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J. A. RAPELJE

WIRE CLAMP

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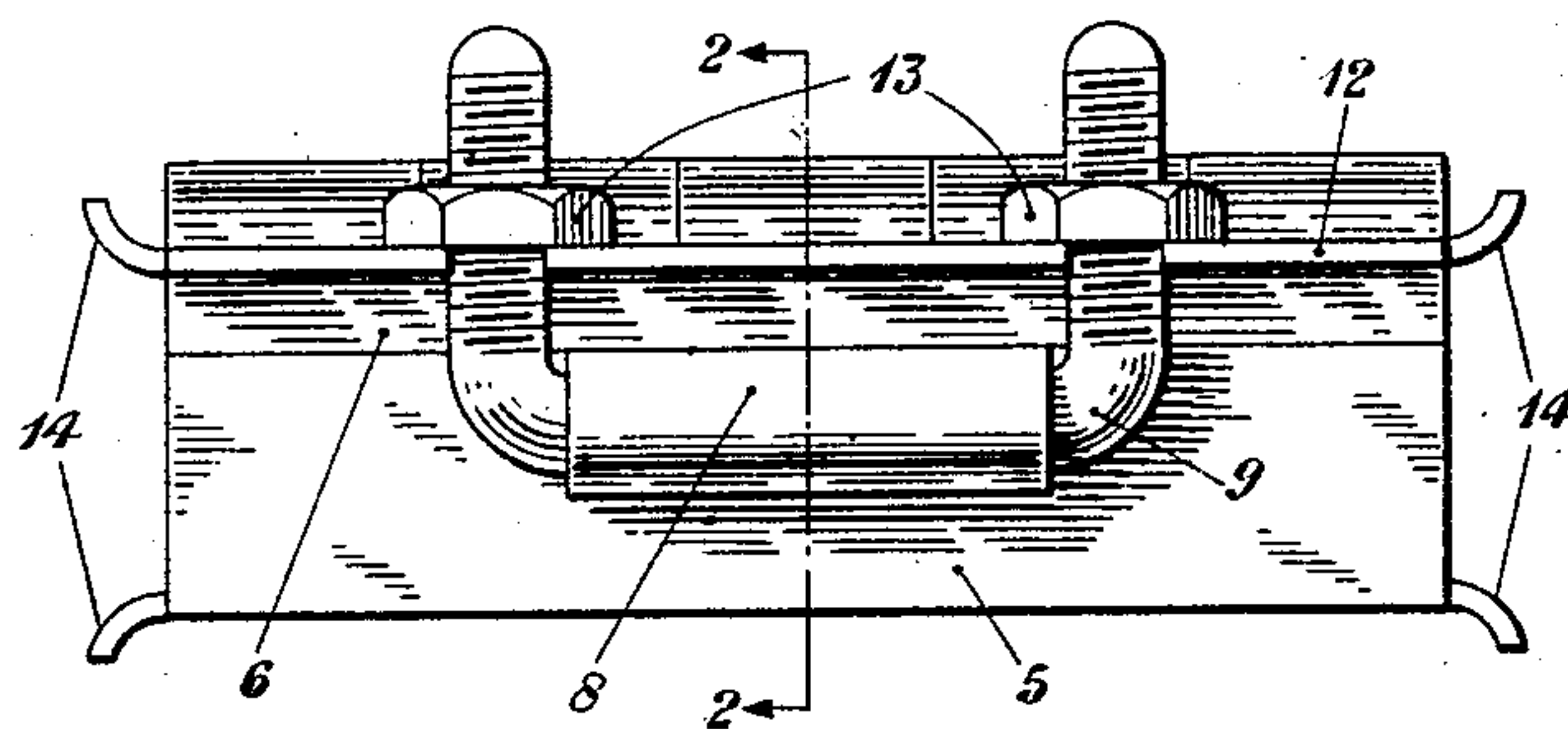


