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F. C. LAVARACK ET AL

BOOTLEG

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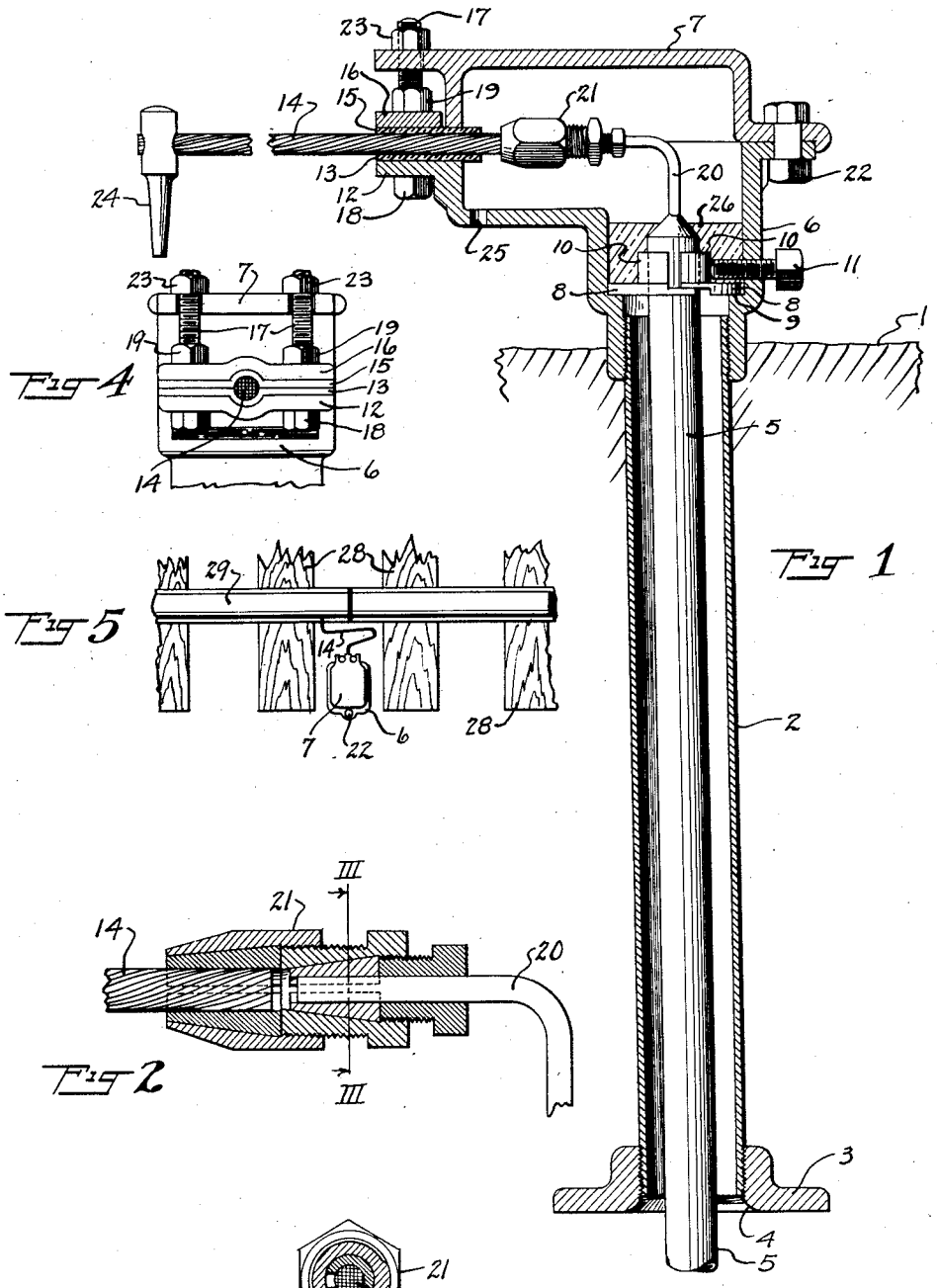


Fig 1

Fig 4

Fig 5

Fig 2

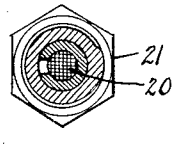


Fig 3

INVENTORS
William H. B. Lavarack
Frederick C. Lavarack
BY
Lyman E. Dodge
ATTORNEY

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UNITED STATES PATENT OFFICE.

FREDERICK C. LAVARACK, OF MONTCLAIR, AND WILLIAM H. B. LAVARACK, OF NORWOOD BOROUGH, NEW JERSEY.

BOOTLEG.

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This invention relates to railways, more especially to railway signalling, and particularly to a device, known as a "bootleg" used therein.

As is well understood by those skilled in the railway signalling art, electrical conductors are attached to the rails at intervals. These conductors of necessity must be either on or in the ground. In general they are placed in what is called "trunking", which is merely a wooden conduit. Of late many of these conductors have been of the form known as "parkway cable". These cables are buried in the ground without protection, such as trunking, and emerge from the ground close to the point on the rail at which they are to be connected. Upon emerging from the ground the wire or conductor within the cable is laid bare and connected to some form of bond wire and pin for connection to the rail. Laying bare the conductor of the cable renders the cable subject to the entrance of moisture and water which might destroy it, therefore, this end must be protected.

