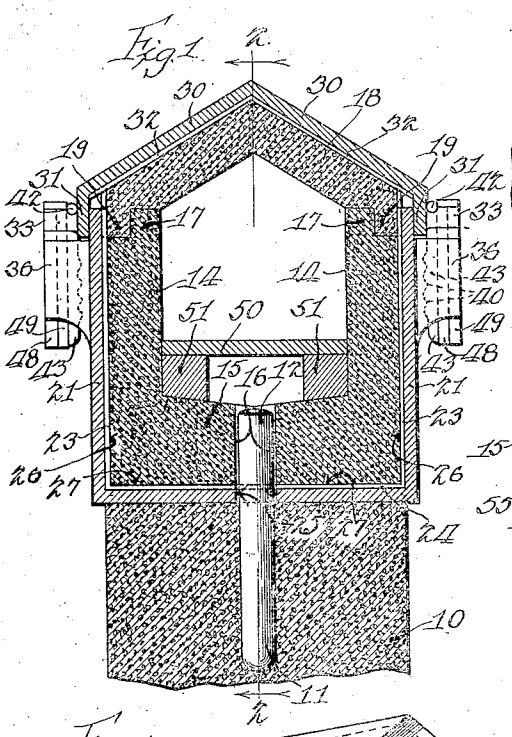
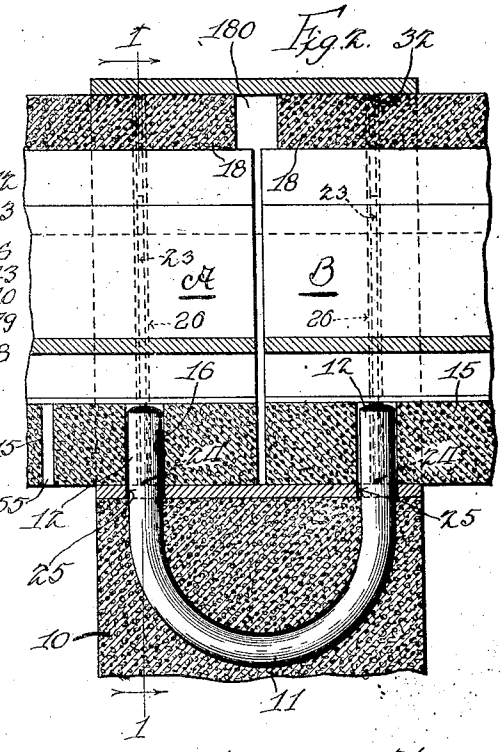
Feb. 15, 1927. 1,617,625

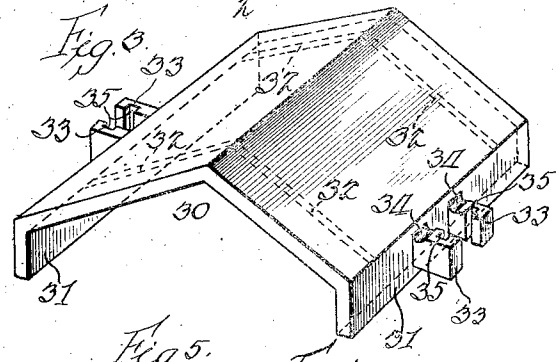
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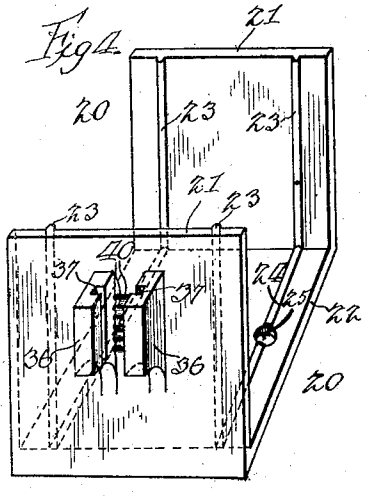
TRUNKING CONDUIT CONSTRUCTION

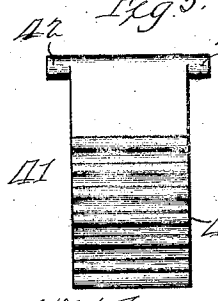
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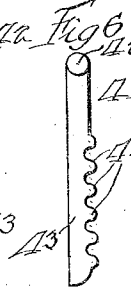


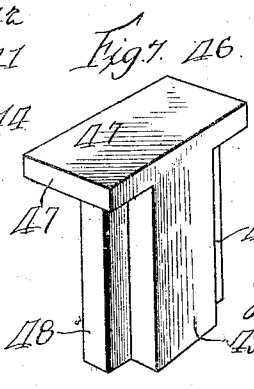












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UNITED STATES PATENT OFFICE.

