E. S. DAMON.

ELECTRIC WIRE CLAMP.

APPLICATION FILED SEPT. 27, 1915.

1,282,383. Patented Oct. 22, 1918.

Fig. 1.

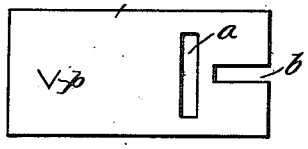


Fig. 2.



Fig. 3.

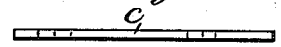


Fig. 4.

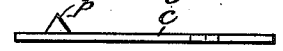


Fig. 5.

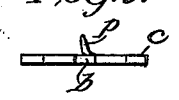


Fig. 6.

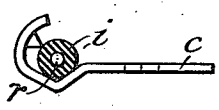


Fig. 7.



Fig. 8.

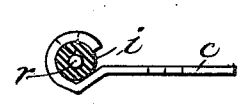


Fig. 9.



Fig. 10.

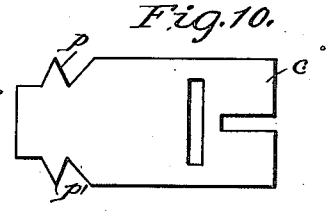


Fig. 11.

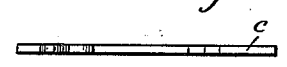


Fig. 12.

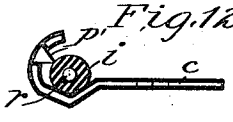


Fig. 13.

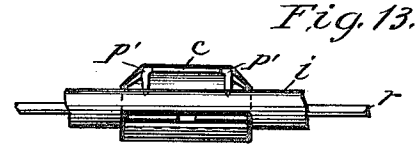


Fig. 14.

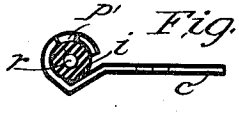


Fig. 15.

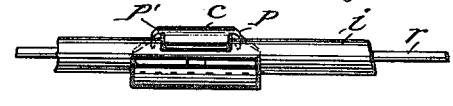


Fig. 16.

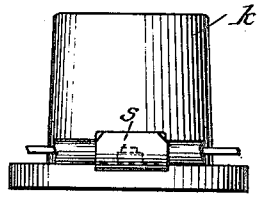
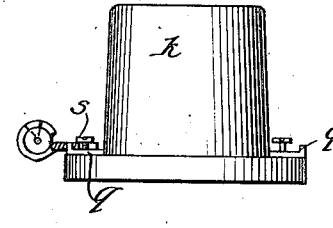


Fig. 17.



Witnesses,
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UNITED STATES PATENT OFFICE.

EDSON S. DAMON, OF COUNCIL BLUFFS, IOWA.

ELECTRIC-WIRE CLAMP.

1,282,383. Specification of Letters Patent. Patented Oct. 22, 1918.

Application filed September 27, 1915. Serial No. 52,932.

To all whom it may concern:

Be it known that I, EDSON S. DAMON, a citizen of the United States, residing at Council Bluffs, in the county of Pottawattamie and State of Iowa, have invented a new and useful Electric-Wire Clamp, of which the following is a specification.

My invention relates to improvements in electric wire clamps in which a single piece of metal is employed to grasp an electric wire for the purpose of connecting to electric attachments; and the objects of my invention are,

1. To provide a clamp for an electric wire which will obviate the necessity of the removal of the insulation.

2. To provide such a clamp that will firmly hold the wire and attach to any ordinary commercial socket or fixture.

3. To provide such a clamp that connection can be made with the ordinary fixture or commercial socket, with an insulated wire by the use of a pair of ordinary electrician's pliers.

4. To provide such a clamp that is partially or wholly insulated, except where the connection to fixture or commercial socket is made.

I attain these objects by the device illustrated in the accompanying drawing in which—Figure 1 is a plan of the blank, out of which the metal clamp is formed; Fig. 2 is an end elevation of such blank; Fig. 3 is a side elevation of such blank; Fig. 4 is a side elevation of such blank, showing a projection for forming the connecting point; Fig. 5 is an end elevation of the blank, shown in Fig. 4; Fig. 6 is a side elevation of the clamp ready for application; Fig. 7 is an end elevation showing the clamp as in Fig. 6; ready for application to the insulated wire; Fig. 8 shows the clamp in position on the insulated wire, with the point in contact; Fig. 9 is an end elevation, showing the clamp in position as in Fig. 8; Fig. 10 is a side elevation of a blank, having a plurality of points; Fig. 11 is a plan of the blank shown in Fig. 10; Fig. 12 shows the clamp of the form shown in Fig. 11, with more than one point ready for application to an insulated wire; Fig. 13 is an end elevation of the clamp as shown in Fig. 12, ready for application; Fig. 14 is a side elevation of the clamp, as applied to an insulated wire; Fig. 15 is an end elevation of the clamp as applied to an insulated wire; Fig. 16 is a side elevation of a commercial socket, showing an end elevation of the clamp attached to the socket and Fig. 17 is a side elevation of a commercial socket showing a side elevation of the clamp attached to the socket.

