

(No Model.)

J. F. MEHREN.
ELECTRICAL INSTRUMENT TABLE.

No. 518,788.

Patented Apr. 24, 1894.

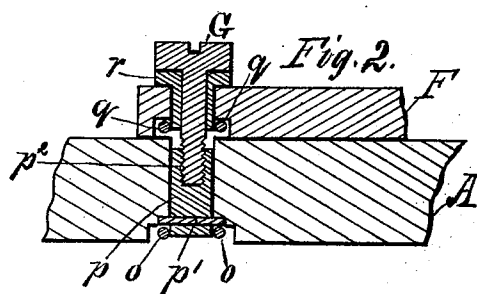
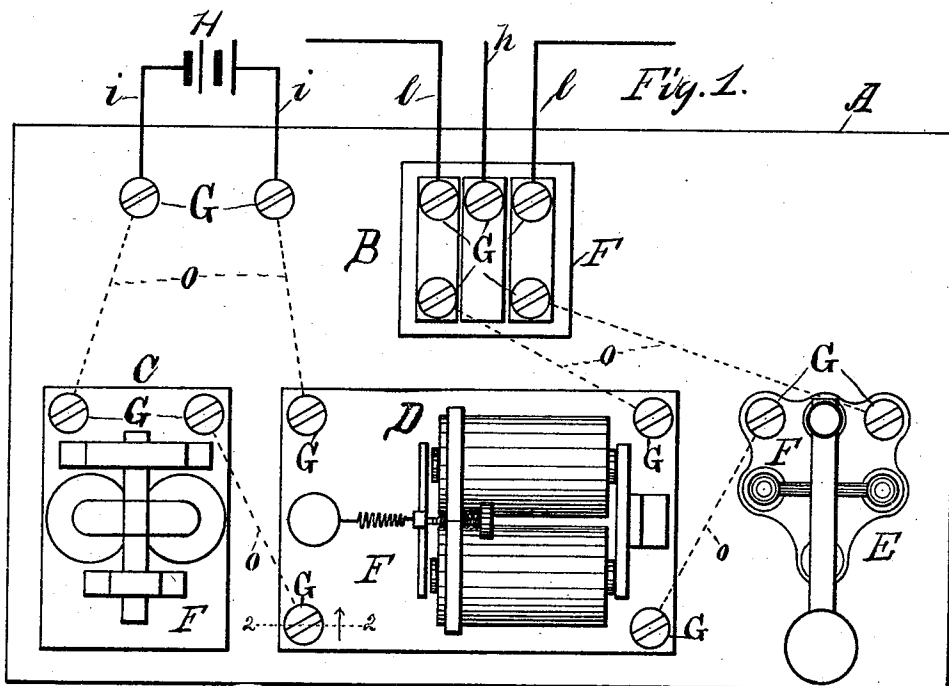


Fig. 4.

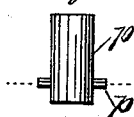
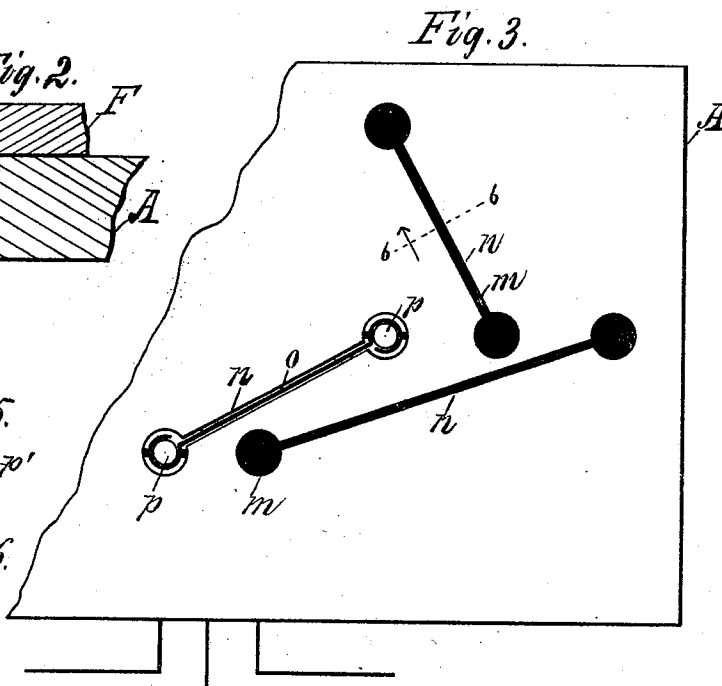
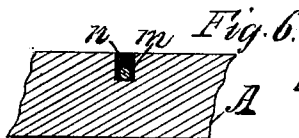


Fig. 5.



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UNITED STATES PATENT OFFICE.

JACOB F. MEHREN, OF CHICAGO, ILLINOIS, ASSIGNOR TO JOHN P. BARRETT,
OF SAME PLACE.

ELECTRICAL-INSTRUMENT TABLE.

SPECIFICATION forming part of Letters Patent No. 518,788, dated April 24, 1894.

Application filed February 7, 1893. Serial No. 461,339. (No model.)

To all whom it may concern:

Be it known that I, JACOB F. MEHREN, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Electrical-Instrument Tables, of which the following is a specification.