Fig. 1

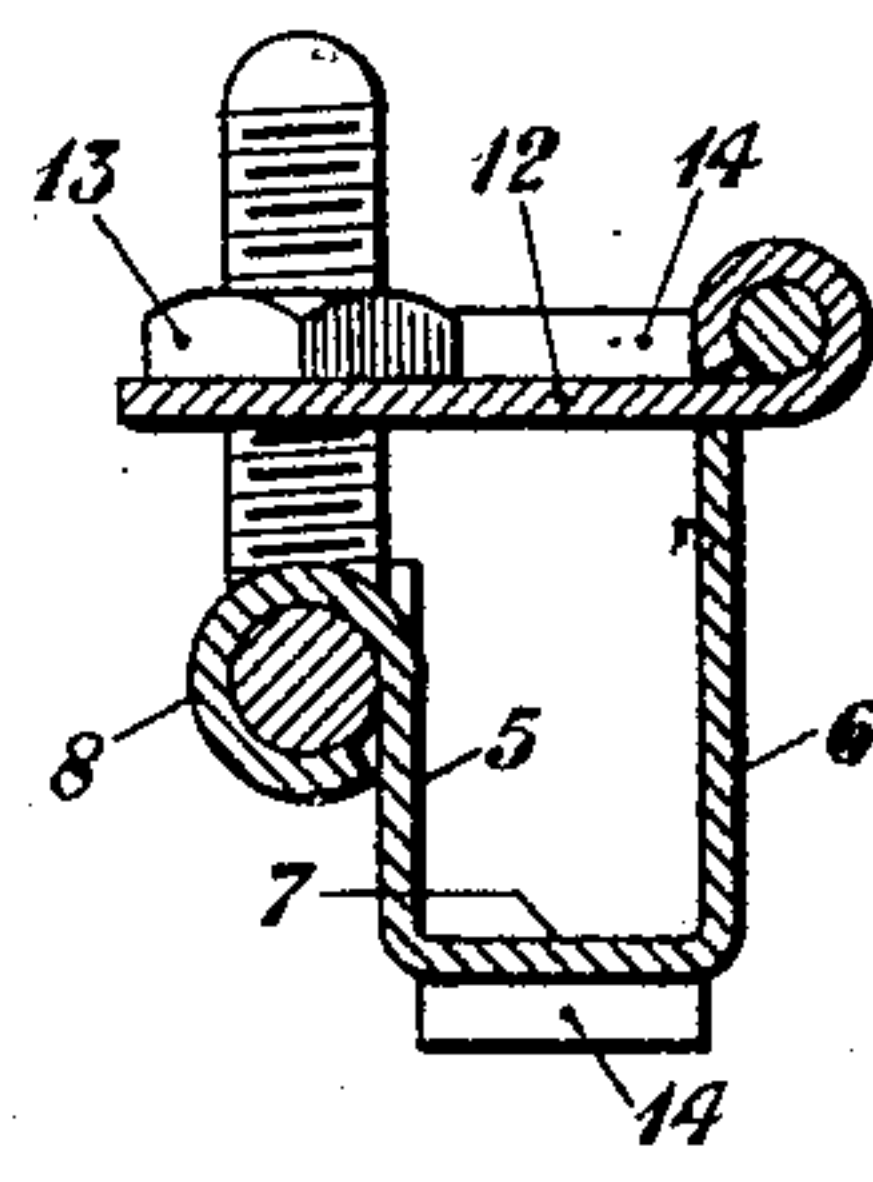


Fig. 2

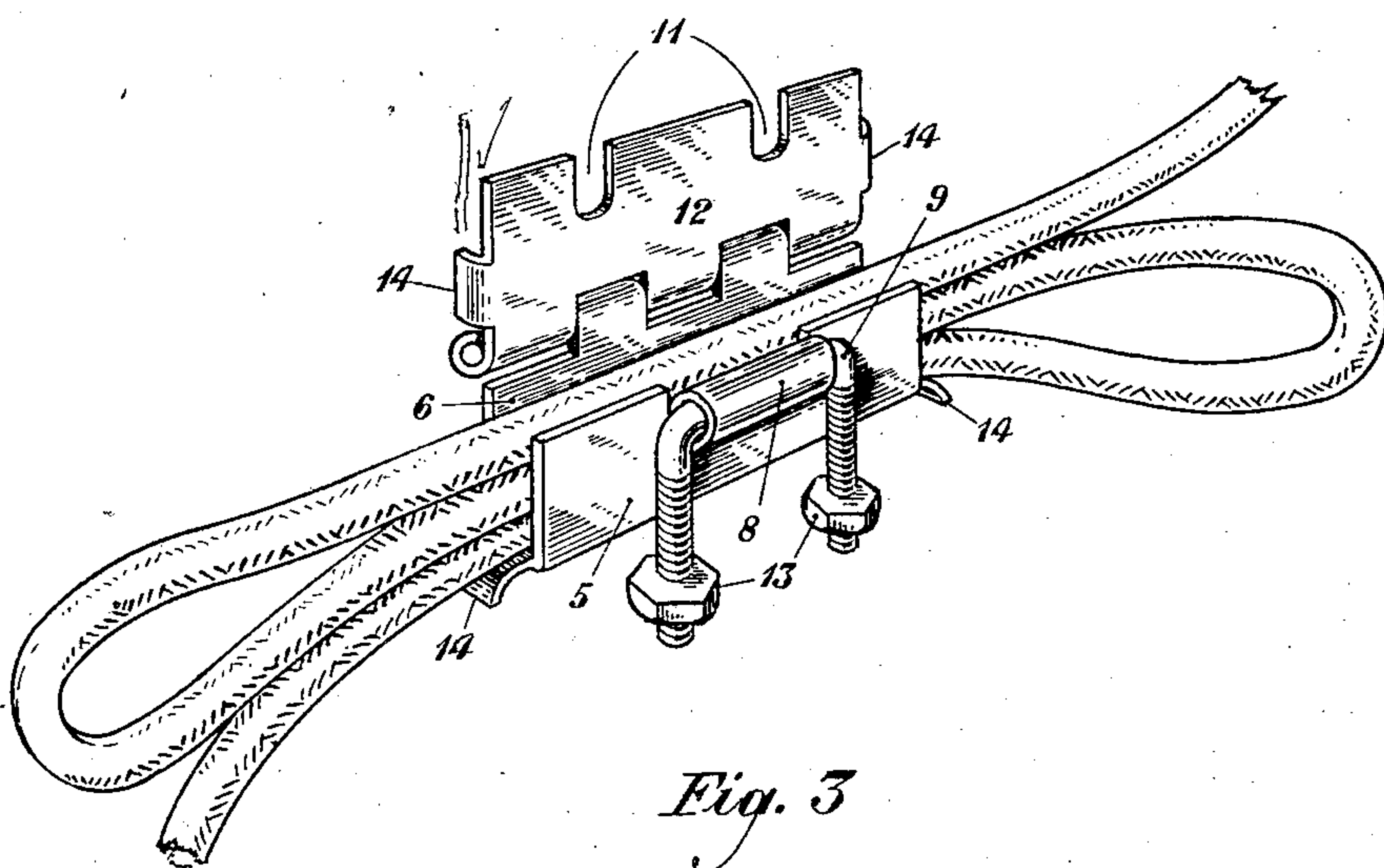


Fig. 3

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UNITED STATES PATENT OFFICE.

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WIRE CLAMP.

Application filed December 3, 1925. Serial No. 73,001.

This invention relates to improvements in clamps particularly adapted for use in clamping or supporting wires together, especially those employed for conducting electric currents.

One of the objects of the invention is to provide an improved device of this class having efficient and durable clamping means for securing the wire without injury to the wires, and which may be readily adapted for use with different sizes of wires or conductors.

A further object consists in providing a device of comparatively simple and inexpensive construction which may be readily and quickly applied to wires or cables when they are in a desired position.

