

April 30, 1940.

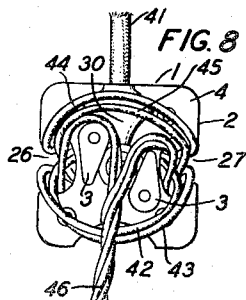
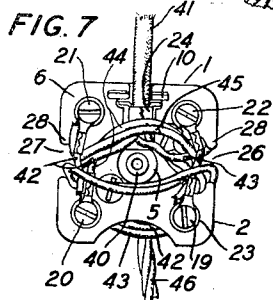
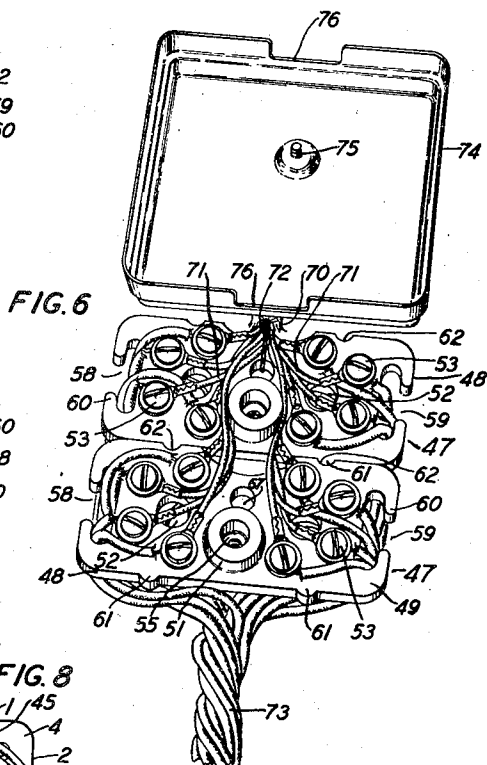
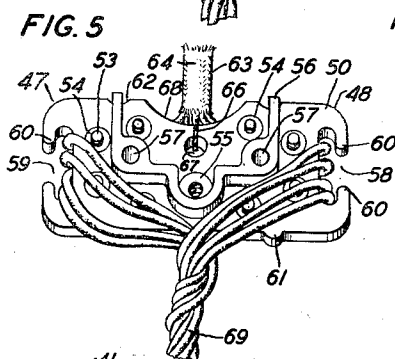
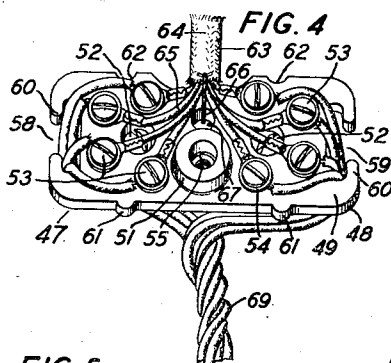
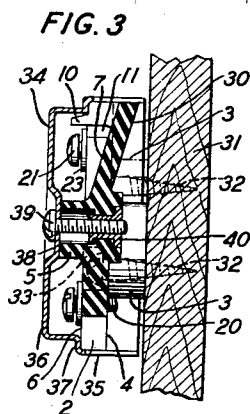
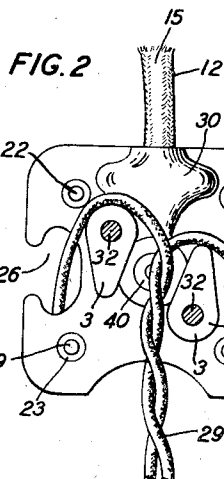
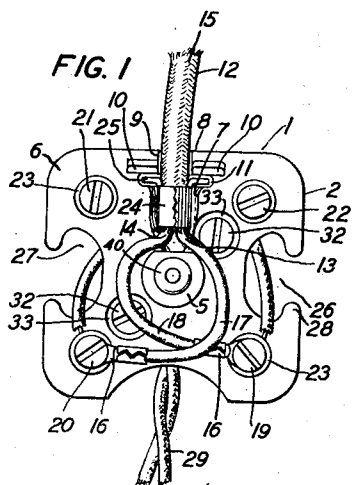
W. H. EDWARDS ET AL

