April 30, 1963 S. MEYER 3,088,054

ELECTRICAL APPARATUS

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FIG. 1

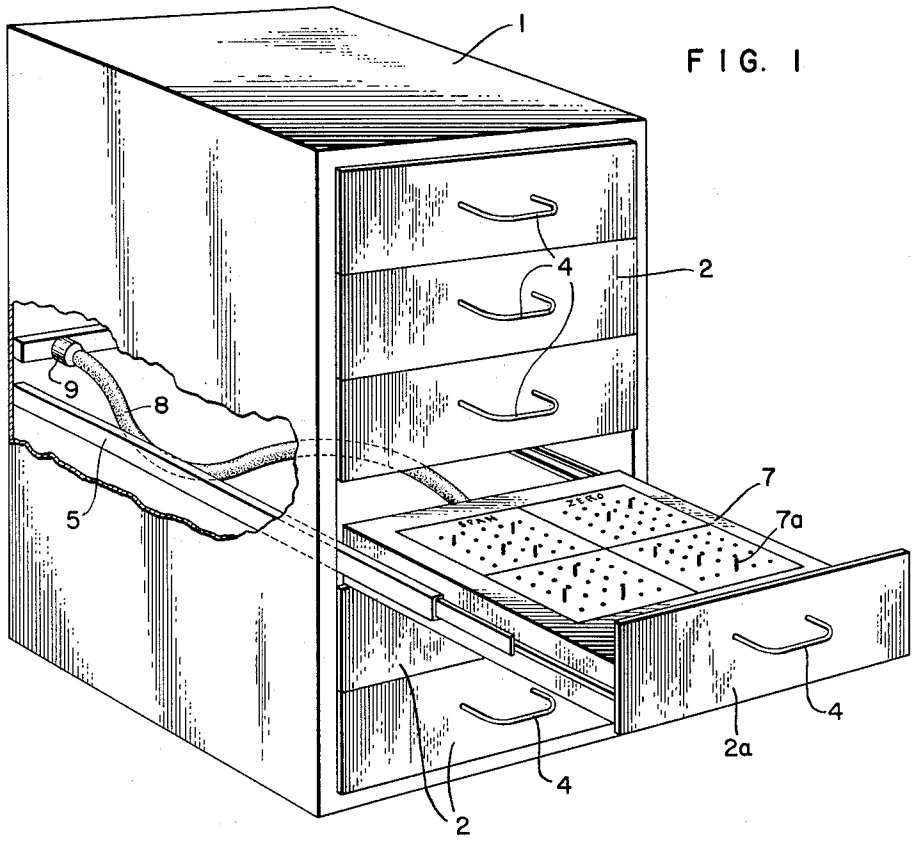
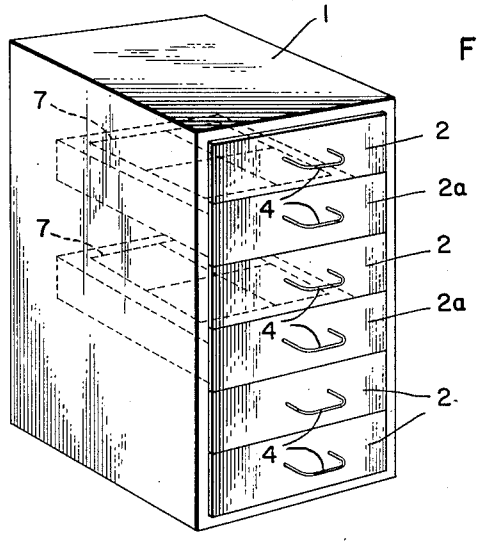


