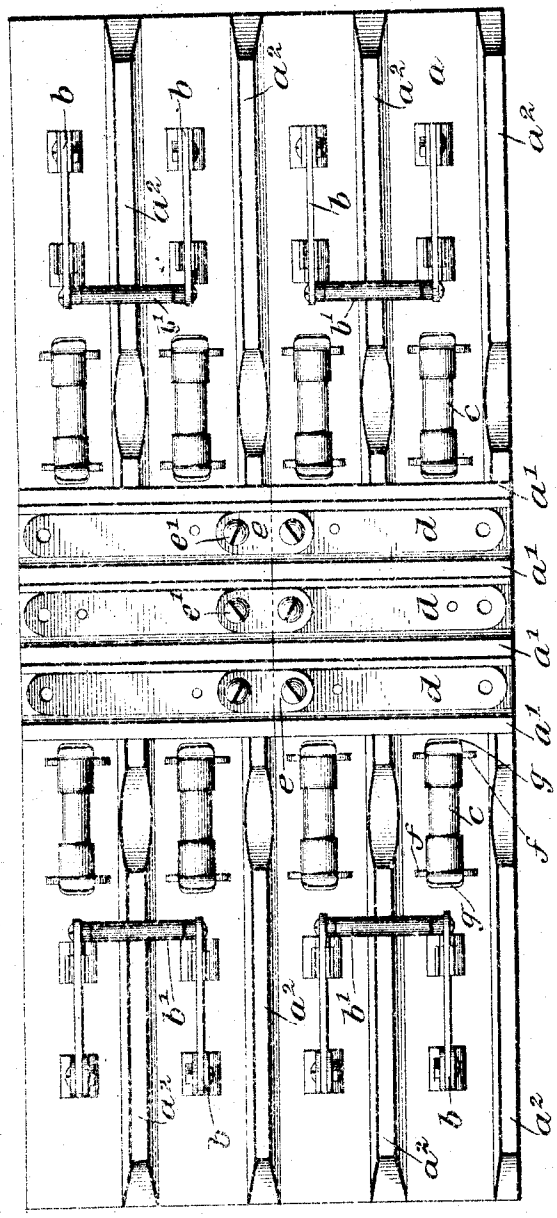
No. 814,146. PATENTED MAR. 6, 1906.

E. R. LE MANQUAIS.

PANEL BOARD.

APPLICATION FILED JUNE 9, 1904.

2 SHEETS—SHEET 1.



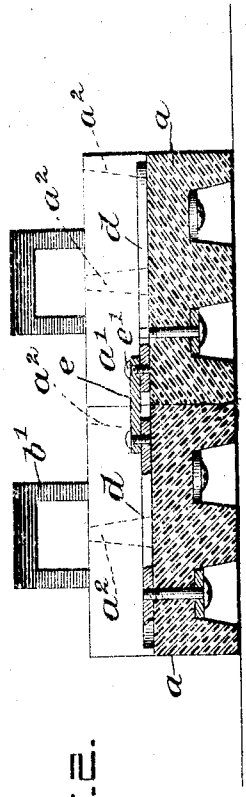


FIG. 2.

WITNESSES:

Isaac B. Owens.

