June 3, 1930. I. WOLARSKY 1,761,510

TOOL FOR MANIPULATING LAMP SOCKET PARTS

Filed Oct. 16, 1926

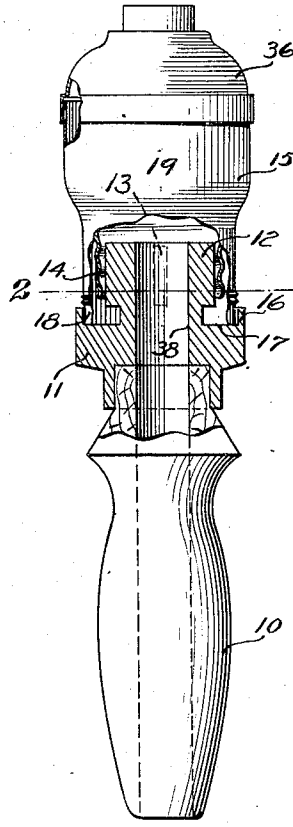


FIG. 1.

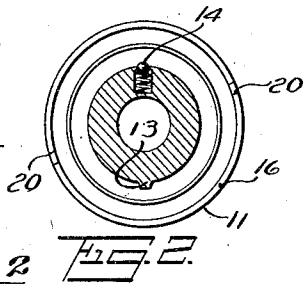


FIG. 2.

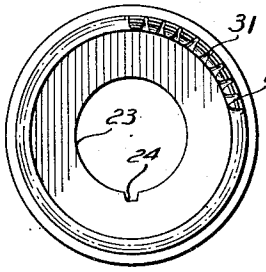


FIG. 4.

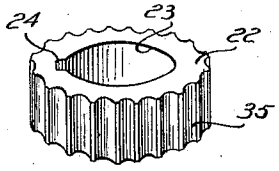


FIG. 6.

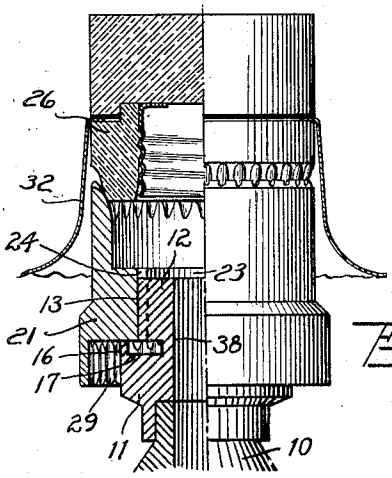


FIG. 5.

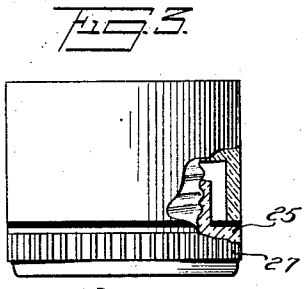
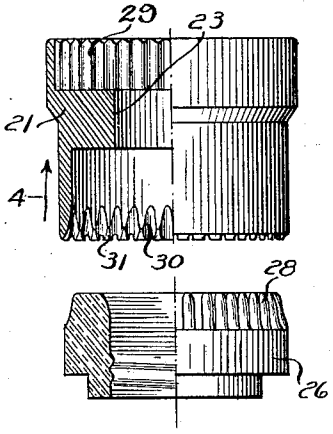


FIG. 3.



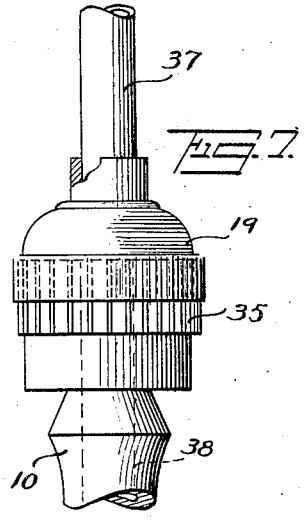


FIG. 7.

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TOOL FOR MANIPULATING LAMP-SOCKET PARTS

Application filed October 16, 1926. Serial No. 142,001.

The present invention relates to tools for manipulating lamp-socket parts and is more particularly directed toward the provision of a kit of tools useful in installing and assembling brass-shell lamp sockets and porcelain sign receptacles.

The electrician is frequently called upon in assembling and installing lighting fixtures or lighting equipment to attach such lamp sockets and sign receptacles to their supports. The kit of tools contemplated by the present invention is arranged so that the electrician can carry with him a single handle and a number of tools or turning members which will facilitate installing the caps of brass shell lamp sockets on the supporting stems, fixing the socket covers in place about the socket contacts, as well as the installation of the sign receptacles. A kit of these tools or turning members comprises a suitable number of tools that will fit the standard sign receptacles and lamp socket caps. It has been found that all these turning members, however, may be used with a single handle of the proper design so that it is necessary to carry only one handle; the electrician can merely remove one tool and replace it with another. The present invention preferably contemplates a quick detachable connection for this purpose, although for some purposes, the turning member and handle may be made without the quick detachable connection.

