

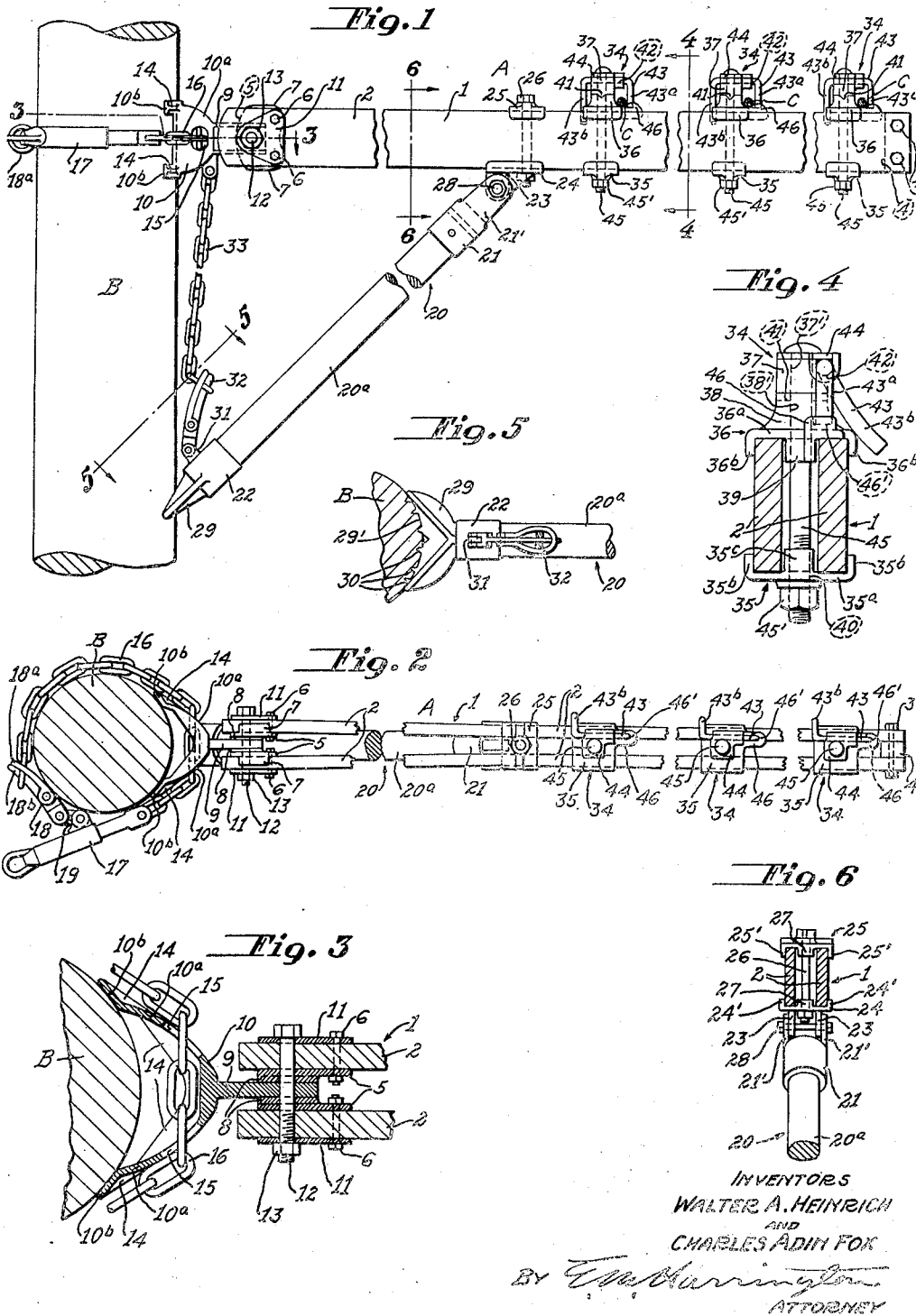
Aug. 10, 1937.

