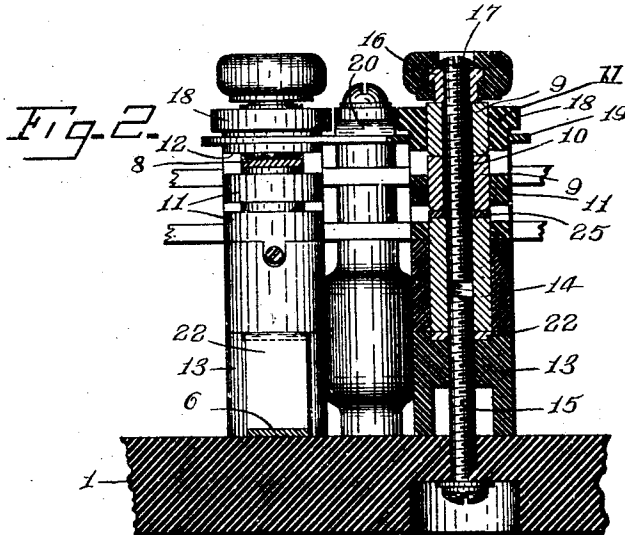
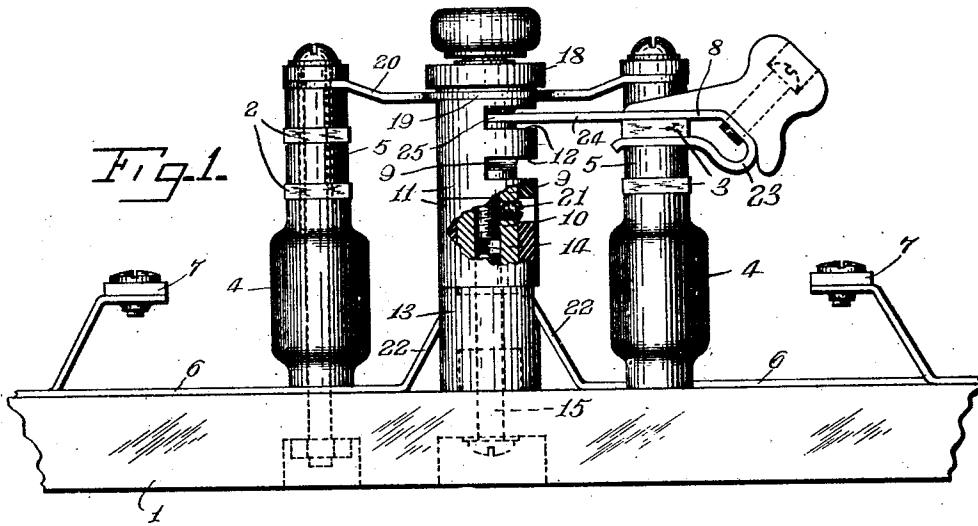


R. H. OLLEY.
 BINDING DEVICE FOR PANEL BOARDS.
 APPLICATION FILED MAR. 8, 1911.

1,119,718.

Patented Dec. 1, 1914.



WITNESSES:

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UNITED STATES PATENT OFFICE.

RAYMOND H. OLLEY, OF SYRACUSE, NEW YORK, ASSIGNOR TO CROUSE-HINDS
COMPANY, OF SYRACUSE, NEW YORK, A CORPORATION OF NEW YORK.

BINDING DEVICE FOR PANEL-BOARDS.

1,119,718.

Specification of Letters Patent.

Patented Dec. 1, 1914.

Application filed March 8, 1911. Serial No. 613,209.

To all whom it may concern:

Be it known that I, RAYMOND H. OLLEY, of Syracuse, in the county of Onondaga and State of New York, have invented a certain new and useful Binding Device for Panel-Boards, of which the following is a specification.

This invention relates to panel boards of the type described in my pending application Sr. No. 585,598 filed October 6, 1910, and has for its object a particularly simple and efficient terminal construction therefor; and the invention consists in the combinations and constructions hereinafter set forth and claimed.

In describing this invention reference is had to the accompanying drawings in which like characters designate corresponding parts in all the views.

Figure 1 is an elevation partly in section, of a portion of a panel board embodying my invention. Fig. 2 is a sectional view of such panel board showing one of the terminals in section and another terminal in elevation.

1 is the base of the panel board which may be of any desirable form, size and construction.

