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JOHN H. KLI EGL, OF NEW YORK, N. Y.

CABLE-CLAMP.

1,041,300.

Specification of Letters Patent.

Patented Oct. 15, 1912.

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To all whom it may concern:

Be it known that I, JOHN H. KLI EGL, a citizen of the United States, residing at New York, in the county and State of New York, have invented certain new and useful Improvements in Cable-Clamps, of which the following is a full, clear, and exact description.

My invention relates to a cable-clamp for plug switches and cut-out plugs, and is essentially an improvement upon and especially designed for the form of plug switch described in my prior patent, No. 963,733, dated July 5, 1910. The clamp is not limited however to such a construction as it is capable of use with other analogous devices such as junction boxes, connector casings, etc.

One object of my invention is to provide a clamp for a plug in which the insulation at the ends of the conductors shall be effectively protected, so as to prevent raveling, undue wear, or other injury thereto.

Another object of my invention is to provide an improved clamp so that the connections of the conductors and contacts shall be relieved substantially of all strain, such for example as might otherwise be exerted on such connections when the cables are grasped and pulled to withdraw the plug from the device into which it has been inserted or where, as in stage connectors, it is promiscuously thrown about in setting up and handling the scenery.

A still further object is to provide a clamp for a cable whereby all strain upon the plug itself in clamping the cable therein is avoided which permits the use of plugs that are fragile in character and incapable of withstanding any degree of strain.

Another, and very important feature or object of my invention is to provide a clamp for devices of this kind which will allow the use of cables of different sizes to be used in the same plug, junction box, etc.

Other objects of my invention are to provide a clamp of this character which shall be simple and compact, and capable of being easily and quickly attached to the cables.

One embodiment of the present invention is disclosed in the structure illustrated in the accompanying drawings, in which like characters of reference denote corresponding parts in all the views, and in which—

Figure 1 is a side view of my improved device shown in connection with a plug

switch. Fig. 2 is an edge view of Fig. 1 with parts of the plug broken away to show the relation of parts in assembled form. Fig. 3 is a section on line A—A of Fig. 1. Fig. 4 is a detail. Fig. 5 shows a modified form of clamp.

Referring to the drawing in detail 1 designates the body of a plug in connection with which I have chosen to represent my device, said plug being made of the usual insulating material. The body 1 has a head 2 preferably integral therewith and of the same material, the body and the head being substantially of rectangular cross-section. In the top or head 2 is an aperture or socket 3 large enough to receive the end of the conductor to which the plug is attached, in the present instance a cable 4, containing two conductors, 5 and 6. The insulation at the end of the cable is inclosed, as will more fully appear later, in the top of the plug and so protected from raveling or other injury.

Extending downwardly and laterally from the socket 3 are passages 7, 8 opening preferably at the shoulders 9 and 10 at the base of the top or head portion. The conductors 5 and 6 are received by these passages and when inserted through these passages they are connected to the contacts 11 and 12 through the instrumentality of the socketed terminal members 13 and 14 as shown. Preferably the passages are made large enough to permit the terminal members to be passed therethrough from the socket 3, so that the terminal members may be attached to their conductors first, and the latter then inserted into the plugs through said passages.

For the purpose of binding the cable firmly in the socket 3 to eliminate all strain upon the conductors 5 and 6 below the socket as well as the terminal members and contacts the upper portion of the head is cut away on both sides a sufficient depth to expose the cable in the socket, the socket, as understood, being large enough to receive the maximum size of the cable to be used with the particular form of plug. By cutting away both sides of the top, as shown, there results a head having two upwardly protruding members or projections 15 and 16. These protruding members are perforated as shown at 17 and 18 adapted to receive internally screw-threaded extensions or members 19 and 20 on clamp 21. This