FIG. 2



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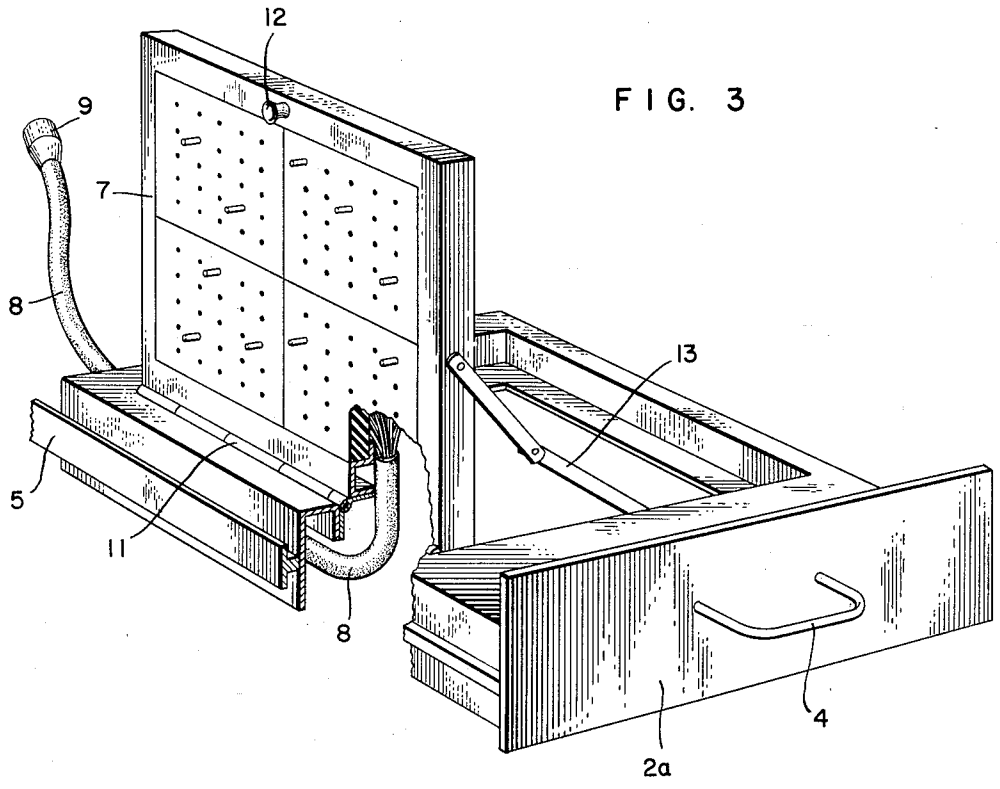
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FIG. 3



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3,088,054
ELECTRICAL APPARATUS

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3 Claims. (Cl. 317—120)

This invention relates to electrical apparatus. More specifically, this invention relates to combinations of electrical system control devices and housing means therefor.

An object of the present invention is to provide an improved combination of an electrical system control device and a housing therefor which combination has particular utility with a selectively alterable pinboard.

Still another object of the present invention is to provide an improved combination of a pinboard and a housing therefor.

Selectively alterable control devices are known in modern data-handling systems. The control devices are frequently used as a means for selecting ones of a plurality of input signals or for programming the desired operations to be performed on an information input signal. Such prior art devices have commonly assumed the form of a patchboard mounted on the front panel of a data-handling system housing. The front mounting of the patchboard enabled an operator to alter the patchboard but also exposed the control device to unauthorized or accidental alterations and constituted an inefficient and aesthetically undesirable use of the front-panel space.

Consequently a further object of the present invention is to provide an improved combination of a pinboard and a housing therefor, which combination is capable of concealing or exposing the pinboard and of storing the pinboard in a space-conserving and aesthetically pleasing position.

A still further object of the present invention is to provide an improved combination of a selectively alterable pinboard and a housing therefor, which combination permits an alteration of the pinboard and continuously retains the system control in an operating condition.

In accomplishing these and other objects, there has been provided, in accordance with the present invention, a combination of a drawer-type mounting means and a pinboard control device mounted thereon. The combination is used to mount the control device in a rack with associated electrical devices. A flexible cable is used to connect the pinboard in an operative relationship with the associated electrical devices. The pinboard is exposed for selective alteration when the drawer is open and is completely hidden when the drawer is closed.