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TRUNKING-CONDUIT CONSTRUCTION.

Application filed August 5, 1920. Serial No. 401,394.

My invention relates to conduits such as are positioned along the right-of-way of railroads for carrying electric wires for operating switches, signals, etc. These conduits are usually called "trunking boxes" or simply "trunking."

It is old practice to make a sectional channel-like trunking box trough section of wood with a sectional board cover nailed upon the top. It has been suggested also to make the sectional channel-like troughs of concrete and to provide sectional concrete cover members or "capping" held on the trough sections by a reduced portion extending downward between the side walls. Such trunking has been carried on wooden or concrete posts along the track, and the contiguous sections have been laid so as to abut each other end to end. Numerous objections and difficulties have been experienced in the use of both the wooden and the concrete construction as heretofore employed.

The principal objects of the present improvements are to provide a trunking conduit device which is peculiarly strong and durable, one which may easily and readily be intalled in service, and, importantly, one which when installed will be substantially water-tight and will maintain the contents in their desired substantially dry condition. An important object is to provide a combination in which the capping is securely held in position but which may be readily removed for such purposes as insertion, removal or inspection of wires. Other objects and advantages will appear hereinafter.

In the accompanying drawings, which form a part of this specification,

Figure 1 is a transverse vertical sectional view through the device at a pedestal, showing one arrangement, as on the line 1—1 of Fig. 2;

Fig. 2 is a longitudinal vertical section, as on the line 2—2 of Fig. 1, showing abutting end portions of contiguous sections of the trunking device;

Fig. 3 is a perspective of the shield device weather-obstructing cover for the capping at the joint;

Fig. 4 is a perspective of the body part of the shield device.

Fig. 5 is a side elevation and Fig. 6 is an edge elevation, on an enlarged scale, of a locking member shown in Fig. 1, and

Fig. 7 is a perspective, on an enlarged scale, of a retaining member which is part of the locking device shown in Fig. 1.

The pedestal or base 10 is of concrete and has embedded therein the U-shaped piece 11 of round iron which, in my practice, is about three-eighths of an inch in diameter and provides the studs 12 projecting vertically upward, spaced apart in the longitudinal direction of the trunking, and which serve to lock the trunking and associated parts against lateral and longitudinal movement on the base.

My improved trunking includes an open-top trough or channel comprising side walls 14 and a bottom wall 15 of concrete. It is made in sections which may be of any convenient length and are ordinarily about eight feet long. Two such sections A and B are fragmentarily shown as substantially abutting each other in Fig. 2. Each section is provided near its end with a cored hole 16 adapted to receive one of the studs 12 as shown. The holes 16 are slightly larger in diameter than are the studs 12 in order to take care of expansion and contraction of the sections and to compensate for slight inequalities in the construction or the positioning of the pedestal parts in practice. Each side wall 14 is provided at its upper edge with an inner longitudinal ridge-like projection 17.

My improved capping 18 consists of a concrete section which in practice will ordinarily be of nearly the same length as is the trunking trough. It has two upwardly tapering walls terminating in a central ridge, which construction at once makes an effective watershed and, importantly, prevents railroad employes or trespassers from walking upon the device, a practice which is quite common and which frequently results in injury. The concrete capping 18 is provided with the downwardly extending longitudinal outer ridge-like projections 19 which interfit with and encompass the projections 17 respectively, thus forming a rabbet-joint between the capping and the side walls of the trough adapted to hold the capping securely and at the same time prevent rain

and other moisture from gaining entrance to the hollow interior of the device.