2,199,219

TERMINAL BLOCK

Filed Sept. 9, 1938

2 Sheets-Sheet 1



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TERMINAL BLOCK

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2 Sheets-Sheet 2

FIG. 9

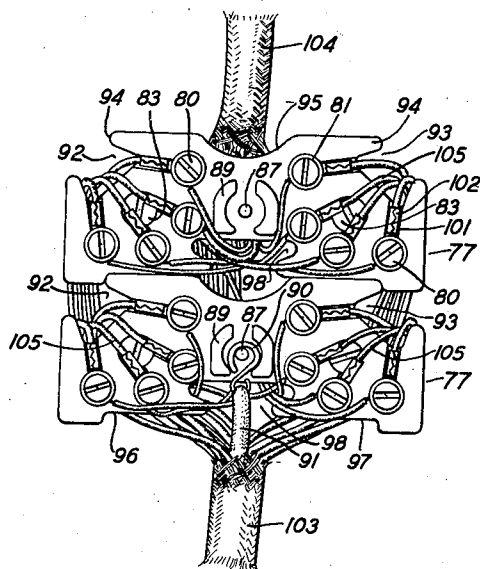


FIG. 10

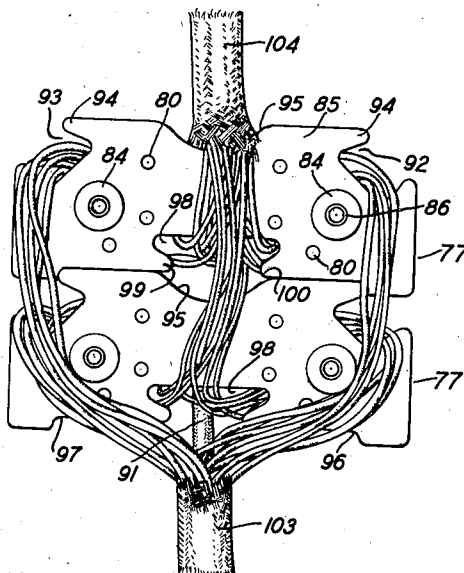


FIG. 11

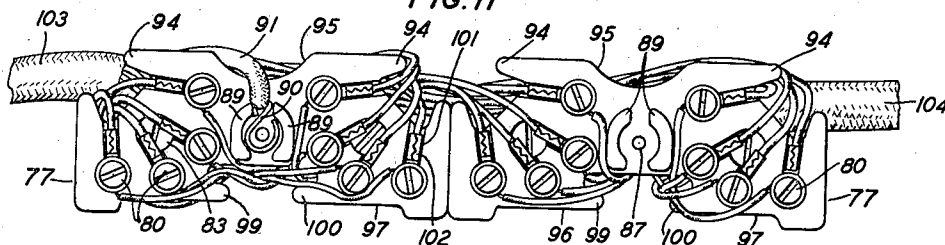


FIG. 12

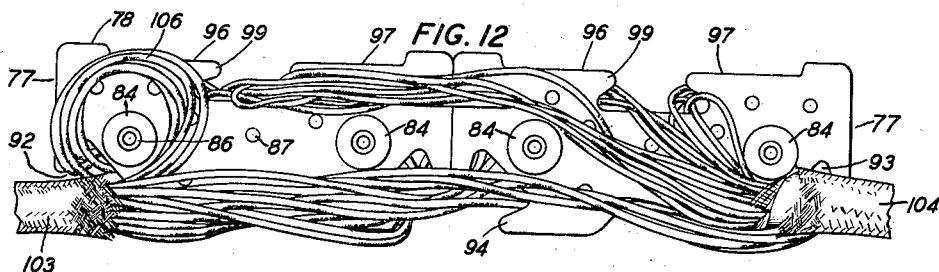
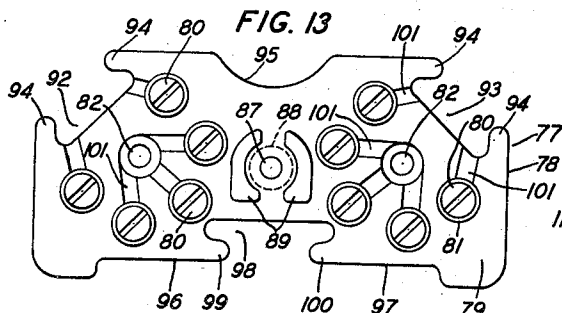


FIG. 13



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2,199,219

TERMINAL BLOCK

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Application September 9, 1938, Serial No. 229,058

1 Claim. (Cl. 173—324)

This invention relates to terminal blocks and more particularly to terminal blocks in which electrical terminals are supported on a block of insulating material.

