

[54] **PLUG JACK NUT TOOL**  
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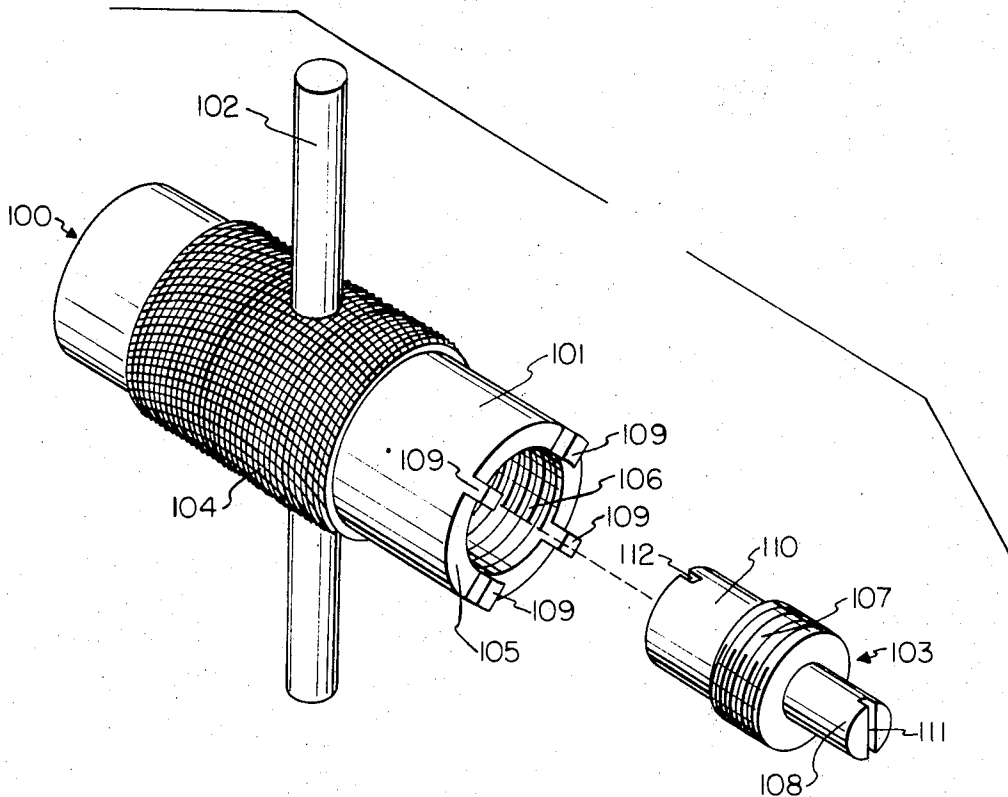
[52] U.S. Cl. .... **81/90 C**  
 [51] Int. Cl. .... **B25b 13/48**  
 [58] Field of Search ..... 81/90 R, 90 B, 90 C, 81/90 D, 71

[57] **ABSTRACT**

A tool for removing and inserting telephone plug jack nuts of more than a single type of jack, where the jacks have different bore diameters. The tool consists of a plurality of spanner type lugs on a circumferential ring with a double ended central guide pin. Each end of the guide pin is of a diameter to fit into a different particular size of bore.

[56] **References Cited**  
**UNITED STATES PATENTS**  
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**1 Claim, 3 Drawing Figures**



