April 21, 1936. J. MANGIN 2,038,436

GROUND FITTING

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Fig. 1.

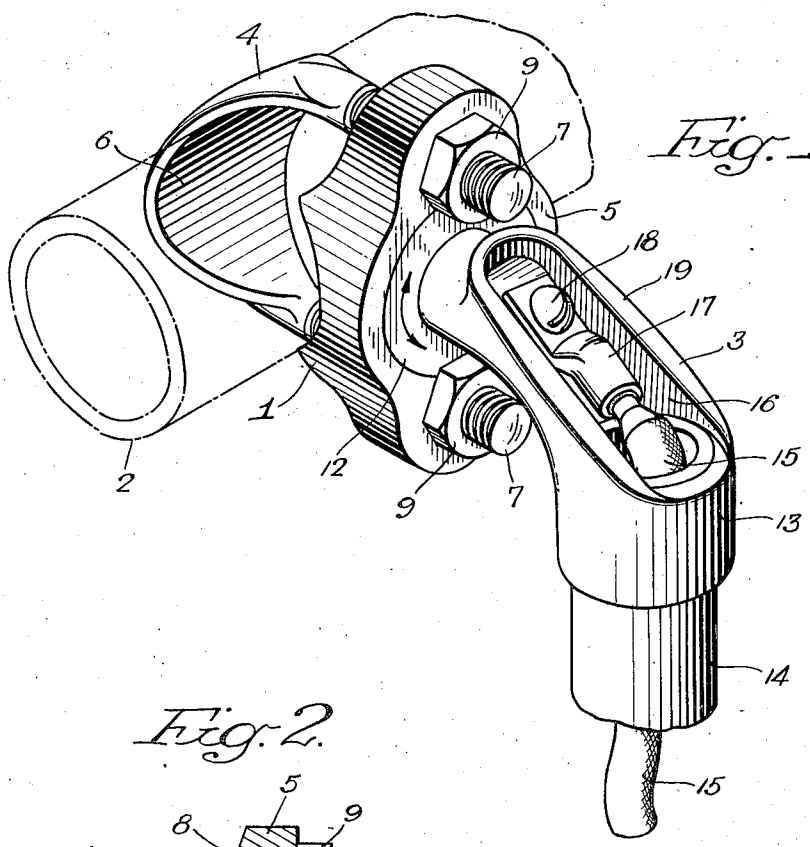
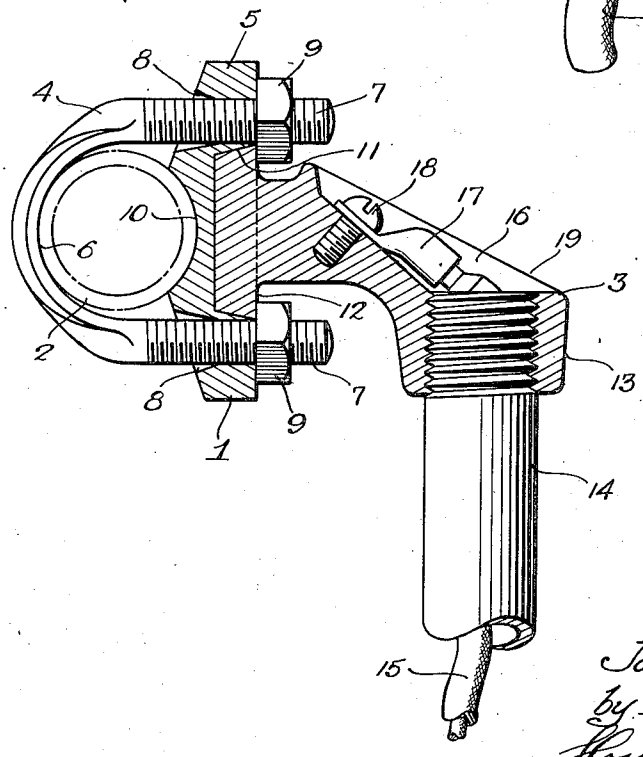


Fig. 2.



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Fig. 3.