5 The object of the invention is to provide a terminal block adapted to maintain wires in required positions and to take care of wires some at least of which are of fixed length.

10 A feature of the invention resides in projecting means formed on a rear face of the block to permit the running of wires between a main portion of the block and a wall surface on which the block is mounted.

15 Another feature resides in passageways formed in edge portions of the block to permit the running of wires to terminals supported on the front face of the block.

20 Another feature resides in means included in the structure of the block for anchoring a conductor to the block.

Other features than those above mentioned are subsequently pointed out in the specification. In the drawings:

25 Fig. 1 is a front face view of one form of the terminal block and with wires running thereto;

Fig. 2 is a rear face view of the block shown in Fig. 1;

30 Fig. 3 is a side view, partly in section, of the block shown in Figs. 1 and 2 and with a cover attached, the block being mounted on a wall;

Fig. 4 is a front view, in perspective, of another form of block with wires running thereto;

35 Fig. 5 is a rear view, in perspective, of the block shown in Fig. 4;

40 Fig. 6 is a front view, in perspective, of two blocks of the form shown in Fig. 4 with wires running thereto and with a removable cover adapted to cover the two blocks;

45 Figs. 7 and 8 are front and rear views, respectively, of the block shown in Figs. 1 and 2, drawn to a reduced scale relative to Figs. 1 and 2 and showing the manner in which wires may be belayed around portions of the blocks to take care of overlength wires;

Fig. 9 is a front face view of two blocks of another form and showing wires running to the blocks;

Fig. 10 is a rear view of Fig. 9;

50 Fig. 11 is a front face view of the blocks shown in Fig. 9 but with the blocks placed end to end and with the wires arranged accordingly;

Fig. 12 is a rear view of Fig. 11; and

55 Fig. 13 is a front face view of a block of the form shown in Figs. 9 and 11 but minus the wires

and drawn to an enlarged scale relative to Figs. 9 and 11.

The terminal block comprises a block of insulating material with terminal screws supported in spaced relation thereon. A removable cover 5 may be applied to the block.

The block is adapted to be mounted on a wall or other suitable support and may be used, for instance, as a point of connection between conducting wires of a telephone system and the wires of a telephone subscriber's telephone set. Merely 10 for the purpose of illustrating how the invention may be used and not in the sense of limiting the invention to such use, it will be assumed that the block serves as a point of connection between 15 wires of a telephone system, and the wires of a telephone set.

A relatively simple form of the invention is shown in Figs. 1 and 2 and is illustrated with the cover attached in Fig. 3. In this form as shown 20 in Figs. 1 and 2, two pairs of wires are electrically connected by means of two of the terminal screws supported on the block. In Figs. 7 and 8 the same form of terminal block is used but in this case two sets of wires each having four 25 conductors therein are electrically connected by means of the four terminal screws on the block. It is obvious that more than four terminal screws may be provided on the block if it is desired to take care of more than the number of wires shown 30 and that the block may be suitably dimensioned to accommodate any required number of connections. The block, for instance, as shown in Figs. 4 and 5 has been made oblong to accommodate 35 eight terminal screws and thus permit the connection of two sets of wires each of which contains eight conductors. In this case a removable cover, not shown, may also be provided, the cover being formed to meet the particular size and shape of the block. 40

A plurality of blocks as shown in Fig. 6 may be placed in alignment and in edge-to-edge relation to form in effect a larger block and thus accommodate a relatively large number of wires. In this case a removable cover common to the 45 two blocks is dimensioned and shaped to fit over the blocks.

In Figs. 9, 10, 11 and 12 a plurality of blocks of somewhat different form to those shown in the preceding figures are arranged to take care of 50 a relatively large number of wires. In Figs. 9 and 10 the blocks are arranged in edge-to-edge relation to form in effect a double size substantially square block. In Figs. 11 and 12 the blocks are arranged in end-to-end relation. Removable 55

covers, not shown, may be provided for the arrangements shown in Figs. 9 to 12, the covers of course being dimensioned to suit the arrangements illustrated.