Surrounding the side and bottom walls of the trunking at each joint between contiguous sections such as A and B I provide the open-top metallic yoke 20 having plate-like side walls 21 and a plate-like bottom wall 22, with integral vertical inner ribs 23 on the side walls and horizontal inner ribs 24 on the bottom wall and having a pair of spaced-apart holes 25 in the bottom wall through which the studs 12 project. Each section of trunking A and B is provided with vertical and horizontal recesses 26 and 27 positioned so as to receive the ribs 23 and 24 respectively. The recesses 26 and 27 are somewhat wider in the longitudinal directions of the trunking than are the ribs 23 and 24 to take care of expansion and slight variations in construction. In my practice the yoke 20 is made of cast iron.

I also provide a metallic cast iron cover 30 shaped so as to fit upon the top surface of the capping 18 and provided with downwardly extending side flanges 31 which respectively overlap the upper portions of the side walls 21 of the yoke 20, thus forming a weather-lap or ship-lap joint between these metallic yoke and cover parts. The under side of the metallic cover 30 has projections in the form of ribs 32 and the concrete cover has corresponding recesses with which the projections 32 interfit, thus providing an interlock between the concrete capping and the metallic cover part 30 against relative longitudinal movement.

It will be noted that the vertical ribs 23 extend to the top of the side walls 21 of the yoke. The extensions 19 of the capping have vertical grooves adapted to receive the upper ends of the ribs 21. The capping may therefore be properly positioned upon the trough sections before the cover member 30 is applied and an interlock is thus provided between the capping and the yoke.

In this connection it is pointed out that the capping sections 18 are somewhat shorter than the trough sections to provide an opening 180 (Fig. 2) into which the fingers of the workman may project in positioning or removing the concrete cover thus avoiding the necessity of handles heretofore provided at the sides of the capping and enabling two men to position or remove this member instead of four as in the older practice.

From Fig. 3 it will be well observed that on the outer surface of each of the depending flanges 31 there is a pair of outwardly projecting spaced apart oppositely disposed integral locking members 33, each of which has a trunnion bearing at 34 and also a vertically disposed recess 35. From Figs. 1 and 4 it will be seen that each side wall 21 of the yoke 20 is provided with a similar pair of oppositely disposed outwardly extending integral projections 36 having the vertically disposed opposite and facing recesses 37. When the cover 30 is in its operative position, as shown in Fig. 1, each vertical recess 35 is in alignment with a recess 37.

For locking the cover 30 and yoke 20 together I provide first a plurality of horizontally disposed corrugations 40 on the thickened side wall 21 between the projections 36. There is next provided a plate-like locking member 41 having the laterally extending trunnions 42 and the depending body 43, the latter having a plurality of ridges 44 adapted to interfit with the grooves between the corrugations 40 as well seen in Fig. 1. The body 43 of the locking member 41 has slightly less width than the horizontal distance between the projections 36 (Fig. 4) and also between the projections 33 (Fig. 3) whereby when the trunnions 42 are in the trunnion seats 34 (Fig. 3) the body 43 may swing inwardly or outwardly between the oppositely disposed projections mentioned and thereby caused to engage the projections 40 as illustrated in Fig. 1 or be moved out of such locking engagement.

In order to hold the member 41 in its locking position I provide what I may call the follower block 46 (Fig. 7) having the head 47 adapted to rest upon the top surface of the projections 33 and having the downwardly and laterally extending flanges 48 adapted to fit for easy sliding movement into the vertical recesses 35 and 37 of the projections 33 and 36 respectively, the thickened middle portion 49 of this block 46 occupying the space between the outer portions of the projections 33 on the cover and the projections 36 on the shield. The follower block parts 48 and 49 may be struck upward lightly with a hammer to remove this member should it become rusted in place, and the locking member 43 may readily be pried loose should it similarly become tightly bound.

According to this construction it is apparent that in assembling the device the yoke 20 may be set upon the pedestal 10 and thereupon the end portions of the trough sections A and B of the trunking may be lowered between the side walls of the member 20, the studs 12 holding the troughs and the yoke in position, and that thereupon the capping sections may be laid upon the trough sections as shown in Fig. 2, and that thereupon the metallic cover 31 may be placed upon the capping and be securely locked for easy removability by the locking device including the members 41 and 46. The several sections are thus not only securely held together and upon the pedestal but they are so held by means which effectively protect the interior of the trunking from the weather.