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2,089,370

CONDUCTOR HOLDER FOR SIDEARMS AND THE LIKE

Filed June 24, 1935



UNITED STATES PATENT OFFICE

2,089,370

CONDUCTOR HOLDER FOR SIDEARMS AND
THE LIKEWalter A. Heinrich and Charles Adin Fox, St.
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Application June 24, 1935, Serial No. 28,062

2 Claims. (Cl. 248—65)

This invention relates generally to wire sup-
porting arms adapted for temporary association
with poles for supporting electrical conductors,
and more specifically to an improved conductor
5 holding device adapted for association with such
a temporary wire supporting arm, the predom-
inant object of the invention being to provide a
wire holding device which is of such improved
construction and arrangement that it performs its
10 intended function in a highly efficient manner.

In the drawing,

Fig. 1 is a side elevation of a side arm attached
to a fragment of a pole, parts of the side arm be-
ing broken away to permit the view to be made
15 on a larger scale, and the side arm having a
plurality of improved conductor holders as-
sociated therewith;

Fig. 2 is a plan view of the structure shown in
Fig. 1, the pole being shown in sections;

20 Fig. 3 is an enlarged section on line 3—3 of
Fig. 1;

Fig. 4 is an enlarged section on line 4—4 of
Fig. 1;

Fig. 5 is a section on line 5—5 of Fig. 1; and
25 Fig. 6 is a section on line 6—6 of Fig. 1.

In the drawing, wherein is shown for the pur-
pose of illustration, merely, one embodiment of
the invention, A designates a side arm generally
and B designates a pole to which said arm is
30 attached. The arm 1 of the said arm is com-
prised of a pair of more or less parallel wood
bars 2, said bars being secured together at their
outer ends by bolts 3 which pass through said
bars and through a spacer 4 interposed between
35 the wood bars.

At the inner end portion of the arm 1, the
wood bars 2 diverge slightly as shown most clearly
in Fig. 2, and at the extreme inner end of the
arm the bars 2 are provided at their inner faces
40 with hinge members 5. Each hinge member com-
prises a plate which is secured by means of bolts
6 to the inner face of the associated bar and said
plate is provided at its top and bottom with
laterally extended flange portions 7 which over-
45 lap the top and bottom faces of the bar in close
contact therewith. The plates of the hinge mem-
bers 5 are provided with inwardly extending por-
tions 8, the inner faces of which are spaced apart
from each other, as shown in Figs. 2 and 3, to re-
50 ceive an extension 9 formed as a saddle element
10, to be hereinafter described in detail. Also
arranged in contact with the outer faces of the
bars 2, are plates 11 which are secured in place
by the bolts 6 already referred to herein. In
55 order to pivotally or hingedly secure the arm 1 to

the saddle element 10, a bolt 12 is employed, this
bolt being extended through apertures formed
through the plates 11, the bars 2, the hinge mem-
bers 5 and the extension 9, as shown most clearly
5 in Fig. 3, and said bolt having a nut 13 associated
therewith.

The saddle element 10 is preferably, though
not necessarily, in the form of a casting which
is shaped to engage the curved face of the pole
B, as shown in Fig. 3; that is to say, said saddle
10 element includes outwardly curved leg portions
10^a at the ends of which portions 10^b are pro-
vided, which are shaped to conform to the curva-
ture of the face of the pole and which contact
15 with said face of the pole. The saddle element 10
is provided with the required strength and
rigidity by the provision of strengthening ribs 14.
When viewed in side elevation, the saddle element
is shaped as shown in Fig. 1. This view shows
20 that the pole-contacting portions 10^b are located
in spaced relation at the top and bottom of the
saddle element, there being a pair of such spaced
pole-contacting portions 10^b at each side of the
saddle element.