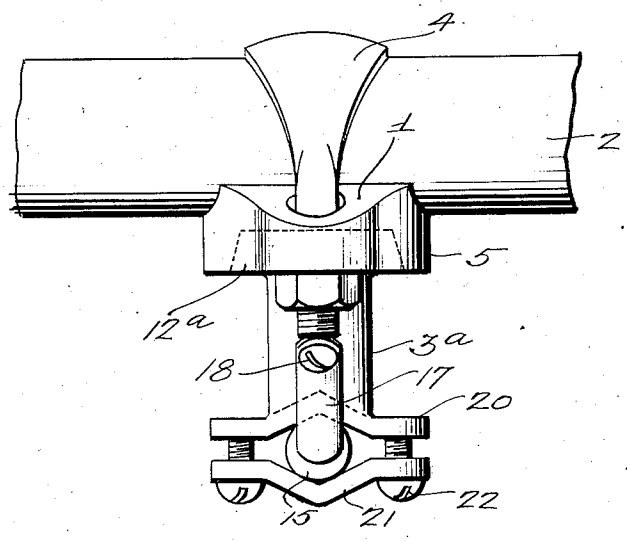


Fig. 4

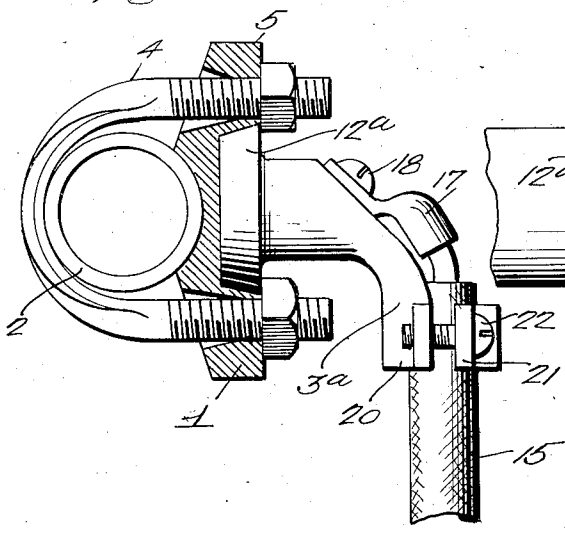
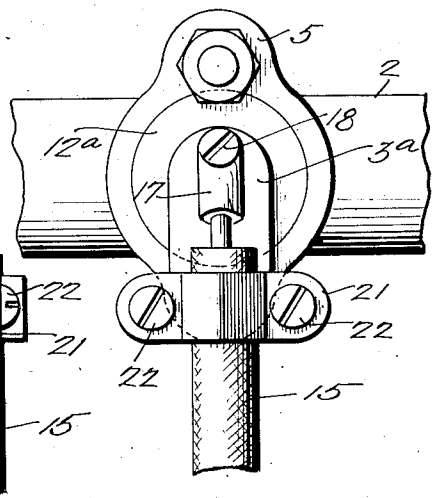


Fig. 5.



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UNITED STATES PATENT OFFICE

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GROUND FITTING

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Application December 21, 1933, Serial No. 703,467

2 Claims. (Cl. 247—1)

This invention relates to connector devices and particularly to ground fittings, and has for its principal object the provision of a simple and efficient fitting of the type that enables the grounding connection of a conductor to a pipe regardless of the angle of approach of the conductor with respect to the pipe.

Another object of the invention is to provide a novel construction whereby a member may be adjustably attached to a pipe, rod or the like.

In accordance with the invention, there is provided a novel pipe clamp and a conductor-receiving member, the said clamp and member being formed so as to novelly cooperate toward the desired end, the fastening means of the clamp serving the additional function of holding the clamp and conductor-receiving member together.

The invention may be clearly understood by reference to the following detailed description of the embodiments of the device shown in the drawings. In the drawings:

Fig. 1 is a perspective view of one form of the device in operative association with a pipe;

Fig. 2 is a sectional view taken through the center of the device;

Fig. 3 is a side elevational view of a modification;

Fig. 4 is a partial sectional view of the same device; and

Fig. 5 is a right hand face view of the device as shown in Fig. 4.

Referring to Figs. 1 and 2 of the drawings, the device shown therein comprises a pipe clamp 1, which is adapted to tightly embrace a pipe 2, and a conductor-receiving member 3 adapted for novel cooperation with the clamp. The pipe clamp comprises a yoke 4 and a pipe-seating member 5. The yoke is preferably, though not necessarily, flattened, as at 6, to provide a large pipe-engaging area. The threaded legs 7 of the yoke extend through openings 8 in the pipe-seating member 5 and are adapted to receive fastening nuts 9. The pipe-seating member preferably has formed therein on one side a pipe-seating recess 10 in which the pipe snugly seats, as shown clearly in Fig. 2. While desirable, it is not necessary that the pipe-seating member be recessed to seat the pipe. The seating surface may be flat, for example. It will be seen that when the clamp is operatively actuated by drawing up or tightening the nuts 9, it will be securely attached to the pipe and will make good electrical contact therewith, especially since the portion 6 of the yoke and the pipe seat 10 have large pipe-engaging surfaces.

