illustrating the opposite side of the mounting plate from that illustrated in Fig. 1. Fig. 3 is a horizontal sectional view taken upon line 3—3 of Fig. 1. Fig. 4 is a horizontal sectional view taken upon line 4—4 of Fig. 2. Fig. 5 is a sectional view taken upon line 5—5 of Fig. 2.

In the drawings, 5 designates a circular base carried by a bracket member 6 which is adapted to be secured to a pole or other support. As shown the base 5 and bracket 6 are formed integrally, preferably by casting, and the bracket is provided with apertured lugs 7, 7, adapted to receive lag screws or bolts for supporting the jack. Extending vertically through the base 5 is an opening 8 through which a plug may be inserted for engagement with the jack springs as will hereinafter appear. A sleeve 9 formed integrally with the base 5 adjacent to said opening extends downwardly from the bottom face of said base and serves as a guide for the plug when it is to be inserted.

Mounted upon the base 5 is a vertically arranged plate 10. This plate 10 is preferably formed integrally with said base and is strengthened by means of laterally projecting reinforcing ribs 11 thereon. Laterally arranged rectangular openings 12 and 13 are provided near the opposite ends of said plate. Mounted upon the plate 10 between said rectangular openings 12 and 13 are jack and contact springs 15, 16, 17 and 18 insulated from each other and from said plate. The inner ends of the jack springs 15 and 16 are arranged directly in line with the opening 8 and have their ends offset in a vertical direction to make contact with ring and tip contacts on a plug. Each of the springs is bent back upon itself at its upper end to form a sleeve 20 which is tapped to receive a binding screw 21 for securing conductors to said springs. As shown in Fig. 3, these springs 15, 16, 17 and 18 are mounted upon a bracket 22 which is rigidly secured to the mounting plate 10; said springs being insulated from said bracket 22. Mounted upon one face of said plate 10 is a block 25 of porcelain or like insulating material, said block being secured to said plate by means of screws 26, 26. Mounted upon one side of said porcelain block 25 are carbon protectors or lightning arresters 27, 27 of a type well known in the art and each of which comprises two carbon blocks 28 and 29 supporting between them a strip of mica 30 and all being held together by one end of a spring contact 31, the opposite end of which is rigidly secured to the porcelain block by means of a binding post screw 32. Upon the opposite face of the porcelain block 25 and adjacent the openings 12 and 13 in the plate 10 are raised

or projecting portions 35, 35 and 36, 36 which extend part of the way through said openings. Mounted upon said raised portions are fuse clips 37, 37 adapted to receive and hold in a vertical position upon the opposite sides of said springs, cartridge fuses 38, 38. Each of the fuse clips 37 is secured to the porcelain block 25 by means of a screw 39 which extends through said block, the lower ones of said screws being adapted to receive conductors 40 and 41.

The plate 10 is approximately the same width as the diameter of the base except at its lower end where it is cut away to form notches 50, 50 adapted to interlock with a cover 51 with which the apparatus hereinbefore described is protected. As shown in Figs. 2 and 5 the cover 51 is cylindrical in shape and of a diameter to fit snugly over the above apparatus and base plate. Located near the lower end of said cover is an interior flange 52 adapted to rest upon the upper face of said base 5 when said cover is in place. As shown, this flange is provided with oppositely located notches 53, 53 adapted as the cover is placed over the parts or removed to engage the margins of the plate 10. When in place upon the jack and turned through a slight angle the flange 52 is brought into locking engagement with the lower end of the plate 10 by reason of the notches 50, 50. A projecting lug 55 on the cover is adapted to be brought into engagement with a corresponding lug 56 on the bracket 6; the two lugs being provided with alined openings adapted to receive a padlock.

The conductors 40 and 41 hereinbefore referred to are brought in from the outside of the jack through a duct 60 opening through the base 5 and the bracket 6. Covering the opening 8 is a trap door 65 which is opened by the insertion of a plug and closed by a spring 66.

We claim:

1. In a pole jack, the combination with a base plate provided with an aperture, of a mounting plate carried by said base plate, jack springs rigidly supported upon one face of said mounting plate in line with said aperture, an insulating block secured to the opposite face of said mounting plate, and protective devices located upon the same side of said mounting plate as said springs and secured to said mounting block.

2. In a pole jack, the combination with a base plate provided with an aperture, of a mounting plate carried by said base plate and having openings therethrough, jack springs rigidly supported upon one face of said mounting plate in line with the aperture through said base plate, an insulating block secured to the opposite face of said mounting plate, fuse clips secured to said insulating block adjacent to the openings in said mounting plate, and fuses mounted in said clips.

3. In a pole jack, the combination with a base, of a mounting plate carried by said base, said mounting plate being provided with openings near the opposite ends thereof, jack springs secured to one face of said mounting plate between said openings, an insulating block secured to the opposite face of said mounting plate and having projections extending into the openings in said mounting plate and fuse clips secured to the projections on said insulating block.

4. In a pole jack, the combination with a base plate, of a mounting plate carried by said base plate, jack springs rigidly secured to one face of said mounting plate, an insulating block secured to the opposite face of said mounting plate, fuses mounted upon one face of said block, and carbon protectors secured to the opposite face of said insulating block.

5. In a pole jack, the combination with a base plate provided with an aperture therethrough, of a mounting plate located centrally of said base and extending at right angles thereto, jack springs rigidly secured to said mounting plate in position to be engaged by a plug inserted through the aperture in said base, an insulating block secured to the opposite face of said mounting plate, fuses carried by said insulating block upon each side of said jack springs and carbon protectors mounted upon the opposite face of said insulating block.

6. In a pole jack, the combination with a circular base plate, of a rectangular mounting plate carried by said base plate and extending at right angles thereto, a cover having an inwardly extending flange adapted to be placed over said plates, said flange being provided with notches adapted to engage the margins of said mounting plate as said cover is placed in position.

7. In a pole jack, the combination with a circular base plate, of a rectangular mounting plate carried thereby and extending at right angles thereto, said plate being provided with notches on its end adjacent said base plate, and a cover for said plates having an inwardly extending annular flange located near one end thereof, said flange being provided with notches adapted to engage the margins of said mounting plate as said cover is being placed in position and said flange being adapted to engage the notches in said mounting plate when said cover is in position.

8. In a pole jack, the combination with a supporting bracket, of a projecting lug formed integrally therewith, a horizontally arranged base plate formed integrally with said bracket, a vertically arranged mounting plate formed integrally with said base plate, a cover adapted to fit over said mount-

ing and base plates, and an integral lug carried by said cover, said lug being adapted to be brought into engagement with the lug on said bracket, the two lugs being provided with alined openings to receive a padlock.

In witness whereof, we hereunto subscribe our names this 4th day of April, A. D., 1911.

AMOS F. DIXON.
WILLIAM EDWIN FREEMAN.

Witnesses:
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