

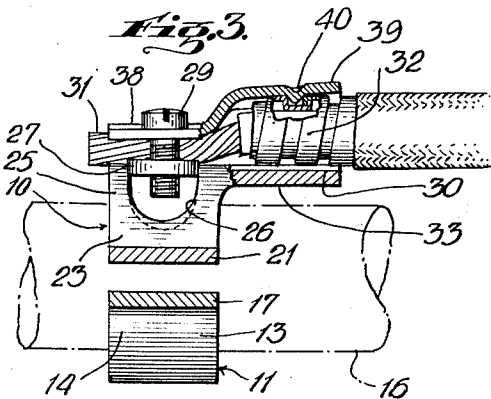
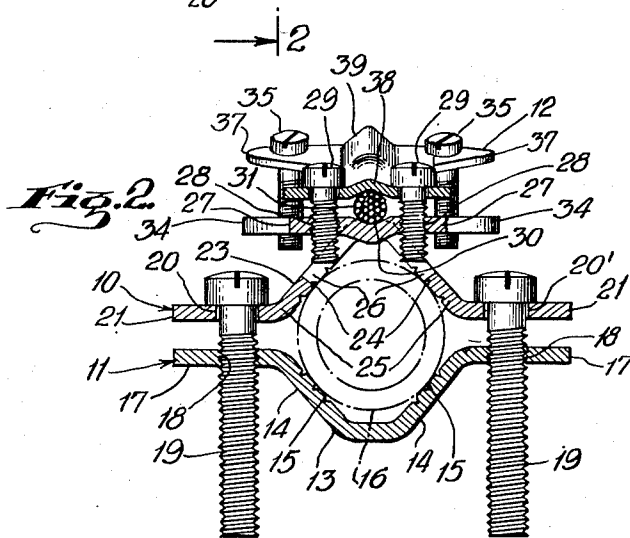
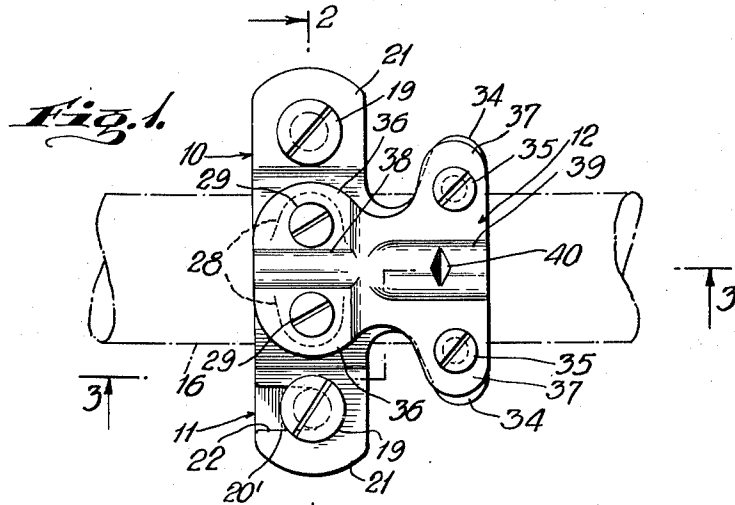
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GROUND CLAMP

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GROUND CLAMP

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1 Claim. (Cl. 173-273)

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This invention relates to what are generally known as ground clamps for use in grounding electric wires. More particularly, the invention deals with a clamp of the class described composed of three sheet metal stampings, two of which are adapted for clamping engagement upon a pipe or other ground support and the third adapted for clamping engagement with one of the first stampings in clamping a conductor as well as the armor of a conductor therebetween. The novel features of the invention will be best understood from the following description when taken together with the accompanying drawing in which certain embodiments of the invention are disclosed, and in which the separate parts are designated by suitable reference characters in each of the views, and in which:

Fig. 1 is a plan view of the clamp.

Fig. 2 is a section on the line 2-2 of Fig. 1; and

Fig. 3 is a section on the broken line 3-3 of Fig. 1.

In production of ground clamps of the kind under consideration, it has been customary to employ a fairly substantial clamp member as one of the parts in establishing a clamping engagement with the ground support and such things as castings and forgings have been used. Devices of this type and kind have been expensive and quite heavy in construction, from a standpoint of shipping costs. The purpose of my invention is to provide a light weight and yet strong and durable ground clamp construction made from sheet metal stampings, thereby materially reducing the cost of production of the device.