A better understanding of the present invention may be had from the detailed description when read in connection with the accompanying drawings, in which:

FIG. 1 is a pictorial representation of a combination of an electrical system control and a housing therefor embodying the present invention.

FIG. 2 is a somewhat different pictorial representation of the combination embodying the present invention shown in FIG. 1.

FIG. 3 is a pictorial representation of a somewhat different structure for the combination shown in FIG. 1.

Referring to FIG. 1 in more detail, there is shown an

electrical device mounting rack **1** having a plurality of compartments for mounting electrical devices. The compartments are arranged as drawer-type mounting means **2**, hereinafter referred to as drawers **2**, with corresponding handles **4**. The drawers **2** are supported on slide devices **5** to enable the drawers to be opened.

The slide devices **5** may be any suitable device for slideably supporting a drawer-type mounting means; such devices being well-known in the art.

A pinboard **7** is supported within a pinboard drawer **2***a* of the rack **1**. The pinboard **7** may be a device such as shown in a copending U.S. application by Saul Meyer Serial No. 729,861, filed April 21, 1958, now Patent No. 3,011,981. Selectively alterable pins **7***a* are provided for varying the control function of the pinboard **7**. The pinboard **7** is connected to associated electrical devices by a flexible cable **8** having a plug connector **9**. The flexible cable **8** is used to provide a continual connection betwen the pinboard **7** and the electrical devices controlled thereby. Thus, the pinboard drawer **2***a* containing the pinboard **7** may be opened for selective alteration of the pins **7***a* without affecting the control function of the pinboard **7**. Further, the pinboard **7** may be used to perform a control function with the pinboard drawer **2***a* remaining in an open or in a closed condition.

In FIG. 2, there is shown a pictorial representation of the rack **1** shown in FIG. 1 with the pinboard drawer **2***a* in a closed condition. As shown in FIG. 2, the pinboard **7** is completely enclosed within the rack **1** when the pinboard drawer **2***a* is closed. It is evident that the pinboard **7** and pinboard drawer **2***a* enable the pinboard **7** to occupy the minimum area on the front of the rack **1**. Also, as shown in FIG. 2, the rack **1** may contain a plurality of pinboard drawer **2***a* and pinboard **7** combinations having a construction similar to that previously discussed in relation to FIG. 1.

In FIG. 3, there is shown a modified structure for the the pinboard **7** and pinboard drawer **2***a*. The modification includes a hinge **11** mounted on one side of the pinboard **7**. A knob **12** and a supporting device **13** enable the pinboard **7** to be positioned and held in a vertical position with relation to the pinboard drawer **2***a*. It may be seen that the vertical positioning of the pinboard **7** does not affect its operation by means of the cable **8**. However, the underside of the pinboard **7** may be exposed to facilitate repairs or measurements of the pinboard components.

Thus it may be seen that there has been provided, in accordance with the present invention, a combination of an electrical system pinboard control device and a housing therefor which is characterized by the ability to protect the pinboard and to store the pinboard in a space-conserving position while maintaining the pinboard in a continuously operating condition.

What is claimed is:

1. A combination of a control means and a housing therefor comprising an electrical system selective interconnection control means providing a plurality of separate electrical interconnections, a flexible cable connecting each of said separate interconnections of said control means to associated equipment, a rack for storing electrical equipment, mounting means for said control means, and supporting means positioning said control means in said

rack and enabling said control means to have a translatory motion with relation to said rack to expose or to conceal said control means without affecting the operation thereof.

2. A combination of a control means and a housing therefor comprising a pinboard, for providing a plurality of separate circuit interconnections, a storage rack, pinboard drawer means in said rack for said pinboard for selectively exposing or concealing said pinboard, and a flexible cable connecting each of said separate interconnections of said pinboard to associated equipment.

3. A combination of a control means and a housing therefor comprising a pin board, a storage rack, a pin board drawer means in said rack for supporting said pinboard in a horizontal position and for selectively exposing or concealing said pinboard, said drawer means including a hinge means for selectively positioning said pinboard in said drawer means in a substantially vertical

position, and a flexible cable for connecting said pinboard to associated equipment.

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