INVENTOR

Ernest R. Le Manquais

BY

ATTORNEYS

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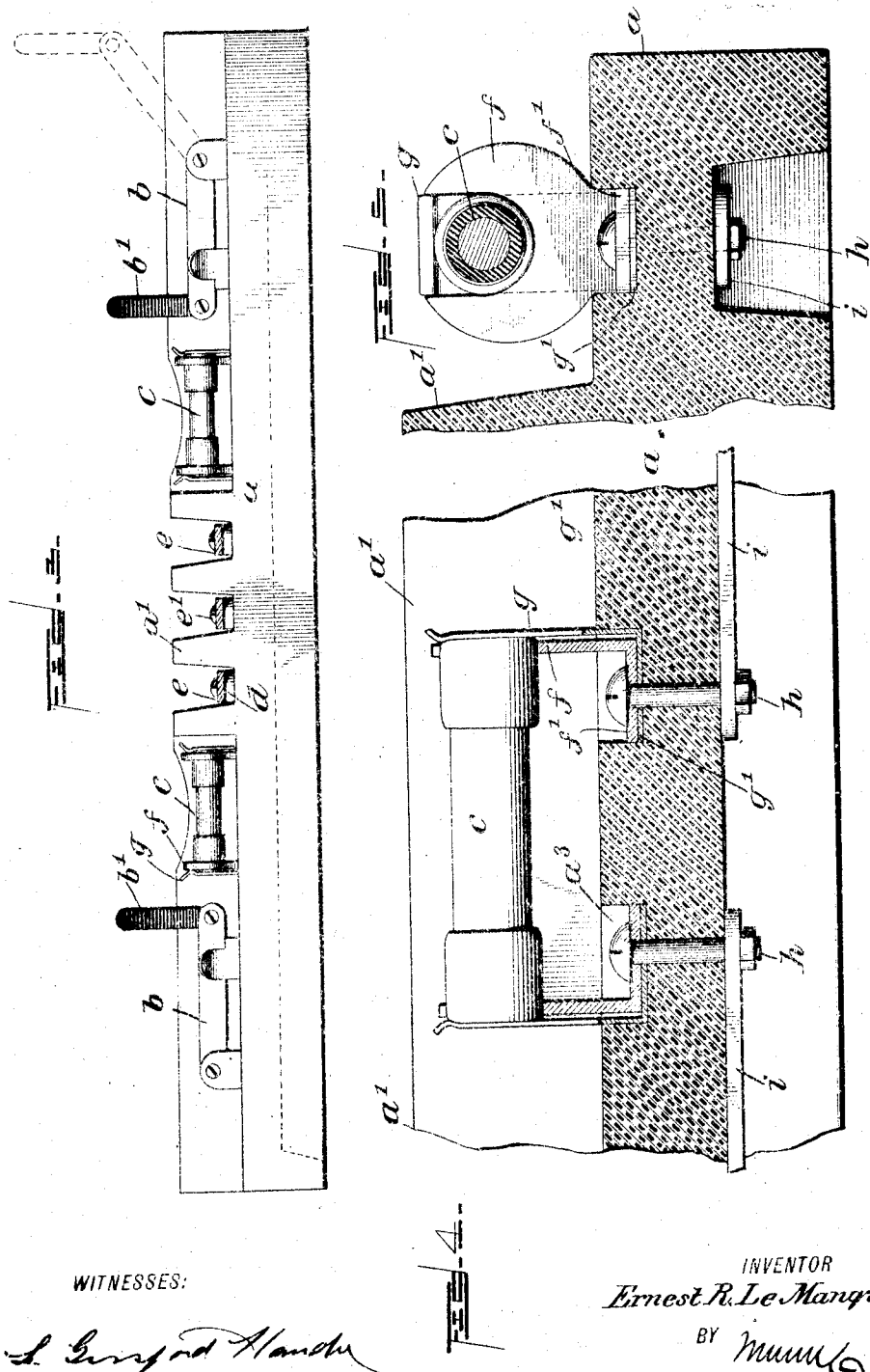


FIG. 3.

FIG. 4.

WITNESSES:

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UNITED STATES PATENT OFFICE.

ERNEST R. LE MANQUAIS, OF NEW YORK, N. Y.

PANEL-BOARD.

No. 814,146. Specification of Letters Patent. Patented March 6, 1906.

Application filed June 9, 1904. Serial No. 211,880.

To all whom it may concern:

Be it known that I, ERNEST R. LE MANQUAIS, a citizen of the United States, and a resident of the city of New York, borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Panel-Board, of which the following is a full, clear, and exact description.

The object of this invention is to provide an improved sectional panel-board, each section of which may be used independently, if desired, and which sections may be combined in any number, so as to make up a panel-board of any desired size.

A further object of the invention is to improve the devices for holding the fuses, so that the fuses may be securely held with proper electrical contact and yet removable at will without danger of injury to the operator.

A further object of the invention is to construct the panel-board so as to minimize the danger of shocking persons operating or adjusting the board.

I attain these objects by certain novel features of structure and organization in which my invention resides and which will be fully set forth hereinafter and pointed out in the claims.

Reference is had to the accompanying drawings, showing as an example one of the practical embodiments of my inventive idea, in which drawings like characters of reference indicate like parts, and in which—

Figure 1 is a plan view of several sections of a panel-board operatively joined. Fig. 2 is a detail section through two of the sections of the panel-board, particularly illustrating the manner of arranging the bus-bars and of connecting bars of one section with the other. Fig. 3 is a side elevation of one of the panel-board sections, showing the switches, fuses, and bus-bars and illustrating the protecting-ribs formed on the panel-board and surrounding said elements to minimize the danger of shocking persons adjusting the board. Fig. 4 is an enlarged detail section of the fuse-holder, said section extending through the two members of a pair of holders longitudinally of the fuse; and Fig. 5 is an elevational view of one of the members of a pair of fuse-holders, this view showing the fuse in cross-section.

The body a of the panel-board is constructed of porcelain or other insulating material in the usual manner. Each section of the panel-board is provided with switches b, fuses c, and bus-bars d, accommodating two circuits, the connections for said circuits being made in the usual manner. As shown in the drawings, the panel-board is designed for a three-wire system, the currents passing in along the middle bus-bar and out along the side bus-bars. The switches b have handles b', essentially U-shaped in form and having their limbs pivoted to the knife-bars of the switch. The body of the panel-board is formed with a number of integral or otherwise arranged ribs a' and a^2, of insulating material, preferably that of which the body of the panel-board is formed. Said ribs a' and a^2 lie on all sides of the bus-bars and between the fuses and switch-bars, each section having four ribs a' and two ribs a^2. The upper edges of the ribs lie above the upper extremities of the conducting parts of said bus-bars, switch-bars, and fuse-holders, so that the person adjusting the parts of the panel-board will be protected as fully as possible from accidental contact with any of the conducting parts. The handles b' of the switches straddle the middle ribs a^2 of each section of the board. It will be observed that a section of the panel-board may be used by itself when only two circuits are necessary.

