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WIRE TERMINAL CONNECTOR AND BLOCK

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Fig. 1

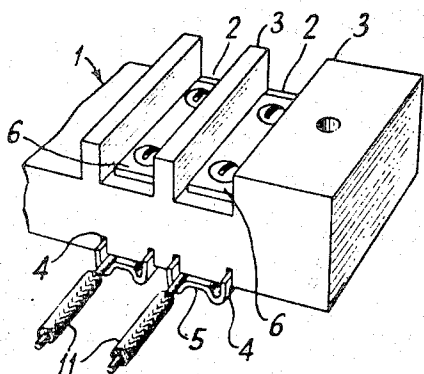


Fig. 2

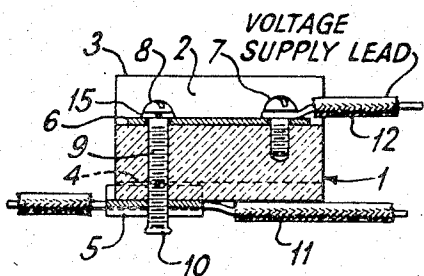


Fig. 3

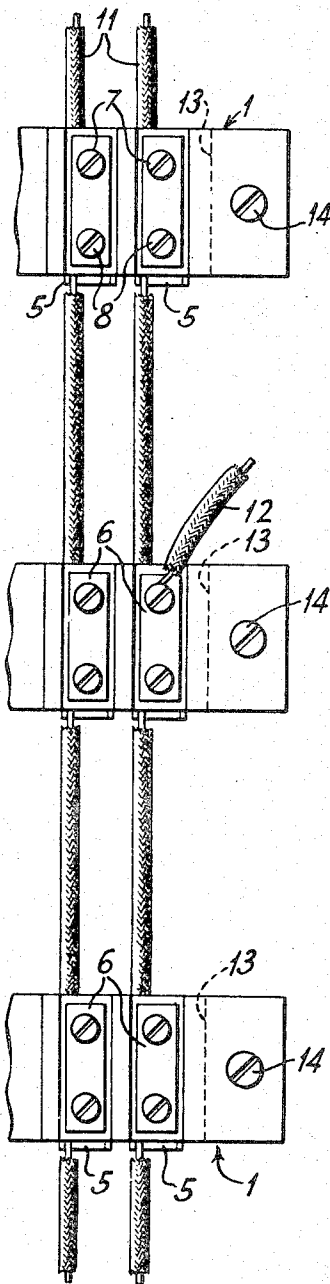
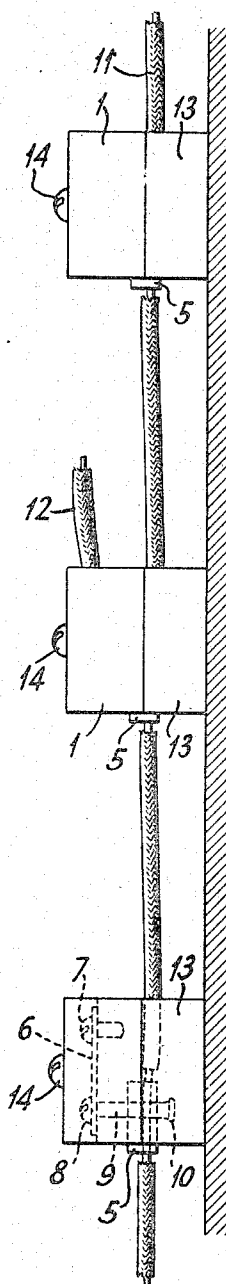


Fig. 4



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WIRE TERMINAL CONNECTOR AND
BLOCKWilliam Kimmich, Flushing, N. Y., assignor to
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4 Claims. (Cl. 173—324)

This invention relates to improved wire terminal connectors and terminal blocks which are particularly adapted for use on a high voltage rack distribution system having parallel current taps, in a central communications office.

The object of this invention is to simplify and improve terminal connectors and also to eliminate spliced joints.

Wire terminal connectors are generally considered old in the art for use as terminal blocks, also, as parallel current taps. A spliced or loose joint must be made for each connection. In the first instance, the mechanical disadvantage lies in the danger of burning the insulation and in the second instance, the block must be connected at the time when the wires are installed in the central communications office. Features of this invention are such that these disadvantages are substantially eliminated.

This invention will best be understood by referring to the accompanying drawing, in which:

Fig. 1 is a perspective view of the improved terminal connector and terminal block of this invention;

Fig. 2 is a sectional view of Fig. 1;

Fig. 3 is a front view of a plurality of terminal blocks mounted to form a rack; and

Fig. 4 is a side view of Fig. 3.