Formed through the leg portions 10^a of the
25 saddle element 10 is a pair of almost circular
openings 15 through which a chain 16 is ex-
tended. The chain 16 is a part of a pole em-
bracing assembly which includes, besides the
chain, a chain tightener 17 which is attached to
30 one end of the chain and a buckle 18 which is
connected to the chain tightener by a link 19
and which serves to connect the chain tightener
to the opposite end of the chain. When the side
arm is to be attached to a pole, the saddle ele-
35 ment 10 is arranged in position with respect to
the pole and the chain 16 is passed around the
pole and is connected to the chain tightener 17
through the instrumentality of the buckle 18, said
buckle including a loop portion 18^a through
40 which the chain is passed and a pivotally sup-
ported prong 18^b which is extended through a
link of the chain for securing the buckle to the
chain. When the buckle has been secured to
the chain as described, the chain tightener 17 is
45 operated to draw the pole-embracing assembly
tightly about the pole and thereby securely fix
the saddle element 10 to the pole.

The side arm includes a strut 20 which pref-
erably comprises an elongated wood pole 20^a
50 having a member 21 at one end and a pole-con-
tacting member 22 at the opposite end. The
member 21 of the strut structure is provided with
a pair of spaced ears 21' (see Fig. 6), between
which a pair of downwardly extending ears 23 55

forming an element 24 is extended. The element 24 is arranged in contact with the bottom faces of the bars 2 of the arm 1, said element comprising a bottom plate from which the ears 23 extend, and upwardly extended, oppositely disposed flanges 24' which contact with the outer faces of the bars 2 of the arm 1. At the top of the arm 1 a companion piece 25 to the element 24 is arranged, said piece 25 including a plate portion which contacts with the top faces of the bars 2 of the arm 1, and downwardly extended flanges 25' which contact with the outer faces of said bars 2. The element 24 and its companion piece 25 are securely fixed to the arm 1 by a bolt 26 which passes through bolt-receiving apertures formed through said element and its companion piece and through the space between the bars 2 of the arm 1, said element and its companion piece being provided with cylindrical extensions 27 through which portions of said bolt-receiving apertures are formed. The strut 20 is pivotally attached to the arm 1 by a bolt 28 which is extended through apertures formed through the ears 21' of the member 21 of the strut structure and the ears 23 of element 24.

The member 22 of the strut structure 20 is provided with a portion 29 of increased width which has a curved pole-contacting face 29', said pole-contacting face preferably being provided with sharp prongs 30 adapted to bite into the pole. Also the member 22 is provided with an ear 31 to which is pivotally attached a buckle 32, similar to the buckle 18 already described herein. This buckle is adapted to releasably engage an end of a chain 33, the opposite end of said chain being attached to ears formed on the saddle element 10. By connecting the free end of the strut structure to the saddle element by the use of the chain 33 and the buckle 32, slippage of the pole-contacting end of the strut relative to the pole B is prevented.

Spaced longitudinally of the arm 1 is a plurality of the improved conductor holders 34. Each of the conductor holders includes as parts thereof an element 35 which is arranged at the lower face of the arm 1, and a pair of associated elements 36 and 37 which are arranged in assembled relation at the top face of said arm 1. The element 35 comprises a plate portion 35^a which contacts with the bottom faces of the bars 2 of the arm 1, which plate portion is provided with flange portions 35^b that contact with the outer faces of said bars 2 (Fig. 4). The element 36 includes a plate portion 36^a which contacts with the top faces of the bars 2 of the arm 1, and this plate portion is provided at opposite sides thereof with flanges 36^b which contact with the outer faces of the bars 2. Projected upwardly from the plate portion 36^a of the element 36 when the arm 1 is in a horizontal position, is an extension 38 through which a bolt-receiving opening 38' is formed, said bolt opening being continued through the plate portion 36^a and through a portion 39 which is extended from said plate portion in a position between the bars 2 of the arm 1. The element 35 is provided with a like bolt-receiving opening 40 which is extended through the plate portion 35^a of said element and through a portion 35^c which is extended from said plate portion 35^a in position between the bars 2 of arm 1.

