

March 11, 1924.

1,486,560

R. A. BECKER

GROUNDING CLAMP FOR ELECTRIC WIRES

Filed June 22, 1921

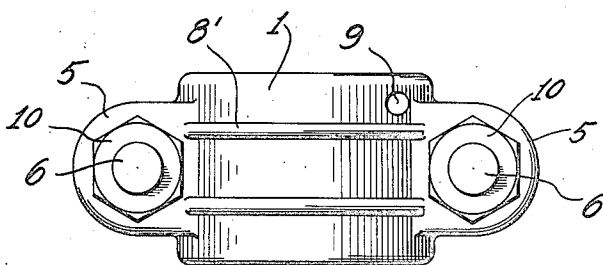
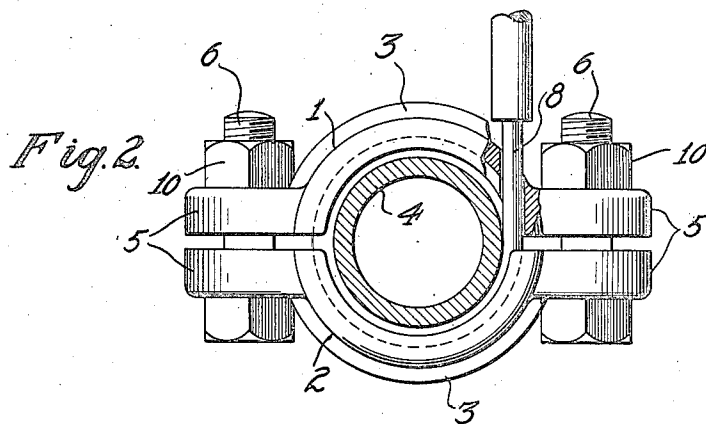
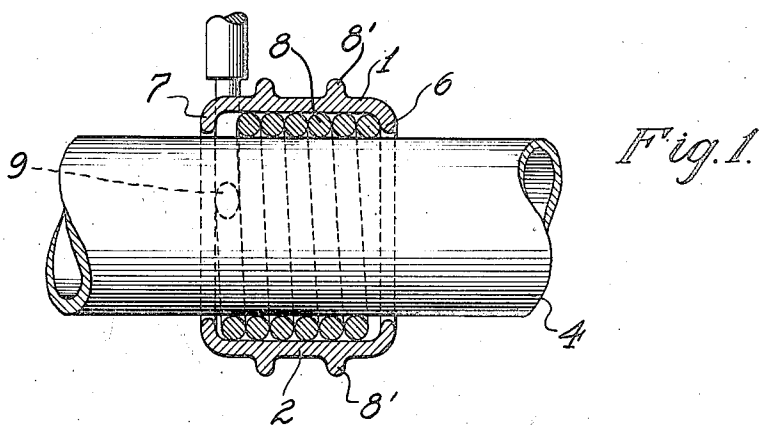


Fig. 3.

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UNITED STATES PATENT OFFICE.

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GROUNDING CLAMP FOR ELECTRIC WIRES.

Application filed June 22, 1921. Serial No. 479,612.

To all whom it may concern:

Be it known that I, ROBERT A. BECKER, a citizen of the United States, residing at Poughkeepsie, in the county of Dutchess and State of New York, have invented certain new and useful Improvements in Grounding Clamps for Electric Wires, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to an improvement in grounding clamps for electric wires.

Objects of the invention are to provide a simple, durable, and convenient grounding clamp; one which can be manufactured at a relatively small cost; which can be quickly connected to, or disconnected from, conducting objects such as water or gas pipes and the like and which will not require the use of solder to make the connection; one which will bring the grounding wire into intimate contact with the pipe to which the clamp is applied so that the current will flow directly from the wire to the pipe; and one which will maintain a "cold weld" connection, with greater conductivity than the wire will carry.

Other objects and advantages will in part be apparent and in part be brought out more fully in the following specification.

In order that the invention may be readily comprehended, I have shown one embodiment thereof in the accompanying drawings; but it is to be understood that other embodiments and utilizations of the device are within the spirit of the invention.

Reference is had to the accompanying drawings, in which—

Figure 1 is a view in transverse section showing the device attached to a pipe;

Fig. 2 is a view in end elevation, a portion of the device being broken away; and

Fig. 3 is a view in top plan.

In these drawings, the numerals 1 and 2 designate the coacting members or sections of my improved clamp, which may be made of any suitable conductive material. Each section has a body-portion 3, semi-circular in form and preferably of a size and shape, when in use, to encircle the object to which it is to be attached, and which I have shown as a pipe 4. Outstanding from the encircling portion of each section of the clamp are bosses 5, those on the member 1 alining with those on the member 2, as understood. These bosses have bolt holes therethrough for the reception of bolts 6 for securing the

sections together. Each section has formed, at opposite ends, inturned flanges 7 which serve to keep the grounding wire 8 from working out, and with strengthening ribs 8' extending across the body-portion 3.

In order that the grounding wire 8 may be inserted into the clamp, I have provided the upper section 1, near one edge of the body portion thereof, with a perforation or an opening 9. Preferably, the sections 1 and 2 are of a width to accommodate six coils of the grounding wire 8. The grounding wire, by being introduced into the inside of the clamp, is brought not only in direct contact therewith, but also into direct contact with the pipe 4. The inturned edges 7 of the clamp prevent the wire from slipping or working out from under the clamp section until the two sections are drawn together by the bolts, as above referred to, and, also, serve to hold the coiled wire in close association.

In carrying out my invention in actual practice, the workman will clean that portion of the pipe 4, where the clamp is to be attached, with a file, emery paper, or any suitable abrasive, in order that proper contact between the wire and the pipe can be had. He then places the upper section 1 of the clamp on the top of the cleaned surface of the pipe and inserts the end of the grounding wire 8 through the opening 9 and works the same around the pipe until, preferably, six complete revolutions have been made. Then, the other section 2 of the clamp is placed underneath the top section 1 and the two sections secured together by the bolts 6 and nuts 10.

From the foregoing, it will be seen that I have devised an exceedingly simple device, and one which has been found, in actual use, to be practical for grounding wires without employing a solder connection.

What I claim is:

1. A grounding clamp including coacting members each comprising a body-portion; extensions disposed on each body-portion for the reception of securing means; and securing means including a clamping instrumentality operably associable with the extensions and adapted to draw the members together into engagement with the object to which they are to be secured; each of the coacting members being provided with an inturned flange arranged at opposite sides thereof to constitute, with its coacting member, a hous-

ing for a portion of a grounding wire, one of said members being provided with an opening for the insertion of the grounding wire.

2. A grounding clamp including coacting
5 members each comprising a body-portion; extensions disposed on each body-portion for the reception of securing means; and securing means including a clamping instrumentality operably associable with the exten-
10 sions and adapted to draw the members together into engagement with the object to which they are to be secured: each of the coacting members being provided with an in-turned flange arranged at opposite sides
15 thereof to constitute, with its coacting mem-

ber, a housing for a portion of a grounding wire, said flanges also constituting a stop to limit outward movement of a portion of a grounding wire when said wire is coiled around an object between the coacting mem- 20 bers, one of said members being provided with an opening for the insertion of the grounding wire.

In testimony whereof I affix my signature in presence of two witnesses.

ROBERT A. BECKER.

Witnesses:

STEPHEN G. GUERNSEY,
RAYMOND G. GUERNSEY.