Other and further objects of the invention will be pointed out as the description proceeds.

In the accompanying drawings, there is shown for purposes of illustration, a form of handle to interchangeably hold the turning members, as well as two typical forms of turning members or tools, and the use of the handle and such members in manipulating the socket parts.

In these drawings:

Fig. 1 is a sectional view through the handle, and showing the use of the handle in fixing the socket cover in place about the socket;

Fig. 2 is a sectional view on the line 2—2 of Fig. 1 showing the head or upper end of the handle only;

Fig. 3 is a sectional view with parts in elevation showing a form of turning member particularly arranged for operating on either of two forms of porcelain sign receptacles in common use, the receptacles being indicated adjacent the turning member;

Fig. 4 is an end view of the turning member of Fig. 3 taken in the direction of the arrow 4;

Fig. 5 is a sectional view, with parts in elevation, showing a sign receptacle mounted in a shell or rosette, and showing the use of a tool in tightening the sign receptacle in place;

Fig. 6 is a perspective view of a form of turning member for use in tightening the caps of brass sockets onto the supporting standard; and

Fig. 7 is an elevational view showing the use of the tool of Fig. 6.

As illustrated in Figs. 1 and 2, a hollow wooden handle 10 is provided with a metal head 11 securely mounted thereon. The upper end 12 of this head is substantially cylindrical, the axis of the cylinder coinciding with the axis of the handle 10; the head 12, however, is not strictly cylindrical, being non-circular by a key 13 and is provided with a spring-pressed ball 14. The size of the upper end 12 of the head and the key 13 is such that this part of the head will pass inside the screw shell contact 14 of a lamp socket, such as indicated at 15. The head 11 of the tool handle is also provided with a skirt or rim 16 and is recessed at 17, these parts being of the proper diameter and depth to receive the lower end 18 of the cover 19 of the socket 15. The side walls of the skirt 16 are slitted as indicated at 20 to provide spring members which hold the end of the socket cover in place on the tool. The tool handle and head are adapted to receive various turning members such as shown at 21 and 22 in Figs. 4 and 6. These turning members have holes 23 and keyways 24 to fit the head of the tool handle, and take various forms and shapes depending upon the particular work for which they are intended.

The turning member 21 shown more particularly in Figs. 3, 4 and 5 is designed for

use with porcelain sign receptacles. The turning member 21 has a central hole 23 and keyway 24, as shown in Fig. 4, whereby the turning member 21 is mounted on the head 12, the head 12 fitting into the hole 23, the key 13 on the head 12 fitting into the keyway 24 on the turning member, whereby turning of the handle 10 will turn the head 21. The standard sign receptacles on the market are made either as indicated generally at 25 in Fig. 3, or are provided with a ring such as indicated at 26 in Figs. 3 and 5. The ring of the receptacle 25 has circumferentially disposed corrugations 27, while the ring 26 used in the more common form of sign receptacle has corrugations 28 disposed about a conical surface. The turning member 21 is provided with internal corrugations 29 to fit the external corrugations 27 on the ring of the receptacle 25, while the opposite end of the turning member 21 is outwardly flared a small amount and is provided with corrugations 30 which fit the sloping corrugations 28 on the receptacle ring 26.

The outside diameter of the latter mentioned end of the turning member 21, is, as indicated in Figs. 3 and 5, made the same as the outside diameter of the ring 26 on the sign receptacle. The ends of the corrugations 30 take the form of teeth such as indicated at 31 so that the tool may be fitted closely onto the porcelain. These teeth may be used to engage with lugs carried by certain types of metallic rings used around a lamp socket. It is common to use these sign receptacles in shells or rosettes which are so shaped that the porcelain ring lies very close to the side walls of the shell as indicated in Fig. 5. By making the outside diameter of the turning member no greater than the outside diameter of the ring, it will be seen that one can insert the turning member in restricted areas in which it would be impossible to insert fingers or any tool larger in diameter than the sign receptacle. It will thus be apparent that the turning member may be successfully used to tighten or loosen the porcelain rings in the sign receptacles of this type, no matter how little room is available in the shell in which the sign receptacle is being mounted.

Manufacturers of lamp sockets provide them with caps and shells having various forms of locking devices and in various sizes, and on account of the various conditions to be met, a tool made to fit one socket construction is not entirely satisfactory.

Fig. 6 illustrates a detachable turning member more particularly designed for use in tightening the caps of lamp sockets onto their supporting stems. Turning members of this type are provided with external corrugations 35 extending from one end to the other so that the member may fit inside the corrugations to be found on a socket cap 19 no matter which way it is placed on the handle. The tool head is preferably provided with a hole 38 so that the wires protruding from the supporting stems 37 may enter into this hole, and, if necessary, into the hole in the handle, while the cap 36 is being threaded into the stem. To attach the cap on the stem 37 it is merely necessary to place the proper turning member 22 on the handle, insert it into the cap and tighten the cap in place.

