April 15, 1930. R. G. WILLIAMS 1,754,924

POLE ATTACHMENT FOR ELECTRIC CONDUCTORS

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FIG. 1.

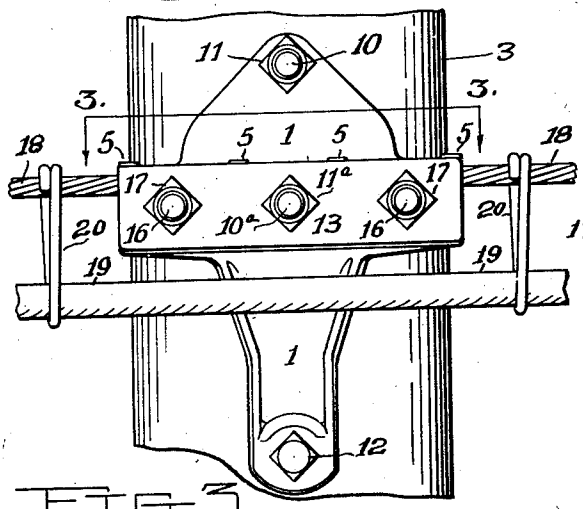


FIG. 2.

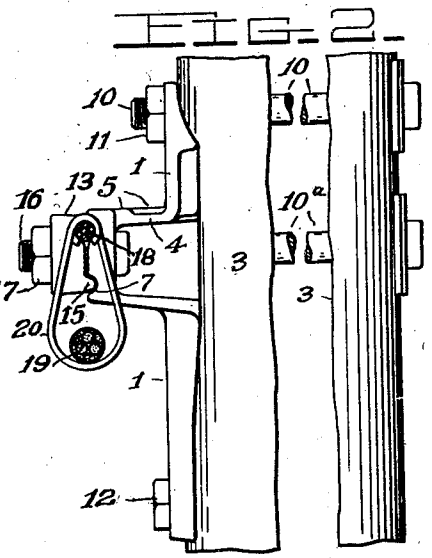


FIG. 3.

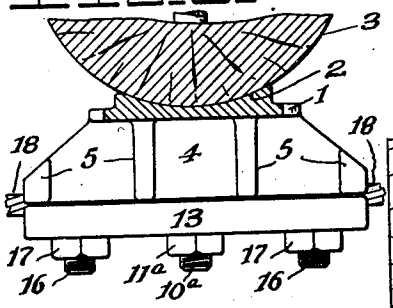


FIG. 4.

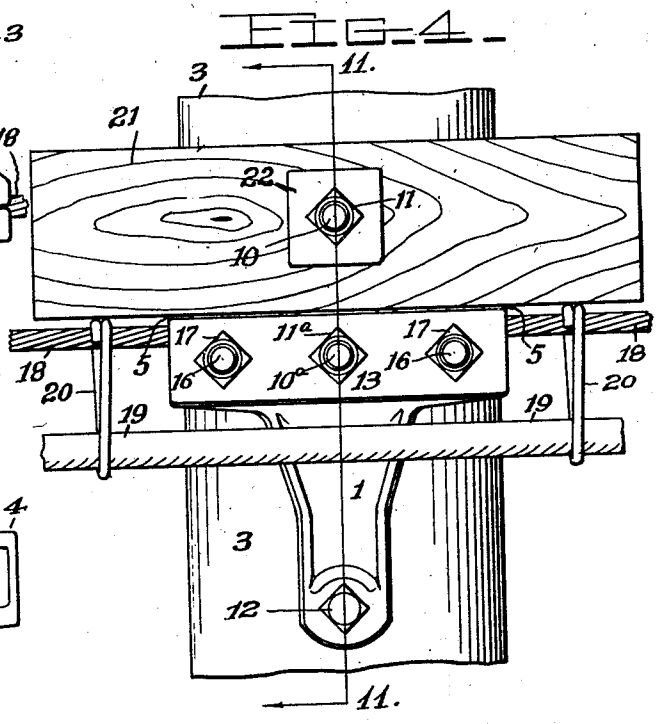
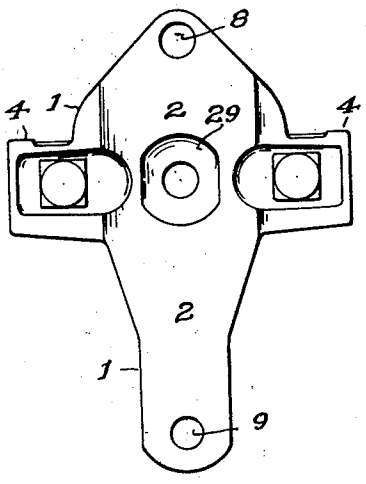


FIG. 5.