5 Each form of block will now be described in detail and with reference to the figures in the drawings.

The form shown in Figs. 1, 2 and 3 comprises a block 1 of insulating material having a slab portion 2, spaced foot portions 3—3 extending from the rear face 4 and a centrally located ring-shaped embossing 5 on the front face 6. The foot portions 3—3 are located toward the center of the rear face 4 and are spaced apart a sufficient distance to permit a pair of wires in twisted form to be passed between them. The foot portions are of such length as to maintain the slab portion 2 spaced from a wall, upon which the block may be mounted, a distance sufficient to permit the extension of wires between the slab portion of the block and the wall. The foot portions are longitudinally apertured to accommodate mounting screws for the block and are of sufficient cross-sectional area to form a good footing for the structure. A cavity 7 is formed in the front face 6 of the slab portion 2 in line with the embossing 5, the cavity extending from the embossing 5 to the outer edge of the slab portion 2. The cavity 7 increases progressively in depth from the embossing 5 to the outer edge 8 of the slab portion 2. The cavity 7 also progressively increases in width from the embossing 5 toward the outer edge 8 of the slab portion 2, but before reaching the outer edge portion 8 the cavity is reduced in width to form a semi-cylindrical neck portion 9. Lugs 10—10 are provided on the upper surface of the slab portion 2, the lugs being disposed one on each side of the semi-cylindrical neck portion 9 and being in alignment with each other. The cavity 7 is enlarged at the inner end of the neck portion 9 and adjacent the lugs 10—10 to form a relatively deep groove 11. The cavity 7 with its neck portion 9 and groove 11 are provided to accommodate a cord conductor 12. The cord conductor 12 may be, for instance, a telephone cord comprising insulated conductors 13 and 14 covered for the greater part of their length by a woven jacket 15 of insulating material. It is common practice to provide spade-tip terminals 16 on the ends of the insulated conductors in telephone cords of this type and to have portions of the conductors in the vicinity of the spade terminals 16 not covered by the woven jacket 15. The portions not covered by the woven jacket 15 are known as skinner portions of the telephone cord and will be hereinafter referred to as such in the specification. The skinner portions 17 and 18 of the conductors 13 and 14, respectively, are covered with insulating material and have suitable terminals such, for instance, as the spade-tip terminals 16 attached to the end portions of the wires. The skinner portions of the conductors are led from the inner end of the cavity 7 to required terminal screws 19, 20, 21, 22 supported in spaced relation on the slab portion 2 of the block 1. Each terminal screw is supported in an internally threaded bushing 23 molded into or otherwise secured in the slab portion 2 of the block. The telephone cord 12 is equipped with a ferrule 24 adjacent the point of emergence of the skinner portions 17 and 18 from the woven jacket 15. Oppositely projecting wing portions 25 are provided on one end of the ferrule 24 to fit into the groove 11 in the block and against the

inner faces of the lugs 10. The ferrule 24 rests in the cavity 7 and a portion of the cord 12 covered by the woven jacket 15 rests in the neck portion 9 of the cavity. The wing portions 25 on the ferrule 24 in cooperation with the groove 11 and the lugs 10 serve to prevent longitudinal movement of the cord 12 relative to the block 1 so that pulling on the cord 12 will not cause withdrawal of the tip terminals from the terminal screws in the block. Two opposite edge portions of the slab portion 2 are deeply indented to provide passageways 26 and 27 for wires. The passageways are made wide at the inner portion and constricted toward the outer edge of the block to provide a space suitable for running wires therethrough and projections 28 extending partially across the mouth of the indentation to guard against accidental displacement of the wires from the passageway.

As shown in Fig. 2 a pair 29 of insulated wires is led to the block 1 from an opposite direction to that of the cord 12. The wires 29 may be, for instance, wires of a telephone system. The wires 29 are run in twisted form between the foot portions 3—3 of the block and are then separated and passed partially around the foot portions 3—3 and through the passageways to the front of the block and thence to the terminal screws on the front of the block. Bared end portions of the wires 29 are hooked around the terminal screws and the terminal screws are then screwed down to hold the wires 29 in electrical connection with the tip terminals of the telephone cord. In Fig. 2, which is a rear view of the block, an embossing 30 is shown. This embossing is the back part of the cavity 7 formed in the front of the block.

In Fig. 3 the block 1 is shown mounted on a wall 31. The foot portions 3—3 rest against the wall 31 and maintain the slab portion 2 spaced from the wall. The block is secured to the wall 31 by means of screws 32 which pass through the foot portions 3—3 and into the wall 31. The foot portions permit a secure mounting on an uneven wall surface and prevent strains being set up in the body of the block as would be the case with a block with a solid base with two screws pulling it up against an uneven wall surface. The heads of the screws set into recesses 33 provided in the front face of the block, thus not interfering with the connection of the wires or cord tips on the face of the block.