The tool above described is also suitable for attaching the covers of sockets to the cap of the lamp socket. The lower end of the socket cover may be placed in the upper end of the tool handle as indicated in Fig. 1 and the socket cover forced into position inside the cap to lock it in place, thereby making it unnecessary for a person to push against the sharp lower edge of the socket cover with the hand.

Inasmuch as the head 12 of the turning member is made of such size that it will pass inside the shell contact of a lamp socket and as the lower end of the socket cover is of smaller diameter than the inside of the socket cap, it is obvious that the turning members will rest on the upper end of the skirt 16.

The present drawings show a tool handle which is adapted to interchangeably receive a number of different shaped turning members suitable for use in various operations customarily met in assembling lighting fixtures and lighting equipment. By providing a single handle and interchangeable turning members, it is possible to quickly attach a tool for whatever operation it is desired to perform. It is of course obvious, however, that where interchangeability is not necessary one can provide tools in which the turning element is permanently attached to the handle, or in which it cannot be quickly removed. It is obvious that the turning members for use with the porcelain receptacles need not have both sets of corrugations as shown in Fig. 3. One could provide a turning member having a single set of corrugations to fit the desired sign receptacle.

It is obvious that the invention may be embodied in many forms and constructions, and I wish it to be understood that the particular forms shown are but a few of the many possible forms. Various modifications and changes being possible, I do not limit myself in any way with respect thereto.

What is claimed is:

1. In a tool for manipulating lamp-socket parts, a handle and a head carried by the handle, the head having a non-circular upper end of small diameter for detachably and non-rotatably supporting a turning member, and an upwardly directed rim for engaging with the lower end of a metal lamp socket cover for placing the cover on the socket, the said small diameter upper end being within and above the rim capable of entering into the lamp socket.

2. In a tool for manipulating lamp-socket parts, a handle, a head carried by the handle, the outer free upper end of the head having a peripheral rim for receiving a socket cover to facilitate assembling it with the other parts of a lamp socket, and a non-circular extension of a size to pass into the lamp socket, the extension being within and above the rim arranged to detachably and non-rotatably support a turning member which rests against the said rim.

3. In a tool for manipulating lamp-socket parts, a handle, a head carried by the handle, the outer free upper end of the head having a peripheral rim for receiving a socket cover to facilitate assembling it with the other parts of a lamp socket and a non-circular extension of a size to pass into the lamp socket, a turning member non-rotatably supported on the extension, and spring means for providing a quick detachable connection with the turning member.

4. A tool for manipulating sign receptacles comprising a handle, a head thereon, the outside diameter of the head being substantially the diameter of the outside of the outer end of the sign receptacle, the head having a recessed end having conical side walls provided with corrugations to fit the corrugations on the outer end of the sign receptacle, the corrugations ending in teeth at the end of the head.

5. A tool for manipulating sign receptacles, the outside diameter of the tool being substantially the outside diameter of the end of a sign receptacle, the end of the tool having teeth and interiorly disposed longitudinally extending oblique ridges adapted to enter into the corrugations on the outer conical end of the sign receptacle.

6. In a tool for manipulating lamp socket parts, the combination of a handle, an open-ended turning member detachably and non-rotatably positionable on the handle, the opposite ends of the turning member being provided with different types of longitudinally extending corrugations, each set of corrugations being adapted to engage with a particular type of sign receptacle, the turning member being reversible with respect to the handle whereby either set of corrugations may be placed in operative position.

7. In a tool for manipulating lamp socket parts, the combination of a handle having a head freely insertible into the shell contact of a lamp socket, and having an outer rim to frictionally receive the metal shell of the lamp socket, whereby a tool for manipulation of the socket is provided, and an open-ended turning member detachably engageable with said head, means for securing the head and the turning member against relative rotary movement, the outer end of the turning member being substantially larger than a metal shell lamp socket, and provided with circumferentially arranged corrugations, for engagement with the corrugations on the usual porcelain collar of a sign receptacle, the handle and turning member together providing a tool for manipulation of said porcelain collar.

8. In a tool for manipulating lamp socket parts, the combination of a handle, an open-ended turning member, shaped at one end to engage detachably and non-rotatably with the handle, the other end having a diameter substantially that of the usual porcelain collar of a sign receptacle, said end of the turning member being outwardly flared a small amount, and longitudinally extending corrugations terminating in a row of teeth at the extreme end of the flared part.

9. In a tool for manipulating lamp socket parts, the combination of a handle provided with a substantially circular head, a turning member provided with a substantially circular hole into which said head is adapted to fit, means for securing said head and turning member so that they turn together, the turning member at its outer end having spaced gripping corrugations formed therein, the corrugations being spaced apart so as to fit between the corrugations on the porcelain collar of a sign receptacle.

10. In a tool for manipulating lamp socket parts, the combination of a handle provided with a substantially cylindrical head, the axis of the head coinciding with the axis of the handle, a turning member having a hole adapted to take over said cylindrical head, key means for securing the head and turning member so that they rotate together, the turning member at its outer end having spaced gripping corrugations adapted to engage the corrugations on the porcelain collar of a sign receptacle.

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