The lower face of the element 37 is arranged in contact with the top face of the extension 38 of the element 36, and said element 37 has a bolt-receiving opening 37' formed therein. Also

the top face of the extension 38 is provided with V-shaped notches at opposite sides of the bolt-receiving opening 37' thereof which receives correspondingly shaped lugs 41 extended from the lower face of the element 37 so as to prevent rotary movement of the element 37 relative to the element 36. The element 37 is provided with a seat 42 in which is supported for rotary movement a wire-holding member 43. The seat is elongated, being extended from one side of the element 37 to the opposite side thereof, and said seat is closed at its top by a plate 44 so as to rotatably confine a portion of the associated wire-holding member 43. The plate 44, elements 36 and 37, and the element 35 are held in their assembled relation by a bolt 45 which passes through a bolt-receiving opening formed through the plate 44 and through the bolt-receiving openings of the elements 37, 36, and 35, said bolt having a nut 45' mounted thereon at its lower end.

The wire-holding member 43 is in the form of an over-balanced locking bar of substantially U-shaped formation, there being an intermediate portion which is seated in the seat 42 of the element 37 and downwardly extended portions 43^a and 43^b at opposite ends of said intermediate portion. When the arm 1 is disposed horizontally and the wire-holding member is in its wire-holding position, the portion 43^a hangs vertically as shown in Fig. 4, the longer over-balancing portion 43^b being bent so that it extends downwardly and outwardly and contacts with a side edge of the plate portion 36^a of the element 36. The lower end of the portion 43^a of the wire-holding member contacts with a stop 46 which is extended outwardly and upwardly from the element 36, said stop being provided with a curved outer portion provided with a seat 46', which is adapted to receive the lower end portion of the portion 43^a of the wire-holding element, so as to lock said member in its wire-holding position.

When the side arm is to be placed in use it is drawn up the pole in a collapsed condition; that is to say, the arm 1 moves upwardly in a vertical position and the strut 20 hangs parallel with the arm 1, the buckle 32 being detached from the chain and said chain hanging loose. When the elevation at which the side arm is to be positioned is reached, the saddle element is positioned relative to the pole and the pole-embracing assembly is arranged about the pole and is tightened thereabout in the manner already explained herein. The arm 1 is then moved to the desired position and the lower end of the strut is caused to engage the pole, after which the buckle 32 and the chain 33 are engaged with each other. The side arm is then ready to receive the electrical conductors which it is to temporarily support, and the conductors are associated with the side arm by engaging the portions 43^b of the wire-holding members with an insulated hook stick so as to move the portions 43^a of said wire-holding members upwardly. The conductors C are then moved into place with respect to the wire-holding members and the portions 43^a are permitted to drop downwardly into contact with the stops 46 to hold the conductors in position, as shown in Fig. 1. It is important to note that the intermediate portions of the U-shaped wire-holding members are capable of moving longitudinally slightly within the seats 42. Thus if the conductors exert upward pressure against the portions 43^a of the wire-holding members, the lower ends of said members are moved into the seats 46' at the outer ends of the stops 46, so as to positively lock the

wire-holding member and thereby prevent accidental release of the conductors.

We claim:

1. A wire-holding device adapted for use with
5 an arm arranged for association with a pole, comprising a support fixed to said arm, and a wire-holding bar supported by said support for arcuate, swinging movement in a vertical plane and having a portion movable into position relative
10 to said support so as to confine a wire between a portion of the support and said portion of said wire-holding bar, said bar including a portion which overbalances same so as to maintain the wire-holding bar in the wire-confining position.
15 2. A wire-holding device adapted for use with

an arm arranged for association with a pole, comprising a support fixed to said arm, and a substantially U-shaped wire-holding bar supported by said support for arcuate, swinging
5 movement in a vertical plane and having a portion movable into position relative to said support so as to confine a wire between a portion of the support and said portion of said wire-holding bar, said bar including an angularly extended portion which overbalances same so as to
10 maintain the wire-holding bar in the wire-confining position.

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