May 22, 1928. 1,670,347

G. B. GORDON

CLAMPING DEVICE

Filed Dec. 27, 1926

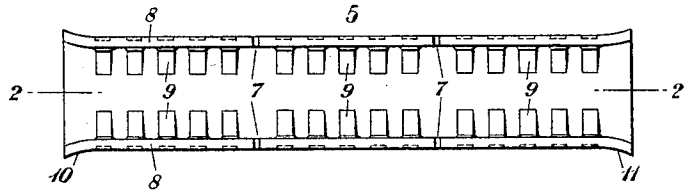


Fig. 1

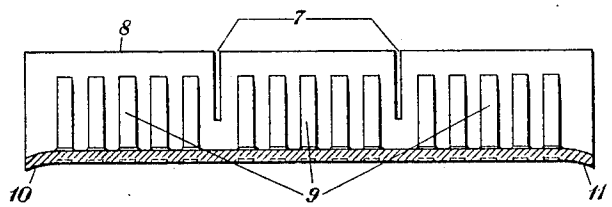


Fig. 2

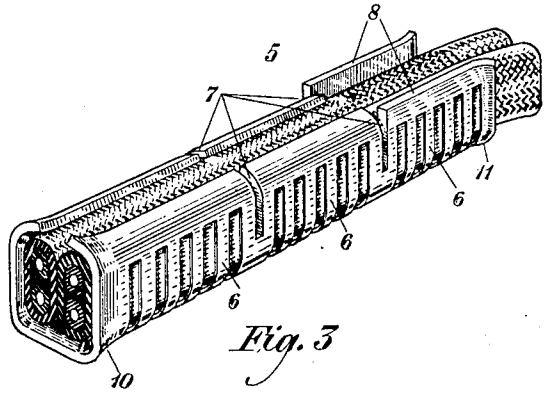


Fig. 3

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Patented May 22, 1928. 1,670,347

UNITED STATES PATENT OFFICE.

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CLAMPING DEVICE.

Application filed December 27, 1926. Serial No. 157,327.

This invention relates to improvements in clamps for securing flexible members, and more particularly electrical conductors.

An object of the invention is to provide an improved device of the above character, which furnishes an efficient and durable clamping means for securing the wire without injury thereto, and which may be readily used with wires or conductors of different diameters.

Another object of the invention is to provide a device of comparatively simple and inexpensive construction, which may be readily and quickly applied to wires and detached therefrom with but a minimum expenditure of time and labor.

These and further objects will be apparent from the following description, when considered in connection with the accompanying drawing.

The above objects are attained by means of a clamp or clip of simple construction, which is adapted to secure parallel lays of wire together without injury to the insulating covering usually enclosing the conductors. By means of this invention, the previous expensive method of securing the lays together by tie wires and the like is eliminated. In an embodiment of the invention herein described, the clamp consists of a metal channel member which may be composed of any suitable material, such as brass, and which may be of any desired length and thickness. The channel member is divided into sections by transverse cuts in the metal so that each section may be pressed into intimate contact with the wires after the latter have been inserted in the clamp. The clamps are provided with transverse corrugations on the inner surface of each section to decrease the likelihood of slippage of the wire. The corrugations also cooperate with the side portions of the sections to keep the wires contained in the clamps, as will presently appear.

In the drawing, Figure 1 illustrates a top plan view of the improved arrangement; Fig. 2 is a side elevation thereof in section, and Fig. 3 is a perspective view showing the wires in position, with certain of the sections closed to indicate the manner in which the clamp is used to embrace the enclosed wires to hold them in clamped position.

Referring to the drawing, the clamp comprises a body member 5 which is substantially an elongated channel of U-shaped cross-section. The member 5 is divided into sections, in the present case being shown as three in number and designated by the character 6. The sections 6 are provided by separating the metal from which the body member is formed at points along its sides. This may be accomplished by making cuts or slits 7 at desired intervals in both sides of said metal, which extend from the upper edges 8 in a transverse direction in the body member. The cuts may extend downwardly a sufficient distance on the sides to permit the upper parts of the sections to be somewhat flexible so that the top edges 8 of the clamp may be readily turned in an inward direction toward each other to embrace the wires within the clamp. The structure is rugged enough to permit sufficient pressure to be exerted on the sides of the sections to hold the wires securely in clamped position.

A series of transverse corrugations 9 extend throughout each section, which prevent the slippage of the wires or other flexible members. These corrugations may extend any desired distance about the sections and cooperate with the clamped side portions of the sections to securely maintain said wires or members in position. The corrugations may be of the rolled or stamped type and are adapted to be applied to the wires and provide sufficient pressure to prevent their slippage without injury to their insulated covering.