2 and 3 are respectively sets of conducting bars, the bars of each set being arranged one above the other when the panel board is in horizontal position and supported by suitable pillars 4 which include spacing rings 5 of insulation located between the bars. The sets of bars 2, 3 extend parallel to each other and the individual conducting bars are connected, respectively, in different circuits as meter circuits. However, one set of bars may be omitted if desired.

The terminals are arranged about midway between the bars 2, 3 and are connected to bars 6 which are in other circuits than the meter circuits and are connected to corresponding sides of the load circuits, the opposite sides of which are connected to bars 7 in circuit with the main conductors of the panel board. The arrangement of the circuits connected to metering panel boards is well known and further description herein is unnecessary as this invention relates in no way to such circuits. However for a full description reference is made to my pending application, Sr. No. 585,598.

Any one, or all, of the terminals may be connected to any one of the bars 2, 3 of the

meter circuits by a connecting member 8 to be described. Each terminal comprises a post including a plurality of spacing rings 9 arranged one above the other around a suitable support 10, any two of the spacing rings being adapted to receive a connecting member 8 between them; and a sleeve 11 of insulation encircles the spacing rings and support therefor, and is formed with a plurality of transverse slots 12 in one side thereof for exposing the edges of the abutting end faces of contiguous spacing rings 9.

In my application 585,598 referred to, these sleeves of insulation are shown as formed of a plurality of rings, one insulating ring for each spacing ring, but the construction shown herein is much more simple as it requires no fitting together of the various rings composing the insulating sleeve. As illustrated, the sleeve 11 is composed of two sections, the upper section being provided with the slots 12 and the lower section resting directly upon the block 13, presently described. Each terminal may be of any desirable form, size and construction and as here shown, it comprises a base block 13 mounted on the base 1 of the panel board, a metallic internally threaded sleeve 14 mounted above the block 13, a clamping member, as a screw 15, extending through the base 1 of the panel board from the rear side thereof, through the block 13 and threading into the lower end of the sleeve 14, the support 10 which is a screw threading into the upper end of said sleeve, the spacing rings 9 encircling the screw 10, one above the other, the lowermost normally resting on the sleeve 14, and a nut 16 turning on the upper end of the screw 10 against the uppermost ring 9. The movement of the nut 16 outwardly is limited by the head 17 on the screw 10, such head 17 permitting sufficient movement outwardly of the nut to allow the spacing rings to be separated sufficiently to permit the insertion of but one of the connecting members 8 between adjacent rings, or between the lowermost ring and the sleeve 14. When the slots 12, in the sleeve 11, face one set of conductor bars, as the bars 2, 3, a connection may be made by a member 8 between a bar of that set and the part of the terminal having electrical conductivity, and at the same time the intact part of the sleeve is presented to the other

set of bars, as the bars 2, for preventing the possibility of a connection being made between any one of the same and the terminal. The terminals are braced at their outer ends by plates, or spanners 20, one being preferably associated with two contiguous terminals and the adjacent pair of pillars 4, substantially as shown in my companion application hereinbefore referred to. As here shown, the opposite ends of a spanner are secured to the pillars 4 and the middle part of the spanner is provided with separated openings 19 which receive the sleeves 11. The upper end of each sleeve is preferably provided with a shoulder 18 overhanging the edge of the opening through which the sleeve extends. A set screw 21 is preferably provided for preventing the accidental turning of the support 10 in reference to the sleeve 14.

The end portion 22 of each of the bars 6 is offset from the base 1, overlies and is usually sunk into the upper end of the block 13 and is pierced by the screw 15, and the sleeve 14 is seated on said portion 22 in electrical contact therewith.

The connecting member 8 is here shown as of substantially the same construction as that shown and described in my pending application 585,598 referred to, said member being formed of a strip of metal bent upon itself at 23 in order to form spring jaws for embracing one of the bars 2 or 3, one of the arms as 24 of the strip being longer than the other and having a bifurcated end 25 adapted to be inserted through one of the slots 12 between two of the spacing rings 9 or between the lowermost spacing ring 9 and the upper end of the sleeve 14, as clearly shown in the drawings.

What I claim is:

1. A binding device for panel boards comprising a post, and spacing rings encircling the post one above the other, an insulating means encircling the post, said means comprising a sleeve of insulation having a plurality of transverse slots forming passages at intervals lengthwise of the post and exposing the edges of the abutting end faces of the contiguous rings, in combination with a connecting member for entering one of the passages and between the contiguous rings exposed through such passage, substantially as and for the purpose specified.
2. In a panel board, a base, a terminal comprising a block mounted on the base, an internally threaded sleeve mounted vertically above the block, a clamping screw extending through the base from the rear side thereof and through the block and threading into the lower end of the sleeve, a threaded member screwing into the upper end of the threaded sleeve, and binding means encircling said member above the sleeve, in combination with a conductor for

coacting with the binding means, substantially as and for the purpose described.