Any number of sections may be joined together to form a multiple panel-board in the manner shown in Figs. 1 and 2. This is effected by providing bridge-pieces e, which are arranged to lie over the contiguous ends of the bus-bars of two adjacent panel-board sections, and which are fastened to the bus-bars by screws e' or equivalent means. These bridge-pieces therefore effect secure mechanical and electrical connections between the panel-board sections and enable any number of sections to be combined to form a panel-board of any desired size. The advantage of this arrangement will, it is thought, be apparent, since it enables persons engaged in handling and installing electric apparatus to keep in stock the material for forming a panel-board of any size desired, and it avoids the necessity of manufacturing a separate panel-board for each separate job. The sectional panel-board thus constructed is adapted to be fastened in a junction, connection, or equivalent box or inclosure, as will be understood by persons skilled in the art, and I would here explain that the novel junction-box forming the subject-matter of my copending application, Serial No. 189,120, filed

January 15, 1904, is especially adapted for this purpose.

The fuse-holders are two for each fuse, said holders engaging the ends of the fuse, as shown, and each comprises a fork *f*, in which the ends of the fuse are placed and held, and contact-springs *g*, arranged one at the outer side of each fork to bear respectively on the ends of the fuse and not only to make effective electrical contact therewith, but also to hold the fuses securely seated in the forks. The forks *f* and contact-springs *g* are respectively provided with tail-pieces *f'* and *g'*, extending at right angles to the forks and springs and seated, preferably, in cavities a^3 in the body of the panel-board. These tail-pieces, in conjunction with screws *h*, serve to hold the forks and contact-springs in place, and the said screws pass through the panel-board into engagement with the cross connections *i* on the under side of the board, so that the screws serve the double purpose of securing the fuse-holders in place and of effecting electrical connection between said holders and the cross connections of the panel-board, as Fig. 4 shows. It will be observed that the fuse may be readily inserted in the fuse-holders by placing it between the forks *f*, the contact-springs *g* yielding outward to allow this insertion and returning to hold the fuse securely in place and to insure proper electrical contact between the ends of the fuse and the holders.

Various changes in the form, proportions, and minor details of my invention may be resorted to at will without departing from the spirit and scope thereof. Hence I consider myself entitled to all such variations as may lie within the terms of my claims.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. A sectional panel-board comprising a plurality of sections, independent bus-bar sections mounted respectively on the panel-board sections and lying contiguous when the sections are assembled, and bridge-pieces extended between and attached to the contiguous ends of the bus-bar sections whereby to effect mechanical connections between the panel-board sections and electrical connections between the bus-bar sections.

2. A sectional panel-board comprising a plurality of sections, independent bus-bar sections mounted respectively on the panel-board sections and lying contiguous when the sections are assembled, and bridge-pieces extended between and attached to the contiguous ends of the bus-bar sections whereby to effect mechanical connections between the panel-board sections and electrical connections between the bus-bar sections, the said panel-board sections having insulating-ribs extending transversely of the sections between and at the sides of the bus-bar sections, and the ribs of one section registering with the ribs of the other section or sections to form continuous protecting-ribs on the panel-board, and the said bridge-pieces being located between the said protecting-ribs.

3. A panel-board provided with two oppositely-arranged fuse-holders intended respectively to carry the ends of the fuse, each fuse-holder comprising forks in which the ends of the fuse are received, and contact-springs lying outward from the forks and adapted to engage the ends of the fuse-holders, the forks and springs having tailpieces extending laterally therefrom and lying one over the other, and combined fastening and conducting device engaging said tailpieces and passing into the panel-board.

4. A sectional panel-board comprising a plurality of sections, independent bus-bar sections mounted respectively on the panel-board sections and lying contiguous when the sections are assembled, bridge-pieces extending between and attached to the contiguous ends of the bus-bar sections whereby to effect mechanical connections between the panel-board sections, and electrical connections between the bus-bar sections, fuse-holders and switches attached to the panel-boards at each side of the bus-bars and insulating-ribs a part of which extend transversely of the panel-board sections between and at the sides of the bus-bar sections, and others of which extend longitudinally of the panel-board sections between and at the sides of the said fuse-holders and switches.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ERNEST R. LE MANQUAIS.

Witnesses:
ISAAC B. OWENS,
JNO. M. RITTER.