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FIG. 6.

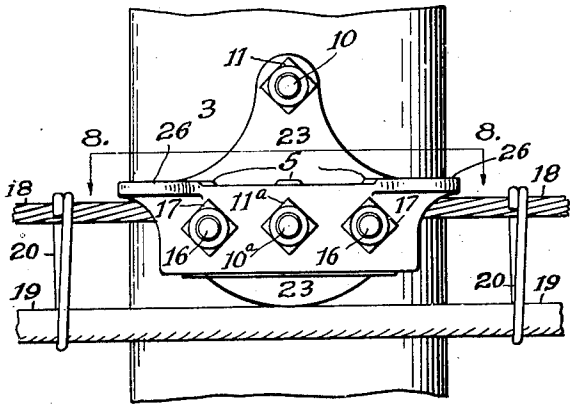


FIG. 7.

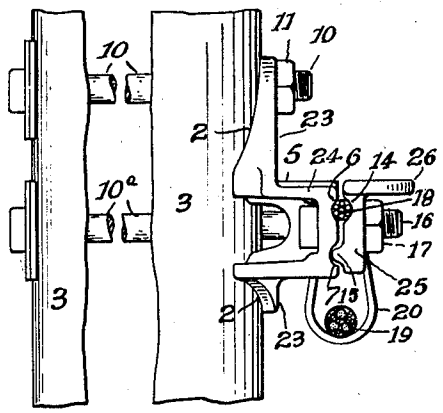


FIG. 8.

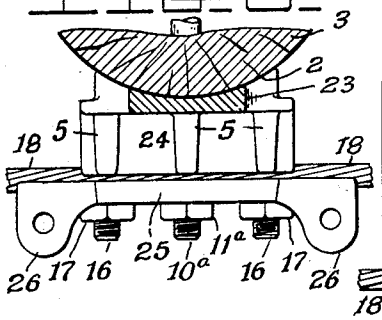


FIG. 9.

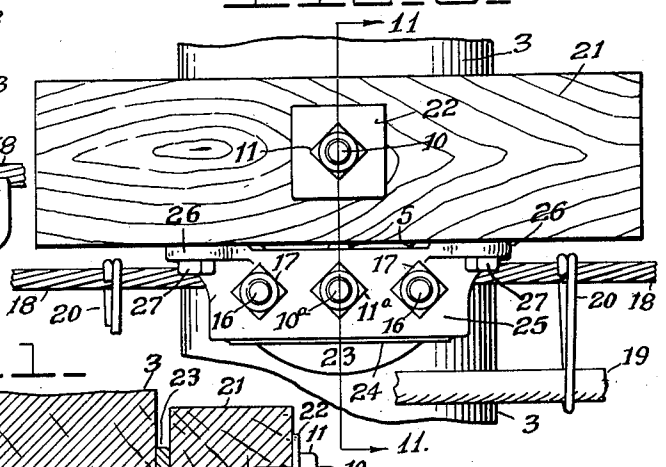


FIG. 11.

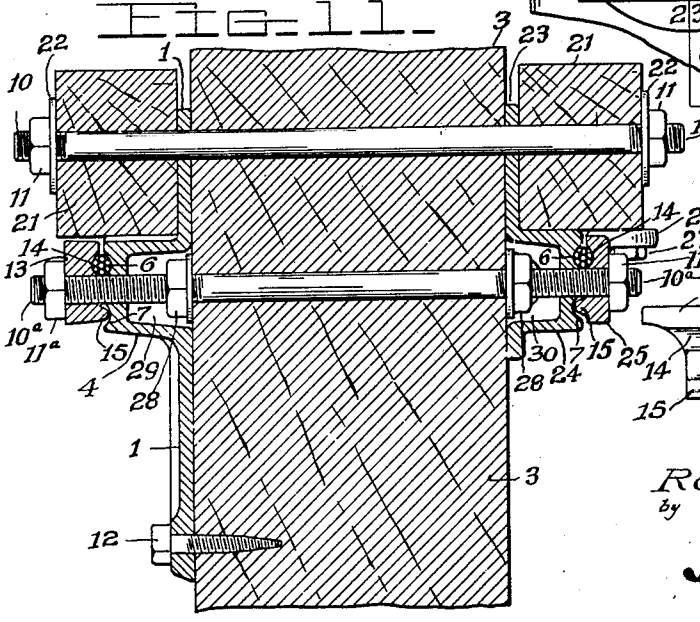
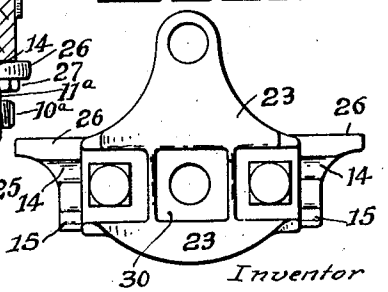


FIG. 10.