Within the hollow interior I provide a running frame-work of wood comprising the

board 50 and the lateral supports 51, thus forming a wooden bottom upon which the wires may rest. Should water occur within the hollow interior, as by condensation, it readily drains away through cored holes as 55, Fig. 2, provided at intervals in each bottom wall of the trough.

While I have illustrated and described a preferred embodiment of these improvements reference should be had to the appended claims to determine the scope of the invention herein set forth.

I claim:

1. In a trunking conduit device, the combination of a pedestal, two substantially horizontal trough sections meeting substantially end to end above the pedestal, capping upon the trough sections, means forming an open-top yoke closely fitting upon and outside of the trough sections and overlying the joint between the two sections at the sides and bottom thereof, said yoke having projections and the sections having interfitting recesses for holding the sections in readily removable relation to the yoke, a cover overlying the capping above said joint, means for holding the cover readily removably upon the yoke, and means for holding the yoke upon the pedestal.

2. In a trunking conduit device, the combination of a pedestal, two trough sections meeting end to end above the pedestal, each trough section having vertical side walls and a horizontal bottom wall and being open at the top, a capping section on each trough section, the capping sections having ends close together at the abutting ends of the trough sections, the capping sections interfitting respectively with the trough sections with a substantially waterproof joint, the capping sections terminating sufficiently short of each other to provide a hand opening between them, means forming a substantially waterproof open top housing having a horizontal bottom and two side walls extending upward along the sides of the trough sections and overlying the abutting ends thereof, said housing walls extending substantially to the top of the side walls, a cover overlying the spaced-apart ends of the capping sections, interengaging means between said cover and said housing for holding the cover readily removably in fixed relation to the housing whereby upon removal thereof access may be had to said hand opening and the capping is freed for removal from the trough sections respectively, and means for holding the trough sections on the pedestal against longitudinal movement.

3. In a trunking conduit device, the combination of a pedestal, an open-top yoke substantially in the form of three flat plates forming a pair of vertical side walls and a horizontal bottom wall, means for holding said yoke on the pedestal, a pair of trough sections abutting each other end to end and having vertical side walls and a horizontal wall conforming in shape to said yoke and adapted to interfit therewith whereby the walls of the yoke closely overlie the abutting ends of the trough sections, the arrangement providing that the trough sections may be lifted vertically out of the yoke, a capping section on each of the trough sections, the adjacent ends of the capping sections being above the yoke and substantially close to the joint formed by the abutting ends of the trough sections, a readily removable cover overlying the adjacent ends of the capping at the yoke, and means for holding the trough sections against longitudinal movement.

4. In a trunking conduit device, the combination of a pedestal, a pair of projections extending upward therefrom, two substantially horizontal trough sections meeting substantially end to end at the pedestal, each of said trough sections having an opening to receive one of said projections to hold the trough sections against longitudinal movement and for readily removability in the vertical direction, an open-top yoke encompassing the sides and bottom of the end portions of the trough sections, said projections extending also through the bottom of said yoke and holding it readily removably in position, capping on the trough sections, and a cover for the capping at the yoke, said cover being secured readily removably upon the yoke.

5. In a trunking conduit device, the combination of a pedestal, a pair of projections extending upward therefrom, two substantially horizontal trough sections of hardened plastic material each having a horizontal bottom and two vertical sides meeting substantially end to end at the pedestal, each of said trough sections having an opening in its bottom to receive one of said projections to hold the trough sections against longitudinal movement and for ready removability in the vertical direction, a metallic open top yoke encompassing the sides and bottm of the end portions of the trough sections, said projections extending also through the bottom of said yoke and holding it readily removably in position, capping of hardened plastic material on the trough sections, the capping and the trough sections having an interfitting substantially weatherproof joint locking the capping to the trough sections against lateral movement, a cover for the abutting ends of the capping at the yoke, and means for holding the cover readily removably upon the yoke, there being interengaging means between the cover and the capping to hold the capping against longitudinal movement.

JOHN M. FITZ GERALD.