Similar letters refer to similar parts throughout the various views. In the use of wires for temporary street lighting and lighting for temporary purposes, insulated wire is bared of the insulation at intervals, and the wire caught between the binding screw and plate of the ordinary socket or connection. The use of wire in this connection renders the work of making the connections excessive, and is apt to more or less cut or injure the wire and thus reduce its strength, and prevents the wire from again being used for a similar purpose, unless the bared places on the wire come at the right position for the additional use.

My invention consists of a clamp formed of a single piece of metal, which may be insulated by any suitable gum or wax insulating material. The blank of which the clamp is made, has a slot *b*, adapted to slip under the binding screw *s*, of an ordinary commercial socket *k*. The blank is also slotted at *a*, to receive the projection of the binding plate *q*, so that the baring of the binding screw *s*, is full upon the clamp *c*. A portion of the blank or plate from which the clamp *c*, is made, is pressed or stamped out to form a point *p*, or more than one point may be formed, as shown in Figs. 10, 11, 12, and 14, two of which are on the edges of the plate, of which the clamp *c* is formed.

The clamp *c*, is formed as shown in Figs. 6 and 12, with the depression across the same to receive an insulated wire *i*, and the point *p*, or *p* and *p'* are arranged to touch the outer portion of the insulation of the insulated wire *i*. The clamp *c*, is so curved and arranged as shown in Figs. 6, 7, 12 and 13, that when a pair of ordinary pliers is applied underneath the clamp and on the upper end of it, both the points *p*, or *p* and *p'*, the points *p*, or *p* and *p'* are pressed down into and through the insulation of the wire *i*, in contact with the electric wire *r*, thus making contact without removing the insulation, except where the points *p*, or *p* and *p'* cut the wire *r*, after which the clamp will take the shape as shown in Figs. 8, 9, 14 and 15.

The clamps are formed out of a single

piece of metal. They may be provided with insulating substance, except where the binding screw *s*, comes and the points *p*, or *p* and *p'*, which are left free from the insulating material, if insulation is used. They are formed as shown in Figs 6 and 7 or 12 and 13, so that the insulated wire *i*, may be slipped in and the proper depression made under the points *p*, or *p* and *p'*. The clamp may be attached by the binding screw *s*, to the socket connection *k*. The insulating wire may then be placed in the clamp *c*, under the points *p*, or *p* and *p'*, by a simple pinching of the pliers the clamp *c*, is bent or pressed down to the insulated wire *i*, until the points *p*, or *p* and *p'* press through the insulation and come into contact with the insulated wire *i*.

In case it is desired to use the wire for other purposes, by engaging the end of the clamp *c*, with an ordinary pair of pliers, it can be opened from the form shown in Figs. 8 and 14, back to the form shown in Figs. 6 and 12, and the insulated wire *i*, may then be slipped out. The clamp may, by unscrewing the binding screw *s*, be slipped out and disconnected from the socket or connection *k*.

What I claim and desire to secure by Letters Patent, is

1. An electric wire contact clamp formed of a single piece of metal and having a hook at one end and having one or more points pressed out of the metal near the free end of the hook, said points adapted to be pressed through the insulation of an insulated wire within said hook by bending said hook about said wire, said hook having a free portion adapted to be fastened to contact terminals.

2. An electric wire clamp formed of a single piece of metal and having a hook at one end and haping one or more points adapted to be pressed through the insulation of an insulated wire within said hook when said hook is closed about said wire and a slot therein adapted to receive a binding screw.

3. An electric wire clamp formed of a single piece of metal and having a hook at one end and having one or more points pressed out of the metal near the free end of the hook, said points adapted to be pressed through the insulation of an insulated wire within said hook when said hook is closed about said wire and a slot in the end opposite the hook adapted to receive the binding plate of a commercial socket or fixture.

4. A metal clamp formed of a single piece of metal, having one or more points adapted to be pressed through the insulation of an insulated wire and form contact with the same, and a slot adapted to receive the binding plate of a commercial socket or fixture, said clamp being covered with an insulating gum or substance, except the points thereof and the said slot where the same is adapted to make contact with said binding screw.

EDSON S. DAMON.

Witnesses:
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WILLIAM PETERSON.