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UNITED STATES PATENT OFFICE

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POLE ATTACHMENT FOR ELECTRIC CONDUCTORS

Application filed June 13, 1928. Serial No. 285,192.

This invention relates to pole fixtures but more particularly has reference to fixtures of this description for carrying electrical cables in connection with which a messenger cable is utilized from which is suspended the electric cable.

In devices of this description as heretofore used it has been possible for a lineman to stand on the messenger cable, and as this is always grounded, serious results and frequently fatalities have followed when the lineman has been working on a live cable carried by the pole above the messenger cable.

Unless there is some adequate protection in the way of insulation on which a lineman can stand, the law provided that a live wire must be spaced from the lower messenger cable by at least six feet because at this distance a lineman could not conveniently stand on either the messenger cable, or the fixture that clamped it, and work on a live cable above.

Insulation blocks, such as pieces of wood, have been secured above the messenger cable, but these blocks have been spaced from the messenger cable a distance sufficient to permit the lineman to readily stand on such cable, and although this is the result of extreme carelessness, nevertheless linemen take great chances, and while they cannot work to advantage on an upper live wire while standing on a lower messenger cable, in some way, either by direct contact or contact through the use of tools, serious accidents have happened, owing, as above stated, to downright carelessness.

It is the object of the present invention to so equip the metal fixture which carries the messenger cable that it is an utter impossibility for the lineman to stand thereon, and furthermore to provide such a fixture as will enable the latter or one closely resembling it, to be installed on the opposite side of the pole for the purpose of carrying another messenger cable from which may be supported any sort of an electric cable, whether of high tension or not.

The accompanying drawings illustrate this invention in its preferred embodiment, such as has been successfully used, and in these drawings

Figure 1 is a front elevation showing the improved fixture in position on a pole the latter being broken away.

Figure 2 is a side elevation of the construction shown in Figure 1 with the pole broken away.

Figure 3 is a section at the line 3—3 of Figure 1.

Figure 4 is a view similar to Figure 1 but showing a guard preferably made of wood secured to the fixture.

Figure 5 is a detail rear view of the fixture shown at Figure 1.

Figure 6 is a view similar to Figure 1 but showing a modified form of the fixture.

Figure 7 is a side elevation of the structure shown at Figure 6.

Figure 8 is a section at the line 8—8 of Figure 6.

Figure 9 is a view similar to Figure 6 but showing the wooden guard mounted on the fixture.

Figure 10 is a detail rear view of the fixture shown at Figure 6, and

Figure 11 is a section which is taken at the line 11—11 of Figure 4, and also 11—11 of Figure 9, and showing particularly the installation of the improved fixtures on opposite sides of the pole one of the fixtures being that shown at Figure 1 while the other is that shown at Figure 6.

Similar numerals of reference denote like parts in the several figures of the drawing.

The fixture comprises a base portion 1 whose rear face is curved as seen at 2 so as to approximately fit the pole 3, and from the front face of this base portion extends a horizontal ledge 4 which is elongated and has raised seats 5, the outer face of this ledge 4 having formed therein parallel horizontally extending grooves 6, 7.

This base portion 1 is perforated at its upper and lower ends as seen at 8, 9, a bolt 10 being passed through the perforation 8 and through the pole, with a nut 11 driven on the free end of the bolt, while a lag screw 12 is driven through the perforation 9 in the pole, the object of this bolt and lag screw being, of course, to secure the base of the fixture to the pole.

13 is a front or clamping plate which is substantially of the same length as the ledge 4, and throughout the inner face of this plate extends a groove 14 that corresponds with the groove 6 while a rib 15 parallel with the groove 14 extends from the inner face of this plate, and when the latter is applied to the outer face of the ledge 4 the grooves 6 and 14 will be opposite each other while the rib 15 will enter the groove 7.