My improved ground clamp comprises two primary clamp plates 10 and 11 and a supplemental clamp plate 12. The plate 11 is in the form of a sheet metal strap having an offset central V-portion 13, inner surfaces of the inclined walls 14 of which are provided with notches, as at 15, to provide gripper surfaces to grip a pipe, tube or other support, indicated in dot and dash lines at 16 in the drawing. The laterally extending wing ends 17 of the plate 11 have threaded apertures 18 to receive clamp bolts 19 which pass freely through apertures 20-20' in corresponding wing ends 21 of the plate 10. The aperture 20' differs from the aperture 20 in opening out through one side of the plate, as seen at 22 in Fig. 1 of the drawing, thus providing for the swinging of the plate 10 with respect to the plate 11 without completely detaching the screws or bolts 19 from the plate 11 in making an assemblage.

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The plate 10 has a central V-portion 23 having transverse grooves 24 on the inner surfaces of the walls 25 thereof, similar to the grooves 15 for grouping the support 16. The walls 25 are cut-out, as seen at 26, note Fig. 2, to form another pair of smaller wings 27, having threaded apertures 28 for the reception of clamp screws 29. It will also appear from a consideration of Fig. 2 of the drawing, that the upper end of the V-portion 23 has centrally thereof a longitudinal groove or depression 30 which aids in keying a conductor wire 31 and the armor 32 thereof within and between the plates 10 and 12, as is clearly illustrated in Fig. 3 of the drawing, and also indicated in clamping the wire 31 in Fig. 2 of the drawing.

The plate 10 differs from the plate 11 in having a lateral extension 33, best shown in Fig. 3 of the drawing, this extension having a pair of oppositely directed wings 34 which are of greater width than the wings 27 and have threaded apertures similar to the apertures 28 for the reception of screws 35. The groove 30 passes through the lateral extension 32, as clearly seen in Fig. 3 in maintaining the key engagement with the armor 32. It will be understood that the plate 10 is also a sheet metal stamping and this applies to the plate 12. The plate 12 is generally of the shape shown in Fig. 1 of the drawing and has a small pair of wing portions 36 disposed over the wings 27 and apertured for reception of the screws 29. The plate 12 has a longer set of wings 37 disposed over the wings 27 and apertured for reception of the screws 29. The plate 12 has a longer set of wings 37 disposed over the wings 34 and apertured for the reception of the screws 35. The plate 12 has a narrow central V-portion 38 for clamp engagement with the conductor 31 and a wider V-portion 39 for clamp engagement with the armor 32. The V-portion 39 also has a transverse inwardly extended notch or bed 40, note Fig. 3 to engage between the recess portion of the armor 32, as clearly seen in Fig. 3 of the drawing to retain the armor against displacement from the clamp. The purpose of this construction is to establish a ground connection with the armor, as is required in many of the electrical codes.

In attaching the clamp to a support, screws 19 are adjusted in the plate 11 to a position to allow the plate 10 to swing over the support, after which the plate 10 or the opening 20' thereof is brought into engagement with the screws or bolts 19, and the screws or bolts 19 are then

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tightened to securely fix the clamp to the support, as at 16. In like manner, the screws 29—35 are loosened sufficiently to provide free insertion of the conductor 31 and armor 32 and then these screws 29 and 35 are tightened to secure the conductor and armor to the ground clamp.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent is:

In a ground-wire fitting comprising two body members substantially V-shaped in cross-section, each member having two flanges, releasable means for securing said members in unitary relation, said members being assembled with said V-shaped portions facing in opposite directions and being movable to or away from each other to permit mounting said members upon a pipe of large or small diameter, one of said V-shaped members having a flanged extension and an elongated notch extending throughout the

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height of said member, a cap having a large recess and a small notch, said recess and notch being longitudinally aligned and laterally offset from each other, and means for aligning said cap recess and notch with said notch in said V-shaped member and to cause said cap to clamp an electric cable and its bare wire to said notched V-shaped member simultaneously and in a single straight line.

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The following references are of record in the file of this patent:

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