Oct. 3, 1933. J. T. PEARSON 1,929,374

GROUNDING FITTING

Filed Aug. 9, 1930

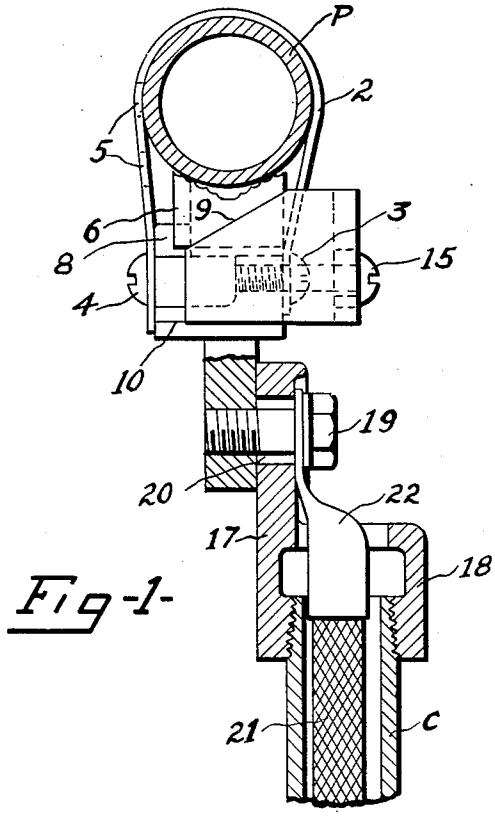


Fig-1-

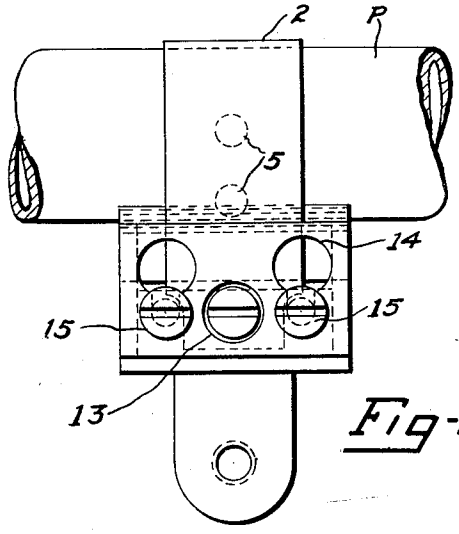


Fig-2-

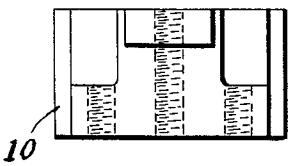


Fig-3-

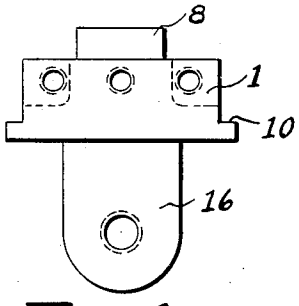


Fig-4-

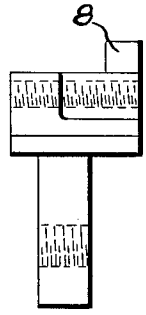


Fig-5-

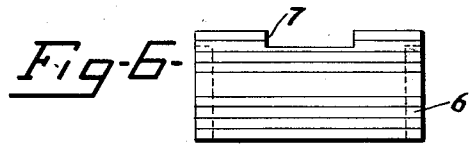


Fig-6-

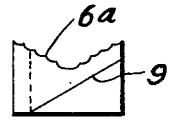


Fig-7-



Fig-8-

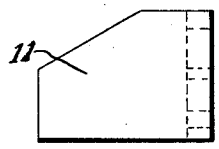


Fig-9-

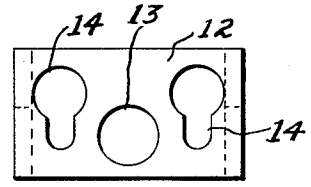


Fig-10-

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GROUNDING FITTING

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Application August 9, 1930. Serial No. 474,171

5 Claims. (Cl. 247—1)

This invention relates to grounding devices or connectors for grounding an electric conduit system to a conductor, as a water pipe, and has for its object, a connector or grounding device which is particularly simple and economical in construction, and highly efficient and durable in use, and also a particularly simple and efficient wedge means for operating the movable jaw of the grounding device.

The invention consists in the novel features and in the combinations and constructions hereinafter set forth and claimed.

In describing this invention, reference is had to the accompanying drawing in which like characters designate corresponding parts in all the views.

Figure 1 is a longitudinal, sectional view, partly in elevation, of this connecting device, the grounding conductor or water pipe, the conduit of an electric conduit system, and the wires enclosed by the same, being also shown.

Figure 2 is a plan view of parts seen in Figure 1, other parts being omitted.

Figures 3, 4 and 5 are respectively, a front elevation, a plan view, and a side elevation of the body.

Figures 6, 7 and 8 are respectively, inverted face view, and edge view, and a rear elevation of the movable jaw.

Figures 9 and 10 are respectively, a side elevation, and a plan view of the wedge member.

This grounding device comprises generally, a body, a fixed jaw carried by the body, a movable jaw also carried by the body and coacting with the fixed jaw, and wedge means interposed between the body and the movable jaw for operating the jaw.

1 designates the body which is in the general form of a metal block. and 2 is the fixed jaw carried by the body, this being preferably in the form of a looped strap having its ends overlapping the upper and lower sides of the body, and anchored thereto as by screws 3, 4. The screw 3 threads through a single opening in one end of the strap, and into the body, and the screw 4 is placeable through any one of a number of holes 5 in the strap in order to adjust the strap to different sizes of conductors, or water pipes P.