In order to clamp the plate 13 to the ledge, bolts 16 are passed through suitable openings in the ends of the ledge and plate, and nuts 17 driven on the free ends of these bolts, and a bolt 10^a extends through the pole and the central portion of the ledge and plate and a nut 11^a is driven on the free end of this bolt against the face of the plate so as to assist in holding the fixture firmly to the pole, and also to aid in clamping the plate to the ledge. 18 is a messenger cable that is clamped by the plate 13 to the ledge 4, being embraced by the grooves 6 and 14, and the extension of the rib 15 within the groove 7 tends to steady and strengthen the clamping effect.

From the messenger 18 is suspended the electric cable 19 by means of the usual metal stirrups 20.

It will be observed, on reference to Figures 2 and 4, that the seats 5 are in a plane above that of the top edge of the clamping plate 13, and therefore an elongated bar 21 of wood or other suitable insulating material placed upon these seats, so as to be supported lengthwise of the ledge, will not bind against the plate 13.

This bar 21 is perforated and the bolt 10 extends through the bar and is usually provided with an ordinary washer 22, the nut 11 being then driven against the washer, so that the bar will be firmly held in its position on the ledge 4.

It will be observed, by reference to Figure 4, that when this bar 21 is in position, as above described, the plane of its bottom surface is so close to the messenger cable, that it is impossible for a lineman to stand on the cable or to get any support therefrom for his feet.

Referring to Figures 6, 7, 8, 9, and 10, a slight modification of the construction heretofore described is shown and will now be described.

The base portion of this modified structure is denoted by the numeral 23 and the rear of this base is curved to fit the pole, and from the face of this base 23 extends a narrow ledge 24 equipped with the raised seats 5 heretofore described with respect to the base 1, this base 23 being secured to the pole 3 by the bolts 10 and 10^a, just as in the instance of the construction shown at Figure 1, the nut 11 being driven on the end of the bolt 10, the bolt 10^a extending through the pole, the ledge and the clamping plate, hereafter described, and being secured precisely in the manner heretofore described and as will presently be more particularly pointed out.

A clamping plate 25 is formed at its ends with outwardly horizontally extending ears 26 that are on the same level with the seats 5, and the outer face of the ledge 24 is formed with the grooves 6, 7, as and for the purpose hereinbefore described with respect to the ledge 4, while the inner face of the plate 25 is formed with the groove 14 and rib 15 heretofore noted.

The bolt 10^a extends through the pole, the ledge 24, and the plates 25, and the nut 11^a that is driven on the end of this bolt against the plate 25 aids in securing the fixture to the pole and also in binding the clamping plate to the ledge, the bolts 16 extending through the ledge and clamping plate with nuts 17 driven on their ends against the plate to complete the clamping operation, just as in the instance of the structure shown at Figure 1.

There is no substantial difference between the structure shown at Figures 1 to 5 inclusive, and the structure shown at Figures 6 to 10 inclusive, except that in the latter structure the clamping plate functions to partly support the wooden bar 21 so that ordinary lag screws 27 may be driven through perforations in the ears 26 into the bottom of the wooden bar in order to assist in holding the same in place.

But, in installing two sets of lines on the same pole, the same bolts may be employed passing through the pole, for the purpose of confining the bases of the fixtures and the wooden bars in position, and for securing the clamping plates, and with special reference to Figure 11, this will be obvious.

But in the instance of the lower bolt 10^a, the latter is first clamped firmly to the pole by means of nuts 28 driven on the ends of the bolt, and the base portions 1 and 23 are recessed as shown at 29 and 30 in order to house these nuts so that the latter will not interfere with the bases.

In both constructions, the wooden bar 21 is so close to the messenger cable 18 that it is impossible for a lineman to find any support for his feet on such cable, and the fixtures described therefore provide means for safely guarding a lineman against accident due to his own carelessness.

Also, this fixture renders it unnecessary to cut a gain in the pole for attaching a special guard arm as is the prevailing custom at the present time.

What is claimed is:—

1. The hereindescribed fixture for securement to a pole comprising a base having a ledge extending horizontally therefrom with horizontal parallel spaced grooves in the outer face of said ledge, a clamping plate, and means for securing said plate to the ledge and to the pole with a messenger cable firmly

held between said plate and ledge, said ledge having raised seats whose horizontal plane is in close proximity to the horizontal plane of the messenger cable and above the upper edge of the clamping plate, and an insulating bar supported by said seats and secured thereto.

2. A construction as in claim 1 in which the inner face of the clamping plate has an upper groove that is complementary to the upper groove of the ledge for the purpose of embracing the messenger cable, said plate being further provided with a rib which engages within the lower groove in the ledge.

In testimony whereof I affix my signature hereto.

ROLLAND G. WILLIAMS.