April 19, 1938. O. F. TALLMAN 2,114,752

GROUND CLAMP

Filed Jan. 16, 1936

Fig. 1

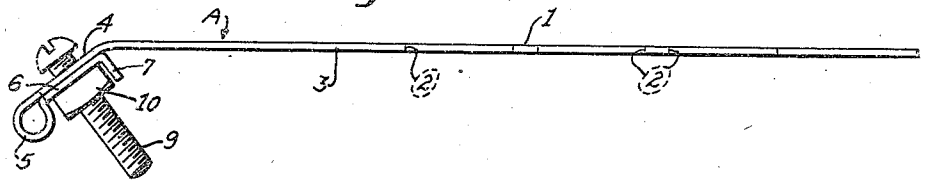


Fig. 2

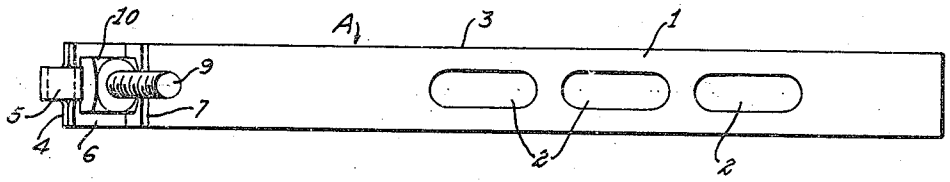


Fig. 3

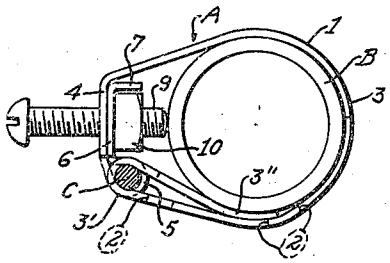


Fig. 4

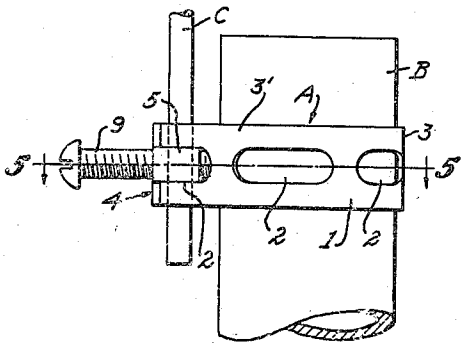
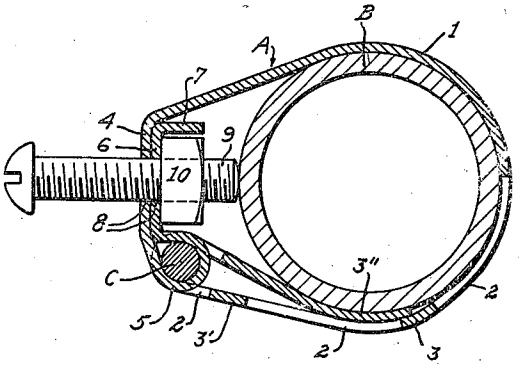


Fig. 5



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GROUND CLAMP

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Application January 16, 1936, Serial No. 59,331

2 Claims. (Cl. 173—273)

This invention relates generally to clamps, and more specifically to clamps adapted for use in electrically and mechanically connecting electrical grounding wires to grounding elements, such as rods, pipes, etc., extended into or otherwise connected to the ground, the predominant object of the invention being to provide an improved clamp of this type which is of extremely simple and inexpensive construction and which is capable of performing its intended function in a highly efficient manner.

Fig. 1 is a plan view of the improved clamp as it appears before being applied to a grounding element.

Fig. 2 is an elevation of the clamp illustrated in Fig. 1.

Fig. 3 is a plan view of the clamp in use.

Fig. 4 is a side elevation of the structure shown in Fig. 3.

Fig. 5 is an enlarged section taken on line 5—5 of Fig. 4.

In the drawing, wherein is shown for the purpose of illustration, merely, one embodiment of the invention, A designates the improved clamp generally. The clamp A comprises a single strip 1 of copper or other suitable material characterized by being a good conductor of electricity, through which is formed a plurality of elongated openings 2 spaced longitudinally of the strip. Previous to attachment to a grounding element the improved clamp appears as shown in Figs. 1 and 2; that is to say, the portion of the strip 3 that embraces the grounding element when the clamp is in use is substantially straight.