The object of my invention is to provide a table or other support for electrical instruments whereby the use of binding-posts, or analogous wire-connections which require the wires to be manipulated for attachment or disconnection, and the consequent inconvenience of such manipulation and danger of breaking the wires and of making false connections, shall be avoided.

Referring to the accompanying drawings: Figure 1 is a plan view in the nature of a diagram, showing a support intended to represent a table, having mounted thereon an ordinary set of Morse telegraphic instruments, comprising a lightning-arrester, a sounder, a relay, and a key, each on a suitable base. Fig. 2 is a section taken at the line 2 on Fig. 1 and viewed in the direction of the arrow. Fig. 3 is a plan view showing a broken portion of the under side of the table-top. Figs. 4 and 5 are views, respectively in side and end elevation, of a detail; and Fig. 6 is a broken section taken at the line 6 on Fig. 3 and viewed in the direction of the arrow.

By my improvement I provide a table, or other form of support, for a set of electrical instruments, with permanent connecting-wires, which need not be disturbed in either connecting or disconnecting any of the instruments, fastening of which into place causes the fastening means to connect the instrument in the circuit, and withdrawal of which fastening means, as preparatory to removing the instrument for purposes of repair, breaks the circuit.

A is the instrument-support, intended to represent, in the drawings, a table-top, which is preferably formed of wood or other insulating material.

B, C, D and E represent, respectively, a lightning-arrester, a sounder, a relay and a key, each of which is provided with a base F, which should be formed of insulating material. The base F of each instrument is provided, in lieu of binding-posts, with a suit-

able number of tubular metallic bushings *r* (Fig. 2) which are passed through openings in the base and should project, each at its opposite ends, beyond the upper and lower surfaces thereof. To these bushings the ends of the instrument-wires *q* are connected, as shown in Fig. 2.

The table A is provided, at points in its top corresponding with those at which the bushings *r* are provided in each instrument-base F, with metallic plugs or studs *p* (shown in Figs. 2, 4 and 5) which may be circular, or of other form, in cross-section; and each contains in one (the upper) end a threaded socket *p*² and may be provided, toward its opposite end, with a transverse metallic pin *p*'. Each plug *p* may be secured in the table-top A by driving it into a suitable hole therein, whereby the pin *p*' is embedded in the material of the table and thus secures the plug against turning and becoming loosened.

I make the necessary connections between the several instruments (or for one instrument, if only one be designed to be supported on the table) by means of wires *o* caused to connect the respective studs *p*, and which are laid and sealed up, as with gutta-percha *m*, in grooves *n* in the under side of the table-top, as more clearly represented in Fig. 3, wherein one wire is shown bared of the sealing-material for purposes of illustration. The dotted lines in Fig. 1 of the drawings indicate the positions of the interconnecting wires *o*.

Each instrument is fastened on the table by means of metallic screws *G*, or pins, passed through the bushings *r* in the base of the instrument into the coincident sockets *p*² in the studs *p*, whereby, moreover, electrical connection is made between the bushings and studs, and, the latter having the interconnecting wires *o*, as described, obviously, when all the connecting screws are in place, or in contact with their respective studs, the several instruments are electrically connected. And it will also appear that by unscrewing the connecting-screws, or withdrawing the connecting-pins, of any of the instruments from contact with their respective studs *p*, such instrument may be disconnected from the set; and the operation is performed without disturbing the wires leading to the other

instruments (though they are, for the time being, rendered inoperative) thereby avoiding danger of breaking wires, requiring them to be replaced by others, which is a frequent occurrence where the common form of binding-post is used for the instruments. Besides, my arrangement is particularly useful in setting complex instruments by reducing liability of mistaking wires and thus making false connections, which may produce serious consequences, especially with strong currents, such as those used in electric lighting.

To complete the representation displayed by Fig. 1 in the drawings, I show, at *l*, *l*, main-line wires, and an earth-wire at *h*, leading to the lightning-arrester B, and connected therewith in any suitable manner; and a local battery H from which suitable wire-connections proceed. It may be further mentioned, that by sealing up the wires *o*, as shown and described, I guard against their corrosion, breakage and displacement.

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

1. An electrical-instrument table having at suitable points in its top conducting terminals interconnected by circuit-wires, in combination with a set of electrical instruments and withdrawable fasteners connecting the instrument-wires with said terminals and engaging said instruments to fasten them to the table against separation therefrom, substantially as and for the purpose set forth.

2. An electrical-instrument table having at suitable points in its top the metallic studs provided with threaded sockets in their upper end and interconnected by conducting wires, in combination with a set of electrical instruments on bases having the metallic bushings with which the instrument-wires are connected and which correspond with said studs, and screws passing through said bushings into the threaded sockets of the studs, thereby fastening the instruments on the table and closing the circuit of the said interconnecting wires, substantially as and for the purpose set forth.

3. An electrical-instrument table having at suitable points in its top the metallic studs provided with threaded sockets in their upper ends and interconnected by conducting wires, the table being provided in its under side with grooves containing said wires and in which they are sealed, in combination with a set of electrical instruments on bases having the metallic bushings with which the instrument-wires are connected and which correspond with said studs, and screws passing through said bushings into the threaded sockets of the studs, thereby fastening the instruments on the table and closing the circuit of the said interconnecting wires, substantially as and for the purpose set forth.

JACOB F. MEHREN.

In presence of—

J. N. HANSON,
W. N. WILLIAMS.