The embossing 5 on the front of the block serves as a rest for a cover 34. The cover 34 is substantially square in form and comprises the side walls 35 and a front wall 36, the back of the cover being open to permit placement of the cover over the block 1. The embossing 5 on the front of the block is long enough to maintain the front wall 36 of the cover spaced from the insulated wires and the terminals disposed on the front of the block. The side walls 35 of the cover are stepped inwardly over a portion of the front of the block 1 as shown at 37 and openings are provided in two of the side walls 35, one of the openings being located in position to permit entrance of the cord 12 and the other to permit entrance of the wires 29. The central portion of the front wall 36 of the cover is apertured and inwardly indented and embossed at 38 to accommodate a holding screw 39 which turns into an internally threaded member 40 embedded in the slab portion 2 at the base of the ring-shaped embossing 5. When the screw 39 is turned into the member 40, the cover is sprung slightly in-

ward, providing a constant pressure tending to keep the screw from loosening. This presses the embossing 38 of the cover against the embossing 5 of the block and the cover 34 is thereby clamped to the block so that the stepped portion 37 of the side walls 35 engages edges of the slab portion. However, the cover of the block is formed so that the edges of the cover do not touch the wall 31 on which the block is mounted. This permits a roughly trimmed edge to be used on the cover for manufacturing economy, without the danger of scratching the surface on which the block is mounted when mounting or removing the cover.

The structure and arrangement above described provide a terminal block in which a main slab portion of the block is maintained in spaced relation to a wall surface on which the block is mounted. A wire or set of wires may, therefore, be run between the slab portion of the block and the wall. The wires are led in twisted form between foot portions of the block and are then separated and snubbed around the foot portions. This permits the wires to be separated and led to different portions of the block without tending to untwist them or separate them in the exposed portion before the wires enter the block as would otherwise be likely to occur. The wires are then led through indentations in the slab portion to terminal screws supported on the front face of the slab portion. The wires 29 are maintained in the required position cooperatively by the slab portion 2 of the block and the foot portions 3 and by the wall 31 upon which the block is mounted. The running of the wire under the block gives adequate room for storage of excess wire length which is desirable in case of later breakage of the end of this wire. Also, all the fanning-out of the wires to reach the desired terminals is done below the surface of the block, keeping the top clear for connecting the wire and cord conductors. The snubbing of the wires around the foot portions 3 of the block prevents strains from being applied to the points of connection of the wires when a pull is exerted on the wires 29. The skinner portions 17, 18 of the telephone cord are located on the front face of the block and are protected against longitudinal strain by reason of the ferrule 24 and the wing portions 25 thereof and the location of these parts in the cavity 7 and relative to the lugs 10. The spacing between the lugs 10 and the embossing 5 and the shape of the embossing 5 and of the cavity 7 are such that the cord fits snugly in place and the wing portions 25 will not slip up and out of place while the cover is being mounted and fastened in place. Also, the shape of the embossing 5 and the embossing 38 in the cover is such as to force out of the way the skinner portions 17 and 18 of the telephone cord in case they are not placed properly and would otherwise tend to be pinched and damaged when the cover is fastened. The cover 34 protects all the points of connection of the wires on the block from dust and contact with other foreign substances. The cutaway portion 76 of the cover is so proportioned that when the cover is fastened it holds down the body of the cord 12 so that the wing portions 25 of the ferrule 24 are held securely in place and the wires 29 are pressed against the wall 31.

It is to be noted that in the structure and arrangement described above the skinner portions 17 and 18 of the telephone cord are relatively short and that the skinner portions are shown

merely as passing around the embossing 5 and disposed only on the front surface of the block. In some cases, however, it is the practice to provide longer skinner portions on telephone cords than those shown in Fig. 1. It is also to be noted that in Figs. 1 and 2 only two pairs of wires have been brought into connection and there are four terminal screws supported on the block. In cases where the longer skinner portions are provided on the telephone cord the skinner portions are belayed around the block as shown in Figs. 7 and 8. These figures also show a telephone cord comprising four conductors and telephone wires of equal number brought into connection with the conductors of the cord on the block.