Referring now to the drawing, 1 is the terminal block made of any suitable insulating material, such as phenol condensation products, which is provided with a plurality of deep slots 2, the remaining unslotted portion forming insulating barriers 3, the underside of the block being slotted to provide parallel channels at 4 to prevent rotation of a movable metallic U-shaped clamp member 5. 6 is a metallic short-circuiting link which is fastened to block 1 and retained within slot 2 by means of screws 7 and 8. Clamp 5 is threaded at 9 and retained by means of the longer part of screw 8 which passes through insulating block 1. The end of screw 8 is spun over at a point 10 to prevent the dropping of member 5 when it is desired to release the grip between the conductor 11 and base 1. Conductor 12 indicates a supply lead which is connected to member 6 by means of clamping screw 1 which is threaded in insulating block 1.

Fig. 3 indicates the use of a plurality of blocks which are mounted to any suitable supports by means of a plurality of spacing blocks 13 and clamped by means of screws 14. In the use of this improved terminal block, the conductors, such as conductor 11, which do not terminate at the block but pass through between clamp 5,

require that the insulation be removed from the conductor over a short length along the side of the clamp. The bare wire is then placed between the block 1 and the clamp and tightened up by means of screw 8. A lock nut or washer 15 may be provided to prevent movement of screw 8 due to vibration and thus ensure a permanent electrical connection.

While only one specific type of this invention is shown, it is to be distinctly understood that it is not to be limited, except by such limitations as are clearly imposed in the appended claims.

What is claimed is:

1. A wire terminal block and connector comprising an insulating terminal block member having a slot arranged at right angles to the length thereof, a metallic strip having two apertures therein and located within said slot, means passing through one of said apertures for binding said strip to said insulating block, a movable metallic U-shaped clamp member located on the opposite side of said insulating block from said strip and beneath said strip, said U-shaped clamp having two semi-circular indentations on the lower side of the U for binding a plurality of external conductors, binding means passing through the other aperture in said strip and through said insulating terminal block, metallic strip and U-shaped clamp to secure said conductors in electrical engagement with said strip, and a plurality of parallel arranged channels for engaging the upper ends of said metallic U-shaped clamp to prevent its rotation on said insulating terminal block.

2. A wire terminal block and connector comprising an insulating terminal block member having a slot arranged at right angles to the length thereof, a metallic strip having two apertures therein and located within said slot, means passing through one of said apertures for binding said strip to said insulating block, a movable metallic U-shaped clamp member located on the opposite side of said insulating block from said strip and beneath said strip, said U-shaped clamp having two semi-circular indentations on the lower side of the U for binding a plurality of external conductors, binding means passing through the other aperture in said strip and through said insulating terminal block, metallic strip and U-shaped clamp to secure said conductors in electrical engagement with said strip, and a plurality of narrow parallel arranged channels to engage the two upwardly extending sides of said U-shaped clamp to prevent said clamp from rotating on said insulating terminal block.

3. A wire terminal block and connector com-

prising an insulating terminal block member having a plurality of parallel slots arranged at right angle to the length thereof, a plurality of metallic strips having two apertures therein and located within said slots, means passing through one of said apertures for binding said strips to said insulating block, a plurality of movable metallic U-shaped clamp members located on the opposite side of said insulating block from said strips and beneath said strips, said U-shaped clamps having semi-circular indentations on the lower side of the U for binding a plurality of external conductors, binding means passing through the other aperture of said strips and through the insulating terminal block, metallic strip and U-shaped clamp to secure said conductor in electrical engagement with said strip, and a plurality of parallel arranged channels for engaging the upper ends of said metallic U-shaped clamps to prevent their rotation on said insulating terminal block.

4. A wire terminal block and connector com-

prising an insulating terminal block member having a slot arranged at right angles to the length thereof, the unslotted portion of said terminal block forming insulating barriers, a flat metallic strip having two apertures therein and located at the lower portion of said slot, means passing through one of said apertures for binding said strip to said insulating block, a movable metallic U-shaped clamp member located on the opposite side of said insulating block from said strip and beneath said strip, said U-shaped clamp having indentations on the lower side of the U for binding a plurality of external conductors, binding means passing through the other aperture in said strip and through said insulating terminal block, metallic strip and U-shaped clamp to secure said conductors in electrical engagement with said strip, and a plurality of parallel arranged channels for engaging the upper ends of said metallic U-shaped clamp to prevent its rotation on said insulating terminal block.

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