These and further objects will be apparent from the following description when considered in connection with the accompanying drawing, in which one embodiment of the invention is illustrated.

Referring to the drawing, Figure 1 illustrates a side elevation of the improved clamp with wires positioned therein; Fig. 2 is an end view taken on the line 2—2 of Fig. 1 looking in the direction of the arrows, and Fig. 3 is a perspective view showing the clamp in open position with wire placed therein.

The clamp may be composed from suitable metal such as brass or the like, and its members may be of any desired length and thickness.

In the drawing, the lower portion of the clamp is indicated as comprising a flat bottom portion with an upturned flange 5 on one side and a parallel extension 6 on the opposite or rear side of the clamp. A longitudinal groove 7 is formed between the members 5 and 6, and may be of any desired width and depth, and while in the present instance this groove is shown as substantially square formation, it may be rounded or otherwise suitably shaped.

A lip extends upwardly from the center section of the flange 5, and is bent outwardly therefrom to form a tubular portion 8, as more clearly indicated in Fig. 2. The tubular portion 8 has a substantially U-shaped bolt or clip 9 pivotally mounted therein, and the extremities of the bolt member in operative position extend vertically from their pivoted portion, and pass through suitable

apertures such as U-shaped slots 11 in a flat rectangular clamping plate 12. These extremities are preferably screw-threaded, and are adapted to receive nuts 13, which rest flatly against the upper surface of the clamping plate. The clamping plate 12 as shown in Figs. 1 and 2 lies in a horizontal plane when in closed position, and is hinged at its rear portion as indicated, or in any other desired manner. When the plate 12 is in closed position, it covers the longitudinal groove in the clamp.

The ends of the bottom portion of groove 7 and clamping plate 12 are preferably flared, such as for example, by the provision of curved lips 14 which are oppositely positioned with respect to each other on the ends of said members. The members 14 are provided for the purpose of effecting a gradual release of the clamping pressure exerted on the wire or wires contained within the clamp, and thus prevent any sharp bend or cutting of the wires or their covering at the points where they leave the clamp.

To attach the clamp to wires or cables, the nuts may be loosened so that the extremities of the bolt member disengage the slots in which they are positioned, and permit the outward and downward pivotal movement of said bolt, and thus allow the clamping plate to be lifted so that the clamp is in open position. The wires are inserted in the clamp so that they are seated in the longitudinal groove, after which the bolt is turned upwardly so that its extremities are positioned in the slots in the clamping plate. The nuts are then turned and tightened against the upper flat surface of said plate to force said plate downwardly upon the seated wires with sufficient pressure to securely clamp the wires in position within the improved device.

With this improved construction it will be apparent that the wires may be readily inserted in the clamp by the use of one hand, while the other hand is left free to tighten the nuts on the bolt. Furthermore, the use of the particular bolt described presents the distinct advantage in that it requires no holding while the nuts are being turned down, and the use of wire lashing or tie wire is eliminated.

While the arrangements of this invention have been illustrated as embodied in a cer-

tain specific form which has been deemed desirable, it will be understood that they are capable of embodiment in many and widely varied forms without departing from the spirit of the invention, as defined in the appended claims.

What is claimed is:

1. In a clamp for wires, a main portion comprising a groove for said wires, and a hinged member and a pivotal member associated with said main portion, said hinged member and pivotal member cooperating with each other to retain the wires in clamped position in said groove, and means associated with said groove member and said hinged member for effecting a gradual release of the clamping pressure exerted on

said wires at points where they leave the clamp.

2. In a clamp for wires, a main portion comprising an elongated groove member of a substantially U-shape cross-section for seating said wires in a longitudinal position therein, a plate member pivotally connected with the groove member, and a pivotal member associated with the side of the groove member and engaging the opposite plate member to hold the wires in clamped position between the groove member and plate member.

In testimony whereof, I have signed my name to this specification this 1st day of December 1925.

JOHN A. RAPELJE.