The block shown in Figs. 7 and 8 is identical in structure to the one shown in Figs. 1, 2 and 3. The parts shown in Figs. 7 and 8 corresponding to the parts shown in Figs. 1, 2 and 3 are, therefore, identified by the same numerals and no further description is made of such parts. The telephone cord 41 comprising four conductors enclosed in a woven jacket is led to the front face of the block 1 and the ferrule 24 is disposed in the cavity 7. The relatively long skinner portions of the conductors in the cord are then belayed around the block to keep all parts within the bounds of the block and therefore adapted to be covered by a cover, not shown in these figures but corresponding to the cover 34 shown in Fig. 3. The tip terminals on the conductors of the cord are then brought into connection with required terminal screws on the block. The manner of belaying the skinner portions of the cord may be traced as follows: the skinner portion 42 after emerging from the jacket 41 is passed across a portion of the front face 6 of the block and thence through the passageway 27 and across the rear of the block and through the passageway 26 and across the front of the block to the terminal screw 21. The skinner portion 43 is in a similar manner belayed around the slab portion of the block and brought into connection with the terminal screw 22, the skinner portion 43 taking a course from the front of the block and through the passageway 26 to the rear of the block and then across the rear of the block, and through the passageway 27 and across the front of the block to the terminal screw 22. The skinner portions 44 and 45 are likewise belayed around the slab portion of the block and each is led to a separate terminal screw, the skinner portion 44 being led to the terminal screw 20 and the skinner portion 45 being led to the terminal screw 19. The belaying of the skinner portions of the conductors may be accomplished even when the block is already secured to a support by means of the mounting screws since the foot portions 3—3 hold the slab portion 2 of the block spaced from the support. The telephone wires 46, in this case comprising four conductors, are led in twisted form to the rear of the slab portion of the block as shown in Fig. 8 and between the foot portions 3—3. Two of the conductors are then bent partially around one of the foot portions 3 and then passed through the passageway 27 and across part of the front of the slab portion to required terminal screws. The other two conductors of the telephone wires 46 are bent partially around the other foot portion 3 and then passed through the passageway 26 to the front of the slab portion. The conductors are then led across a portion of the front of the slab portion to required terminal screws. Each terminal screw serves to hold

in electrical connection one of the conductors of the telephone cord and one of the conductors of the telephone wires 46. Since the telephone wires 46 are led partially around the foot portions 3 and through the passageways of the slab portion before being connected to the terminal screws any ordinary strain applied to the wires 46 exterior of the cover 34 will not result in disconnection of the wires from the terminal screws.

In Figs. 4 and 5 a terminal block of slightly different form is shown to the one above described. This terminal block provides a means for connecting a greater number of wires than the one shown in Fig. 1. One of the many applications for it is in connection with what is known as a keyset telephone. In such telephone apparatus more than two pairs of wires are required. The illustration shows accommodation for two sets of wires each of which contains eight conductors. The number of wires to be accommodated, however, might be more or less than the number shown since it is obvious that the size of the block might be increased and a larger number of terminal screws provided, where necessary, or only a fraction of the number of terminal screws might be utilized for a smaller number of wires.

The terminal block shown in Figs. 4 and 5 is a block 47 of insulating material comprising a slab portion 48 having a front face 49 and a rear face 50. An annular embossing 51 is provided on the front face 49. The block is apertured to accommodate mounting screws 52, the apertures for the screws being countersunk. Eight terminal screws 53 are supported in spaced relation on the front face of the slab portion, the terminal screws being in threaded engagement with internally threaded bushings 54 molded into or otherwise secured in the slab portion 48. The embossing 51 provides a rest for a removable cover, not shown, the cover being of the type 34 shown in Fig. 3 but formed and dimensioned to suit the form of terminal block. An internally threaded bushing 55 is provided in the bottom of the embossing 51 to receive a holding screw for the cover. A foot portion 56 made in the form of a ridge projects from the rear face 50 of the slab portion. The foot portion 56 serves to maintain the slab portion 48 spaced from a wall when the terminal block is mounted thereon by means of the mounting screws 52. The foot portion 56 is located inwardly of end portions of the slab portion and is increased in width in the vicinity of the apertures 57 provided for the mounting screws and partially encircles the bushing 55. End portions of the slab portion of the block are indented to provide passageways 58 and 59 for wires. The passageways are made wide at the inner portions and constricted toward the outer edge of the block to provide a space suitable for running wires therethrough and projections 60 extending partially across the mouth of the indentation to guard against accidental displacement of the wires from the passageway. Spaced projections 61 are provided on one of the long edge portions of the slab portion and correspondingly spaced indentations 62 are provided on the opposite long edge portion. These projections and indentations serve as positioning means for the blocks when more than one block is required, the blocks in this case taking the positions shown in Fig. 6 wherein two blocks have been placed in edge-to-edge relation with the projections 61 of one block set in the indenta-

tions 62 of the other block to maintain the blocks against relative movement.

