Dec. 8, 1936. W. T. PRITCHARD ET AL 2,063,338

BURNISHING TOOL

Filed April 1, 1936

FIG. 1

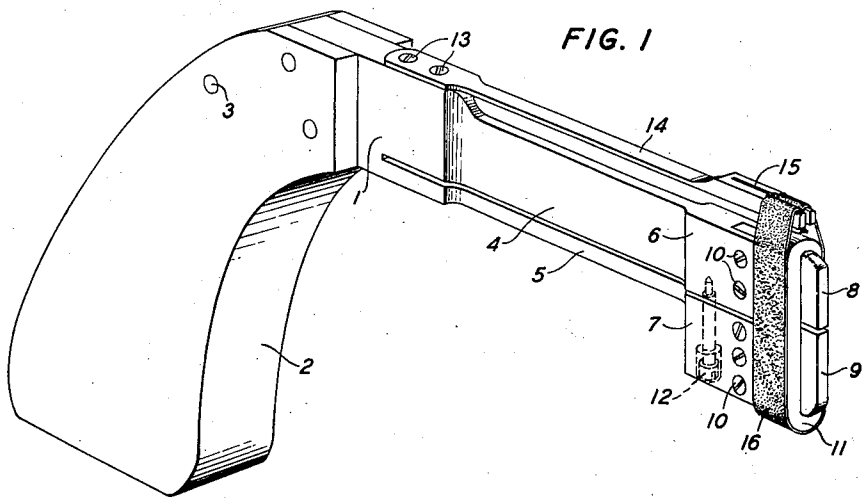


FIG. 2

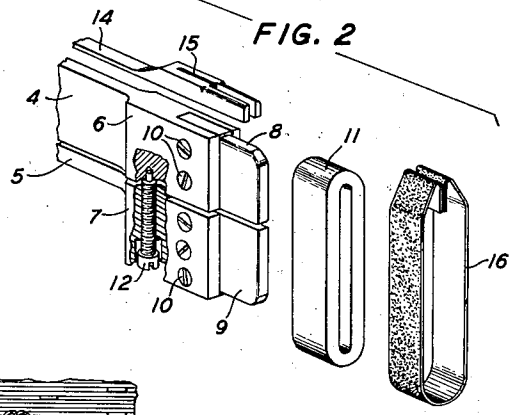
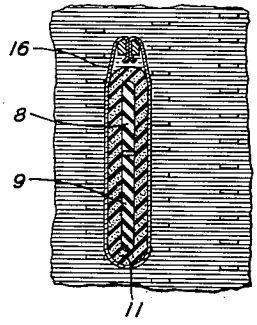


FIG. 3



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BURNISHING TOOL

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3 Claims. (Cl. 51—187)

This invention relates to a burnishing or cleaning tool and more particularly to a tool for cleaning and burnishing the contact surfaces of the terminals of selector banks.

Selector switches of the well known panel type, such for example as disclosed in Patent 1,123,695 granted January 5, 1915 to E. B. Craft and J. N. Reynolds, are installed in groups side by side on mounting frames. Each switch shaft is equipped with a plurality of sets of brushes and the brush sets of all switches on the same frame have common access to a flat bank of multipled terminals. The terminal bank is divided into as many horizontal sections as there are brush sets on each switch so that each horizontal bank section is allocated to the corresponding brush sets of the selector switches. Each bank section is provided with a plurality of vertical rows of sets of terminals with which a set of normally inactive switch brushes cooperate. These rows of terminals are multipled horizontally across the bank to be accessible to all of the switches on the frame. When a switch is operated a set of brushes is tripped for cooperation with the vertical rows of terminals of a bank section and the brushes are then advanced to successively engage the edges of the contacts to establish circuits thereover.

Considering the switch and bank structures as briefly described above, it will be apparent that it is essential to maintain the surfaces of the terminals with which the switch brushes engage in a bright, clean condition in order that there may be good electrical conduction between the brushes and contacts. It is therefore the object of the present invention to provide a tool by means of which the contact surfaces of the vertical rows of terminals may be burnished to remove dust or corrosion which would otherwise increase the contact resistance between such terminals and brushes and reduce the electrical efficiency of the circuits established thereover.