6 is the movable jaw extending transversely of the block 1 between the arms of the loop 2, the jaw being formed with a slot or groove 7 for receiving a lug 8 on the front side of the block, and interlocking the jaw with the block 1 against lateral displacement. The jaw is formed with a V shaped face 6^a for engaging the pipe P. The jaw 6 is operated by wedge means interposed between it and the body 1, and in the illustrated embodiment of my invention, this wedge means coacts with opposing faces 9 and 10 on the jaw and the block at opposite ends thereof, and the wedge means moves between the said opposing faces, one of said faces being inclined so that the wedge acts incline plane fashion thereon.

The wedge means is here shown as double, or with wedges at each end of the jaw and the body 1, and as illustrated, the wedge means is U shaped in general form with the arms of the U forming wedges 11 and the intermediate part 12 connecting the wedges. The U shaped wedge means is thus arranged astride the body 1 and the intermediate part thereof passes over one of the branches of the loop 2 and is formed with a work hole 13 through which the screw 3 is operable. The intermediate part 12 is also formed with openings for operating members or screws for the wedge means. There are preferably, two of such openings designated 14. These openings 14 are in the form of keyhole slots for receiving screws 15 which extend through the slots and thread into the block 1 on opposite sides of the screw 3, the heads of the screws 15 pressing against the intermediate part 12 of the wedge means on opposite sides of the narrow portions of the keyhole slots. The larger portions of the keyhole slots are for the purpose of permitting the bodily removal of the wedge means 12 without detaching the screws 15 from the block. After the screws 15 have been unscrewed a certain amount without detaching, the wedge means can be lifted far enough to permit it to be tilted and bring the larger ends of the slots in line with the heads of the screws 15 so that the wedge can be removed and replaced without completely detaching the screws 15. As the screws 15 are tightened, obviously the wedge member 11 will act on the jaw 6 and thrust it outwardly, tightening the pipe P between the loop 2 and the jaw 6.

The block or body 1 is also provided with an outwardly extending lug 16 to which a body 17 is secured, which body 17 is attached to an electric conduit C to be grounded. The body 17 is shown as a flat plate or lug portion having a collar 18 for receiving the conduit C, and the body 17 is secured to the lug 16 by a clamping screw 19 extending through an opening 20 in the body 17 and threading into the lug 16. The body 17, owing to the screw 19, can be clamped to the lug 16 in any one of a plurality of angular positions.

The opening 20 is a slot in order to permit an

in and out adjustment of the body 17 relatively to the body 1, or the lug 16.

21 is a wire housed by the conduit C and having a terminal 22 which is bound or grounded to the body 17 through the screw 19.

In operation, the loop 2 is adjusted to the approximate size of the pipe P, and then the screws 15 tightened causing the wedge members to tightly clamp the jaw 6 against the pipe P thus mechanically and electrically connecting the pipe to the body 1. The conduit C and the wire 21 therein is secured and grounded to the lug 16 in any one of a plurality of angular positions by means of the screws 19 which constitutes a swivel or pivotal joint between the bodies 1 and 17.

This grounding device is particularly advantageous in that it is readily adjustable to different size pipes, and pipes of different sizes can be electrically and mechanically secured to the body 1. Owing to the wedge means, a particularly powerful and effective clamping action is provided upon small movement of a wedge.

What I claim is:

1. In a grounding device, a body, a fixed jaw carried by the body, a movable jaw carried by the body and movable toward and from the fixed jaw, a wedge member arranged astride the body and having wedges coacting with the body and the movable jaw at opposite ends of the movable jaw to operate the movable jaw, and connections between the wedge member and the body to operate it, said connections including a screw extending through the intermediate part of the wedge and threading in the body.

2. A grounding device comprising a body, a fixed jaw carried by the body comprising a strap having its ends anchored to the body, a jaw movable in the body toward and from the intermediate part of the loop strap, a wedge movable between the movable jaw and the body, and means for operating the wedge.

3. A grounding device comprising a body, a fixed jaw carried by the body, a movable jaw for coacting with the fixed jaw, the movable jaw extending transversely of the body, the body and the jaw having opposing faces at their ends, and wedge means coacting with said opposing faces to operate the movable jaw, said wedge means being U shaped in general form with the arms of the U forming wedges, and means for operating the wedging means including a screw extending through the intermediate part of the U formation and threading into the body.

4. A grounding device comprising a body in the form of a block, a fixed jaw carried by the body comprising a strap anchored at its ends to opposite sides of the body forming a loop, a movable jaw within the loop and movable toward and from the intermediate part of the loop, the movable jaw and the body having opposing faces at their ends, a U shaped wedge member arranged astride the body and one end of the strap, the wedge member having its opposite branches coacting with said opposing faces, means for operating the wedge member extending through the intermediate part thereof and threading into the body, the body having a rearwardly extending stem, and a second body having means for connection to a conduit, and means for securing the second body to the stem.

5. In a grounding device for electrically and mechanically connecting an electric conduit to a grounded conductor, said device comprising a body having means for attachment to the electrical conduit, a fixed jaw carried by the body and having a portion engaging the conductor, a second jaw extending transversely of the body and movable from the body toward the conductor, a movable wedge coacting with the body and the movable jaw, and means for moving the wedge between the body and the jaw to force the movable jaw in contact with the conductor.

JOHN T. PEARSON.