As shown in Figs. 4 and 5 a cord conductor 63 comprising a woven jacket 64 and skinner portions 65 of conductors extending from within the woven jacket is brought to the block 47, the skinner portions being equipped with tip terminals and extending over the front face of the slab portion. The skinner portions 65 are fanned out over the front face of the block and the tip terminals are brought into connection with the terminal screws 53. The cord 63 may be, for instance, a telephone cord comprising the required number of insulated conductor wires and a stay cord 66. The stay cord 66 is passed through an aperture 67 in the slab portion of the block and is suitably tied to anchor the telephone cord to the block. The point of emergence of the skinner portions 65 from the woven jacket 64 is held in an indentation 68 in the slab portion. Insulated conductors 69 are led in twisted form from an opposite direction to that of the cord 63 and under the slab portion of the block. The conductors 69 may be, for instance, conductors of a telephone system. The conductors 69 are equal in number to the number of conductors in the cord 63 and are suitably divided into two groups beneath the slab portion of the block. One group is passed through the passageway 58 and then fanned out over the front face of the block and brought into connection with the terminal screws 53 in the vicinity of the passageway 58. The other group is passed through the passageway 59 and then fanned out over the front face of the block and brought into connection with the terminal screws 53 in the vicinity of the passageway 59. The running of the conductors 69 through the passageways in the block and over the front face provides sufficient snubbing of the conductors against the block to prevent ordinary strains applied to the conductors from causing disconnection of the conductors from the terminal screws when the terminal screws are screwed down. The stay cord 66 tied to the block prevents strains applied to the telephone cord 63 from causing disconnection of the tip terminals from the terminal screws. The conductors 69 may be run under the slab portion 48 of the block even when the block is already mounted on a wall surface since the foot portion 56 maintains the slab portion of the block spaced from the wall surface. A removable cover of the type shown in Figs. 3 and 6 but shaped and dimensioned to fit over the block shown in Figs. 4 and 5 may be applied over the block and held thereon by means of a cover holding screw entering the internally threaded bushing 55.

In Fig. 6 two blocks 47 are mounted on a support, not shown, by means of the mounting screws 52 and are insured of correct positioning of one relative to the other by means of the projections 61 on one block and the indentations 62 on the other. This arrangement will take care of double the number of wire connections shown in Figs. 4 and 5. In this case, a cord conductor 70 having, for instance, sixteen skinner portions 71 extending therefrom is led to the first block. The skinner portions 71 are fanned out over the front faces of the blocks and the tip terminals are brought into connection with the terminal screws 53. The stay cord 72 of the cord conductor 70 is passed through the aperture 67 in the first block and then tied to anchor the cord conductor 70 to the block. Insulated conductors 73 equal in number to the conductors in the cord

70 are led in twisted form under the slab portions of the blocks and through the passageways 58—59 to the front faces of the blocks. The conductors 73 are then fanned out and brought into electrical connection with the terminal screws 53. The cover 74 is dimensioned to fit over the two blocks. The cover is apertured and indented and inwardly embossed at a point in register with the embossing 51 of one of the blocks and is provided with a cover holding screw 75 to enter the internally threaded bushing 55. Two of the side walls of the cover are recessed at 76 to permit passage therethrough of the cord 70 and the conductors 73.