In accordance with the present invention the tool comprises a split arm having a pistol grip handle on one end and insulating blocks attached to the two sections of the arm at the other end, a heavy rubber band surrounding the blocks, a screw for spreading the two sections of the arm for varying the thickness of the rubber band, and a steel spring attached to the upper edge of the arm near the handle, in the bifurcated end of which may be secured the ends of a strip of abrasive cloth which may be passed around the rubber band and held taut by the spring. In using the tool the end thereof upon which the abrasive cloth is secured is inserted between two vertical rows of terminals of the contact bank and moved slowly up or down the entire height of the bank.

For a clearer understanding of the invention reference may be had to the following detailed description taken in connection with the accompanying drawing in which:

Fig. 1 is a side perspective view of the tool equipped with a strip of abrasive cloth in readiness for use;

Fig. 2 shows the end of the tool, partly in cross-section, with the rubber band and strip of abrasive cloth disassembled therefrom; and

Fig. 3 shows a portion of the face of a terminal bank and the manner in which the tool is applied for burnishing the terminals.

The tool comprises an arm 1 having a pistol grip handle 2 attached to one end thereof by the rivets 3. The arm is slit from a point adjacent the handle to the other end to form two sections 4 and 5, section 5 being narrow enough to permit it to be flexed. The ends of the sections are provided with slotted enlargements 6 and 7 within which narrow blocks 8 and 9 of insulating material are secured by the screws 10. The blocks of insulating material are provided for the purpose of preventing cross-connection between adjacent terminals of the bank when the tool is in use.

Surrounding the blocks 8 and 9 is a heavy band 11 of rubber, the thickness of which may be varied by the spreading of the outer end of the two sections of the arm 1 by the adjustment of the screw 12. Screw 12 is threaded into the enlarged portion 7 of the lower section 5 of arm 1 and its end engages in a recess in the enlarged portion 6 of the upper section 4 of the arm. When the screw is turned the lower section 5 of the arm is flexed and the insulating block 9 is thereby separated from the block 8, stretching the rubber band 11.

Secured by screws 13 to the upper edge of the arm 1 near the pistol grip is a steel spring 14. The free end of this spring extends to a point over the band 11 and is slotted as shown at 15 to receive the ends of a strip of abrasive cloth.

To prepare the tool for use the band 11 is slipped over the blocks 8 and 9 and a strip 16 of abrasive cloth or other suitable abrasive material is wrapped around the band 11. The spring 14 is then depressed and the ends of the strip 16 are engaged in the slot 15 of the spring. When pressure on the spring is now released the spring draws the strip 16 taut around the band. The

tool may now be applied to the terminal bank with its end positioned beneath the space between two adjacent vertical rows of terminals and then moved up or down between the rows of terminals. This movement of the tool draws the abrasive strip across the contacting edges of the terminals as disclosed in Fig. 3 thereby removing particles of dust, corrosion or roughness therefrom.

To adjust the tool for varying spacing between rows of terminals the screw **12** is turned as previously described to spread the blocks **8** and **9** and thereby stretch the band **11**. The stretching of the band will obviously result in reducing the thickness of its side walls and consequently the thickness of the abrasive end of the tool.

What is claimed is:

1. In a burnishing or cleaning tool, an arm having a handle connected to one end thereof and having the other end thereof slit longitudinally, an elastic band surrounding the slit end of said arm, adjustable means for expanding the slit end of said arm for varying the thickness of said elastic band, a strip of abrasive material surrounding said band and means for holding said strip of abrasive material upon said band.

2. In a burnishing or cleaning tool, an arm having a handle connected to one end thereof and having the other end thereof slit longitudinally, an elastic band surrounding the slit end of said arm, adjustable means for expanding the slit end of said arm for varying the thickness of said elastic band, a strip of abrasive material surrounding said band and a spring member secured to said arm and having a bifurcated free end within which the free ends of said strip are secured and by which said strip is held taut on said band.

3. In a burnishing or cleaning tool, an arm having a handle connected to one end thereof and having the other end thereof slit longitudinally, insulating blocks secured in the ends of the two sections of the slit end of said arm, an elastic band surrounding said insulating block, an adjusting screw for expanding the slit end of said arm for varying the thickness of said elastic band, a strip of abrasive material surrounding said band and means for holding said strip of abrasive material upon said band.

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