The bottom of the groove portion of the body member 5 is preferably flared at its ends, such, for instance, by the provision of curved lips 10 and 11 oppositely positioned with respect to each other. These lips serve to effect a gradual release of the clamping pressure exerted on the wires at points where they leave the clamp.

It is customary to seat two parallel strands

of wire in a clamp, as indicated in Fig. 3 of the drawing, so that the sides of the clamp bear on the flat surfaces of said wires. After the wires are in place, the sections are closed separately by means of a suitable tool such as pliers. The edges of each section are bent inwardly toward each other and then firmly pressed down upon the wires. The clamp will thus present uniformity in both appearance and strength throughout.

What is claimed is:

1. A clamp comprising an elongated transverse U-shaped member having slits formed in the opposite sides thereof with an intermediate web portion to divide the clamp into a plurality of sections, the sides of said sections being flexible, and a flared portion at each end of said clamp.

2. A clamp comprising an elongated transverse U-shaped member having slits formed in the opposite sides thereof with an intermediate web portion to divide the clamp into a plurality of sections, the sides of said sections being flexible, and friction means extending in a transverse direction in each section.

3. A clamp for wires, comprising an elongated U-shaped member, a plurality of sections therefor, the sides of said sections being flexible and adapted to be bent upon the wires to clamp them in position in a groove in said U-shaped member, friction means extending in a transverse direction in each section and cooperating to retain the wires in position, and a flared portion at each end of the clamp for effecting a gradual release of the clamping pressure exerted on the wires at points where they leave the clamp.

4. A clamp for wires, comprising an elongated transverse U-shaped member, a plurality of sections therefor, said sections being separated by notches with an intermediate longitudinal web portion which provides a seat for the wires and connects the sections to each other, flexible side members for the sections having top edges adapted to be inturned to embrace the wires and maintain them in clamped position in the U-shaped member, and transverse corrugations for each section cooperating with the flexible side members in positioning the wires and preventing their slippage.

5. A clamp for wires, comprising an elongated opposite transverse U-shaped member having transverse slits therein with an intermediate web portion to divide the clamp into a plurality of sections connected only by said web portion, the sides of said sections being flexible to permit the upper edges thereof to be turned inwardly to embrace the wires and maintain them in clamped position in the U-shaped member, the sides of said sections when thus applied presenting a comparatively uniform pressure to the embraced wires throughout said member, and transverse corrugations for each section cooperating with the flexible side members in positioning the wires and preventing their slippage.

6. A clamp for securing parallel strands of wire and having a central portion and sides, said sides having outwardly flared ends and being bendable toward each other to grip the strands.

7. A clamp for securing parallel strands of wire and having a central portion and sides, said sides having transverse, inwardly extending ribs and outwardly flared ends and being bendable toward each other to grip the strands.

8. A clamp comprising a plurality of separable longitudinal sections, each section having a central portion and having substantially parallel sides bendable toward each other independently of the sides of the other sections, said sections being connected at their central portions only.

9. A clamp comprising a plurality of separable longitudinal sections, each section having a central portion and having sides bendable toward each other independently of the sides of the other sections and each section being connected to an adjacent section by a central connecting web connecting the central portions of the sections.

10. A clamp for securing parallel strands of wire, said clamp being substantially U-shaped in section and comprising a plurality of separable longitudinal sections, the sides of the clamp sections being spaced apart throughout their widths by notches.

11. A clamp comprising a plurality of separable longitudinal sections, each section having a central portion and having sides bendable toward each other independently of the sides of the other sections and each section being connected to an adjacent section by a connecting web connecting the central portions of the sections.

12. A clamp for securing parallel strands of wire and having a central portion and sides, said sides having transverse, inwardly extending ribs and being bendable toward each other to grip the strands, said central portion having a smooth inner surface.

13. A clamp for securing parallel strands of wire and having a central portion and sides, said sides having transverse, inwardly extending ribs and being bendable toward each other to grip the strands, said transverse ribs terminating short of said central portion of the clamp.

14. A clamp for securing parallel strands of wire and having a central portion and sides, said sides having transverse ribs and being bendable toward each other to grip the strands, said central portion having a smooth inner surface.

15. A clamp for securing parallel strands of wire and having a central portion and

sides, said sides having gripping means and being bendable toward each other to grip the strands, said central portion having a smooth inner surface.

16. A sheet metal clamp for securing parallel strands of wire and having a central portion and sides, said sides having gripping means and being bendable toward each other to grip the strands, said central portion having a smooth inner surface.

In testimony whereof, I have signed my name to this specification this 23rd day of December, 1926.

GEORGE B. GORDON.