Extended from an end of the grounding element-embracing portion 3 of the strip 1 is a short strip portion 4, said portion 4 being an integral part of the strip 1. The portion 4 has formed integrally therewith an eye 5 which, as shown to the best advantage in Figs. 2 and 4, is narrower than the remainder of the strip, such reduction in width of the eye being accomplished by cutting away or otherwise eliminating portions of the strip at opposite sides of the portion of the strip which provides the eye. Extended from the eye 5 of the strip is a strip portion 6 which is arranged in contacting parallelism with respect to the strip portion 4 heretofore mentioned. The strip portion 6 is, of course, an integral part of the strip 1, and this portion 6 is provided at its outer end with an integrally formed, outstanding flange 7 which serves a purpose to be hereinafter set forth.

Formed through the strip portions 4 and 6 is a pair of alined apertures 8 through which the shank portion of a clamping screw 9 extends, this clamping screw having a nut 10 associated therewith the inner face of which is adapted to contact with the outer face of the strip portion 6. It will be noted that the outstanding flange 7 is disposed in close proximity to a face of the nut 10, and this flange serves to prevent the nut from turning with the clamping screw 9 when same is rotated.

When the improved clamp is to be applied to a grounding element such as the pipe B shown in Figs. 3, 4, and 5 for the purpose of electrically and mechanically connecting thereto an electrical grounding wire, such as that shown in the views just mentioned and designated by the reference character C, the clamping screw 9 is backed up as far as it will go without being disengaged from the nut 10, and the embracing portion 3 of the strip 1 is bent around the grounding element, as shown in Fig. 3, with the outer end portion of the embracing portion 3 of the strip 1 bent double to form a loop 3' whose free end portion 3'' is interposed between the embracing portion of the strip 1 and the grounding element B. It is to be noted that the loop 3' is always formed so that one of the elongated openings 2 is located in the outer end of the loop which produces an eye portion, whereby said eye portion is of bifurcated formation, as shown in Fig. 4. The eye portion produced by the outer end portion of the loop 3' is then assembled with the eye 5 of the strip 1, said eye 5 being extended into the opening 2 in the end of the loop, and the eye 5 and the eye portion produced by the loop 3' being brought into alinement with each other. The grounding wire C is then passed through the alined eye 5 and the eye portion of the loop 3', after which the clamping screw is screwed inwardly through the nut 10 into clamping contact with the grounding element.

It is important to note that when the clamping screw is screwed inwardly into clamping contact with the grounding element B, the embracing portion 3 of the strip is drawn tight about the grounding element B so as to securely attach the clamp to the grounding element, and that by this same clamping action the eye 5 and the eye portion of the loop 3' are drawn tight about the grounding wire C to securely fix said grounding wire to the clamp. It is also important to note that the clamp may be applied to grounding elements of different diameters because of the plurality of spaced openings 2 which permit the eye portion of the loop 3' to be located at different positions longitudinally of the strip 1, whereby

grounding device embracing portions of different lengths may be provided for grounding devices of different diameters.

I claim:

1. A clamp of the class described comprising a strip of material having a portion adapted to embrace a grounding element, an eye forming a part of said strip, said grounding element embracing portion of the strip of material being bent to provide at an end thereof an eye portion adapted for arrangement in alinement with said eye so that said eye and said eye portion may receive a grounding wire, and a clamping element for fixing the clamp to a grounding element and drawing said eye and said eye portion into clamping relation with said grounding wire, said clamping element being located in close proximity to said eye and said eye being formed by a portion of the strip of material which is extended directly from a pair of parallel strip portions through which said clamping element is extended.

2. A clamp of the class described comprising a strip of material having a portion adapted to embrace a grounding element, an eye forming a part of said strip, said grounding element embracing portion of the strip of material being bent to form a loop at one end thereof and an end portion of the loop forming portion of the strip being interposed between the grounding element embracing portion of the strip and the grounding element, said strip of material being provided with a plurality of openings spaced longitudinally thereof, one of which is located at the outer end of said loop so as to provide a bifurcated eye portion which receives said eye between and in alinement with spaced portions thereof whereby said eye and said eye portion may receive a grounding wire, and a clamping element for fixing the clamp to a grounding element and drawing said eye and said eye portion into clamping relation with said grounding wire, said clamping element comprising a clamping screw extended through alined openings formed through adjacently disposed portions of said strip, and a nut associated with said clamping screw.

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