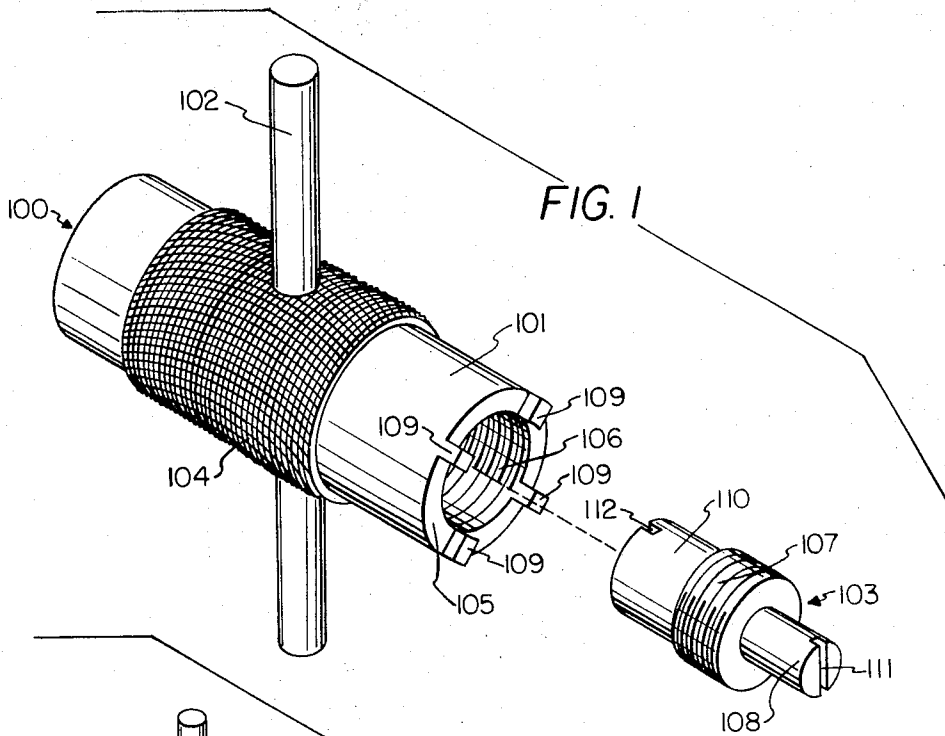


FIG. 1

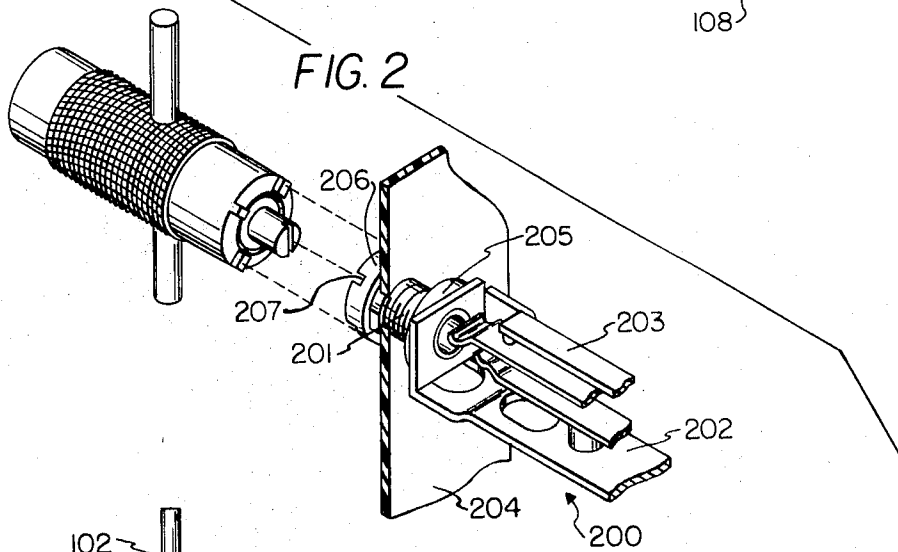


FIG. 2

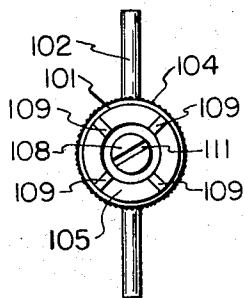


FIG. 3

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## PLUG JACK NUT TOOL

## BACKGROUND OF THE INVENTION

## 1. Field of the Invention

This invention pertains to tools and more specifically to a specialty tool for use by maintenance people in the telephone industry for removing or installing a plug jack nut.

## 2. Description of the Prior Art

The jack assembly requiring this type of wrench is of the general type designated 200 having a threaded brass sleeve 201 attached to a spring mounting frame 202. This sleeve as used at present comes with at least two internal diameters, for use with two different type plugs. The spring mounting frame has on it the springs 203 for making contact with a plug inserted into the jack assembly as well as other auxiliary springs. This assembly must be mounted in a metal panel 204 and therefore includes an insulating spacer 205 and an insulating plug jack nut 206 having castellations 207. This nut 206 is inserted into an opening in the panel and onto the external threaded portion of the sleeve 201 to secure the jack assembly onto the panel while maintaining electrical isolation therefrom.