The pipe-seating member 5 has formed in its opposite side a recess 11 which is centrally located between openings 8, the openings being adjacent the recess on opposite sides thereof. The recess is adapted to receive and snugly seat a knob or head 12 carried by and integral with the conductor-receiving member 3. Preferably, the recess 11 and the knob 12 are circular so that the knob may be rotated within the recess in either direction, as indicated by the double head arrow in Fig. 1. The knob is of a configuration similar to the recess so that it seats snugly in the recess and is, at the same time, adapted for rotary adjustment. The purpose of this adjustment is to enable the positioning of the conductor-receiving member at various angles relative to the pipe and the pipe clamp to accommodate a conductor approaching the pipe from a given direction. By virtue of this adjustment and the adjustability of the pipe clamp about the pipe, it will be seen that a grounding connection of a conductor may be made regardless of the direction of approach of the conductor. The recess and knob are preferably tapered, as shown.

The flange portion of the knob 12 is engageable by nuts 9, as shown clearly in Fig. 2, so that the nuts serve the additional function of locking the conductor-receiving member in adjusted position and securing the same rigidly to the pipe clamp. The nuts, when tightened, bear upon the knob and exert the required pressure thereon.

The conductor-receiving portion 13 of member 3 is preferably disposed substantially at right angles to the knob or head. Portion 13 is internally threaded to receive a conductor conduit 14 carrying the insulated ground wire 15. The conductor-receiving member is also preferably formed to provide a cradle recess 16 adapted to receive and give access to the ground wire terminal 17 which may be secured mechanically and electrically by means of screw 18. The cradle recess may be formed by the provision of an extended wall 19. It will be seen that this construction gives ready access to the ground wire terminal and, at the same time, the said terminal is snugly seated. Although not shown, a cover could be provided for the cradle recess if desired.

Although it is desirable to have the recess 11 and knob 12 circularly formed to provide for rotary movement of the conductor-receiving member relative to the clamp, the recess and knob may take the form of a regular polygon providing as many adjusting positions of the conductor-receiving member as there are sides of the polygon. In such case, it would be necessary,

of course, to remove the knob from the recess to adjust the position thereof.

The modification shown in Figs. 3 to 5 differs from the above described device in that the conductor-receiving member is modified. In this case the said member 3a is formed to provide a clamp element 20 at its end, which element cooperates with clamp element 21 and screws 22 to hold the conductor 15 securely. Thus the two-part clamp is adapted to receive and hold an insulated conductor. An inclined surface on the conductor-receiving member provides for attachment of terminal 17 by screw 18. Aside from the modification of the conductor-receiving member, the device is the same as the previously described device and operates in the same manner.

From the disclosure and above description, it will be seen that the device is very simple in construction, but at the same time, is efficient in performance of its intended function. By virtue of its simplicity, the device may be made economically and may be sold at relatively low cost.

Although only two forms of the device have been illustrated herein, for the purpose of disclosure, it will be understood that various changes and modifications as to the details of the device may be made without departing from the spirit and scope of the invention.

I claim:

1. In a ground fitting, a member having a pipe seat and a recess on opposite sides thereof, a pipe-embracing member extending through said member adjacent said recess, a conductor-receiving member having a knob seated snugly in said recess and adjustable throughout a circle in a plane perpendicular to the axis of said recess, whereby said conductor-receiving member may be positioned at various angles to said pipe, said conductor-receiving member having a cradle recess with means therein for the attachment of a ground wire terminal, and operating means on said pipe-embracing member engaging the flange of said knob to secure the conductor-receiving member and to actuate the pipe clamp.

2. In a ground fitting, a member having a pipe seat and a recess on opposite sides thereof, a pipe-embracing member extending through said member adjacent said recess, a conductor-receiving member having a knob seated snugly in said recess and adjustable throughout a circle in a plane perpendicular to the axis of said recess, whereby said conductor-receiving member may be positioned at various angles to said pipe, said conductor-receiving member having means separate from said pipe-embracing member for the attachment of a ground wire, and operating means on said pipe-embracing member engaging the flange of said knob to secure the conductor-receiving member and to actuate the pipe clamp.

JAMES MANGIN.