3. In a panel board, a base, a binding device comprising a block mounted on the base, an internally threaded sleeve mounted vertically above the block, a clamping screw extending through the base from the rear side thereof and through the block and threading into the lower end of the sleeve, a threaded member screwing into the upper end of the threaded sleeve, spacing rings encircling the threaded member one above the other and the lowermost ring resting on said sleeve, and a nut turning on the upper end of said member against the uppermost ring, in combination with a conductor for coacting with said member, substantially as and for the purpose specified.

4. In a panel board, a base, a terminal comprising a block mounted on the base, an internally threaded sleeve mounted above the block, a clamping screw extending through the base from the rear side thereof and through the block and into the lower end of the threaded sleeve, and a screw turning into the upper end of the threaded sleeve, and a sleeve of insulation inclosing the threaded sleeve and the screw and resting on said block, the sleeve of insulation being formed with a plurality of slots at intervals lengthwise of the terminal, in combination with a conductor adapted to be inserted in any one of the slots, substantially as and for the purpose set forth.

5. In a panel board, a base, a terminal comprising a block mounted on the base, an internally threaded sleeve mounted above the block, a clamping screw extending through the base from the rear side thereof and through the block and into the lower end of the threaded sleeve, a screw turning into the upper end of the threaded sleeve, and metallic rings encircling the last-mentioned screw one above the other, any two of the rings being adapted to receive a conductor between them, and insulating means encircling the rings and having passages at intervals lengthwise of the terminal for exposing the edges at the abutting ends of contiguous rings, substantially as and for the purpose described.

6. In a panel board, a base, a binding device comprising a block mounted on the base, an internally threaded sleeve mounted above the block, a clamping screw extending through the base from the rear side thereof and through the block and into the lower end of the threaded sleeve, a screw turning into the upper end of the threaded sleeve, and metallic rings encircling the last-mentioned screw one above the other, any two of the rings being adapted to receive a conducting member between them, and an insulating sleeve encircling the threaded sleeve and the rings and resting on said

block, the sleeve having a plurality of transverse slots at intervals for exposing the edges at abutting ends of contiguous rings and the abutting ends of the threaded sleeve and lowermost ring, substantially as and for the purpose specified.

7. In a panel board, a base, a binding device comprising a block mounted on the base, an internally threaded sleeve mounted above the block, a clamping screw extending through the base from the rear side thereof and through the block and into the lower end of the threaded sleeve, a screw turning into the upper end of the threaded sleeve, metallic rings encircling the screw one above the other, any two of the rings being adapted to receive a connecting member between them, and a nut at the upper end of the screw for clamping the rings together, and insulating means encircling said sleeve and the rings and having passages at intervals lengthwise of the binding device for exposing the edges of the abutting ends of contiguous rings, substantially as and for the purpose set forth.

8. In a panel-board, a base, a conductor mounted on the base and having a portion offset from the face thereof, and a terminal comprising a part having electrical conductivity, and a part of insulation, said member having electrical conductivity including a sleeve contacting with the offset portion of the conductor and having a threaded opening therein, and said part of insulation including a block interposed between the face

of the base and the offset portion of the conductor, and a clamping member extending through the base from the rear side thereof and having a part engaging the threaded opening in the sleeve, substantially as and for the purpose specified.

9. In a panel-board, a base, a conductor mounted on the base and having a portion offset from the face thereof, and a terminal comprising a part having electrical conductivity, and a part of insulation, the part of insulation including a block interposed between the offset portion of the conductor and the face of the base, and tubular sleeves superimposed upon the block, and said part having electrical conductivity including a sleeve and a plurality of rings located within the tubular sleeves of insulation, said sleeve having electrical conductivity being provided with a threaded opening and resting directly upon the offset portion of the conductor, and a screw extending through the base from the under side thereof and having a shank engaging said threaded opening, substantially as and for the purpose set forth.

In testimony whereof, I have hereunto signed my name in the presence of two attesting witnesses, at Syracuse, in the county of Onondaga, in the State of New York, this 24th day of January, 1911.

RAYMOND H. OLLEY.

Witnesses:

S. DAVIS,
L. M. DAVIS.