As the sleeves of these jacks become worn or to gain better access to the spring assemblies of the jack, it becomes necessary to remove the nut in order to move the jack away from the panel. To do this a spanner type wrench with a central guide is required.

The conventional means for performing these operations is to use a square drive mechanic's type 51 tool handle or driving tool such as for example "Snap-On Tool Corporation" part No. TM-40A with socket type assemblies for each particular type of plug jack associated nut.

The drawback with these conventional tools is first of all that the maintenance personnel must carry a number of separate components with the constant possibility of loss or misplacement of the components. Further it should be understood that in the use of these tools a certain amount of pressure in the axial direction of the tool is necessary for the lugs to maintain a firm contact with the notches in the nut as well as that in the rotary direction to unscrew the nut from the sleeve of the jack.

## SUMMARY OF THE INVENTION

It is, therefore, one object of the present invention to provide a unitary tool that is usable with the different size jacks.

It is a feature of the present invention to provide a tool wherein a guide pin has a different diameter at each end and which may readily be reversed in the tool to utilize either end.

It is another feature of the present invention to provide a handle wherein the body of the tool includes a crosswise disposed member that during the turning movement of the tool, the palm may apply pressure to the central portion of the tool while the fingers can readily apply a rotary pressure via the cross member.

## BRIEF DESCRIPTION OF THE DRAWING

FIG. 1 is a perspective view with the guide pin separated from the body.

FIG. 2 is a perspective view of the tool and the jack showing the relative cooperating elements.

FIG. 3 is a plan view of the work end of the tool.

## DESCRIPTION OF THE PREFERRED EMBODIMENT

The tool generally designated 100 in FIG. 1 comprises a cylindrical body 101 having a knurled portion 104. A crosspiece 102 is mounted in the body 101 a short distance from the end face 105, through which is a drilled and tapped cavity 106. A guide pin 103 is arranged to be inserted into the cavity 106 with the guide portion 108 projecting out. Also located on the surface 105 are a plurality of lugs 109 which are arranged to cooperate with the slots 207 in the face of the jack nut 206 when in engagement therewith, for applying a rotary motion thereto. A view of their relative positions may be had by glancing at FIG. 2.

The guide pin 103 has a central portion 107 that is threaded to mate with the thread in the cavity 106 of the main body portion 100. At each end of the guide pin 103 is a projection of reduced diameter 108 and 110. The diameter of end 108 is smaller and is equal to the opening diameter in a particular size of jack such as for example GTE Automatic Electric Co. Type D-b 42762-A, while the end 110 is of a larger diameter to properly fit into the opening of a jack such as GTE Automatic Electric Co. Type D-42763-A. The user has merely to thread this pin into the body of the tool with the desired end projecting out. To facilitate this operation each end 108 and 110 has a slot 111 and 112 respectively across its diameter.

After the guide pin is inserted the projecting end is inserted into the opening of the jack and turned to align the lugs 109 with the depressions 207 on the castellated plug jack nut which they are designed to enter. The user has now only to place his hand, with the palm applying a pressure to the back end of the body and the fingers about one end of the cross bar 102 and apply rotary motion thereto to unscrew the plug jack nut. After the necessary maintenance operations the jack may be remounted just as easily by the use of this tool. Further should it be required to work on associated equipment having jacks of another diameter, the maintenance man has only to use a screw driver to remove the guide pin and reinsert in into the body with the opposite end projecting. Thus, he has only a single specialty tool to carry about and not a plurality of tools comprised of sub components.

What is claimed is:

1. A spanner type plug jack nut wrench comprising: a cylindrical body portion having a slightly enlarged knurled central section, one end of said cylindrical body adapted to receive a threaded guide pin, the wall of said one end of said cylindrical body further including a plurality of lugs projecting axially therefrom, and a guide pin having a ring zone of larger diameter approximately at the axial center, said ring zone threaded to enter into and lock on to said one end of said body, said guide pin having a first end of a first diameter and a second end of a second diameter.

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