The principal object of applicants' invention is to furnish a means for supporting, protecting and connecting to a parkway or other cable or wire where it emerges from the ground.

Other objects and advantages will appear as the description of the particular physical embodiment selected to illustrate the invention progresses and the novel features of the invention will be particularly pointed out in the appended claims.

In describing the invention in detail and the particular physical embodiment selected to illustrate the invention reference is had to the accompanying drawing, wherein we have illustrated a particular preferred physical embodiment of our invention, and wherein like characters of reference designate corresponding parts throughout the several views, and in which:

Figure 1 is a cross sectional view of our improved bootleg; Figure 2, is a cross sectional view of a well known form of connector used in our invention; Figure 3, is a cross sectional view on the plane indicated by line III—III of Figure 2, viewed in the direction as indicated by the arrows at the ends of the line; Figure 4, is a fragmentary side view of Figure 1; Figure 5, is a schematic view illustrating the positioning of our invention with relation to a rail.

In Figure 1, the ground line is designated by 1. Below this ground line for a desired distance extends the conduit 2, preferably a section of standard iron or steel pipe. At the lower end of the pipe a flange 3 is threaded thereon, which stabilizes the pipe and presents it either lowering or raising. This flange is chamfered at the edge 4 so that it will not injure the cable 5.

On the upper end of the pipe 2 is threaded the lower portion or base 6 of a two part box, the upper portion or top being designated 7.

The parkway or other cable 5 is passed through pipe 2 and a short way into base 6, at least sufficiently so that it may be suitably attached to base 6.

The attaching or supporting means for the parkway cable consists of a two part annulus. Each part of this annulus includes a supporting rim, as 8, resting on a shoulder 9 formed on the base and an upstanding protuberance 10 bearing against and partially surrounding the cable 5. In order to tighten the two part annulus on the cable a set screw 11 is provided having its end bearing against the protuberance 10. By suitable manipulation of the set screw 11 the annulus may be made to embrace the cable with more or less firmness and so keep it in position as shown in Figure 1.

The base 6, has at 12 an outstanding platform. Upon this platform is placed a layer of somewhat flexible insulating material 13. On top of insulating material 13 is positioned bond wire or cable 14. Above wire 14 is placed another slab of insulating material 15, identical with 13 and above the insulating material 15 is placed compressor plate 16. These parts are all firmly bound together by bolts, as 17, one on each side of the wire 14. The head 18 of the bolt resting against the underside of platform 12 and a nut 19, being screwed down onto compressor plate 16. By means of the nut 19 the compression may be made such that wire 14 will not move.

The wire 14 and wire 20 of the cable are connected as shown by the connector 21. This is a standard form of connector of the split-cone type and is illustrated in Figures 2 and 3 and needs no description.

A cover or top 7 for the box is fastened

thereto by bolts 22 and 17. As shown by Figure 4, the bolts 17 pass through slots on top 7 so that it is merely necessary to remove bolt 22 in order to take off top 7. It should also be noticed that a movement of nut 23 has no effect upon nut 19 and so the compression of wire 14.

The wire 14 bears on its outer end the pin 24 which is driven into a cavity in the rail.

A drip hole 25 is provided to allow any water collecting within the box to flow out.

If desired the top end of the pipe 2 may be sealed around cable 5 with any of the well known sealing compounds used for like situations, as indicated by 26.

It should be observed that any strain placed upon wire 14 is not transmitted to cable 20, because wire 14 is so firmly held that such strain is obviated. If however wire 14 should move independently of slabs 13 and 15 and 21 should move toward the left as viewed in Figure 1, the wire 14 would not be grounded because insulations 13 and 15 extend to the right from the wall 27 sufficiently to contact with 21, before 21 contacts with the wall 27.

In Figure 5 are shown ties, as 28 and a rail 29 to which the wire 14 is connected. This view shows in general the arangement of our bootleg in relation to the rail, but is illustrative only and does not preclude us from adopting other arrangements.

Although we have particularly described the construction of one physical embodiment of our invention, and explained the operation and principle thereof, nevertheless, we desire to have it understood that the form selected is merely illustrative, but does not exhaust the possible physical embodiments of the idea of means underlying our invention.

What we claim as new and desire to secure by Letters Patent of the United States is:

1. In a bootleg, in combination; a platform formed with orifices; a strip of insulating material on the platform; a bond wire resting on the insulating material; a second strip of insulating material above and resting on the bondwire; a metallic strip resting on the second strip of insulating material and bolts passing through the platform orifices and the strips and binding the whole together; a box to which the platform is attached and formed with a cover; a cable having a bared end within the box; means coacting with the said bolts to retain the cover in place and means for connecting the bond wire and the cable.

2. In a bootleg; in combination; a circular conduit; a two part box at the one end thereof, one part of said box being screw fastened to the conduit and formed with a shoulder, the other part of the box being bolted to the first mentioned part; a cable extending through the conduit and into the box and the conductor therein bared within the box; a two part annulus surrounding the cable within the box and resting on the said shoulder; a set screw borne by the box and bearing against the annulus whereby the cable may be firmly held; a bond wire extending in the box; and means firmly insulatingly holding the bond wire to the box, and means for connecting the bond wire and the bared cables.

FREDERICK C. LAVARACK.
WILLIAM H. B. LAVARACK.