In Figs. 9 to 13, inclusive, a terminal block is shown of somewhat different form to the ones shown in the preceding figures. Fig. 13 is a front face view of the block drawn on an enlarged scale relative to the other figures. This block may be used for the same purpose as the ones above described. In this block, however, provision is made for receiving an S-hook attached to a stay cord and means are provided on the front face of the block to hold in required positions tip terminals on the skinner portions of conductors. The block 77 as shown in Fig. 13 comprises a slab portion 78 of insulating material. On the front face 79 are terminal screws 80 supported in spaced relation in internally threaded bushings 81, the bushings 81 being molded into or otherwise secured in the block 77. Spaced, countersunk apertures 82 are provided in the block to receive mounting screws 83 shown in Figs. 9 and 11 and by which the block may be mounted on a suitable support, not shown, the head portions of the screws being disposed below the level of the front face of the block. Foot portions 84 as shown in Figs. 10 and 12 are provided on the rear face 85 of the block to hold the slab portion 78 spaced from the support. The foot portions 84 are tubular and are in register with the apertures 82 so that the mounting screws 83 will extend through the foot portions and into the support. A bushing 86 is provided in each foot portion 84 to prevent fracture of the foot portion by the mounting screw. An aperture 87 is provided near the central portion of the block to accommodate a holding screw for a removable cover, not shown, the cover being of the type shown in the preceding figures but formed and dimensioned to suit the block. An internally threaded bushing 88 is embedded in the block in register with the aperture 87. Spaced on opposite sides of the aperture 87 and on the front face of the block are two arcuately shaped embossings 89. The embossings 89 form a rest for the removable cover and also cooperate to hold one looped end portion of an S-hook 90 of a stay cord 91 as shown in Figs. 9 and 11. The embossings 89 have their concave sides facing each other and are spaced apart at their ends sufficiently to allow passage therethrough of the other end of the S-hook, this other end of the hook being attached to the stay cord 91. When a cover is applied to the terminal block the cover holding screw passes through the S-hook of the stay cord and into the bushing 88. The cover is therefore pressed into engagement with the embossings 89 and across the receptacle provided for the S-hook. This arrangement together with the extension of the shank portion of the cover holding screw through the S-hook insures anchorage of the stay cord.

Two of the corner portions of the slab portion of the block 77 are indented to provide

passageways 92 and 93 for wires. The passageways 92 and 93 are made relatively wide at the inner portions and constricted at the mouth portions to provide overhanging projections 94 extending partially across the mouth portion. The projections 94 serve in some measure to prevent displacement of the wires from the passageway. The upper edge of the slab portion is indented at 95 to receive an end portion of a jacket of a telephone cord. The lower edge portion of the block is indented to provide seats 96 and 97 adapted to receive the upper edge portion of another block. The lower edge is further indented to provide a passageway 98 for wires, the passageway being made wider at its inner end than at the mouth, and the mouth being partially closed by projections 99 and 100.

In the front surface of the slab portion are grooves 101. The grooves extend radially of the bushings 81 and are adapted to receive the shank portions of tip terminals on the skinner portions of conductors such as shown, for instance, at 102 in Figs. 9 and 11. The grooves are located and directed so that the shank portions of the tip terminals cannot come together to form a short circuit. Although the means for preventing the shank portions of the tip terminals from coming together are shown as being grooves 101 in the front of the slab portion some result may be obtained by providing raised barriers on the front of the slab portion between the tip terminals.

In Figs. 9 and 10 two blocks 77 are shown placed together in edge-to-edge relation to provide a means for electrically connecting two sets of wires each of which contains sixteen conductors. Each set of wires is enclosed in a woven jacket. One set of wires 103 may be, for instance, a telephone cord including a plurality of insulated conductors and a stay cord 91, the stay cord being equipped with an S-hook. The other set of wires 104 may be wires of a telephone system. Skinner portions 105 of the telephone cord are passed across the rear face of the slab portions of the blocks and are brought through the passageways 92—93 to the front face. The shank portions of the tip terminals 102 are then placed in the grooves 101 and the ends of the tip terminals are brought under the heads of the terminal screws 80. End portions of the wires of the set 104 are stripped of the woven jacket and are passed across the rear face of the block and through the passageways 98. The wires are then fanned out across the front face of the block and are brought into electrical connection with the terminal screws 80. Correct positioning of the blocks is insured by the particular form of the upper and lower edge portions since the upper edge portion of each block is made of suitable shape to fit the indented lower edge of another block.

In Figs. 11 and 12 two blocks 77 are shown placed end to end. The S-hook 90 of the stay cord 91 is positioned between the embossings 89 of the block on the left. Where the skinner portions of wires are longer than required to reach the terminal screws they may be looped around a foot portion 84 of a block 77 as shown in Fig. 12. A removable cover, not shown, and of required shape and dimensions may be applied to the blocks arranged as shown in Figs. 11 and 12, the cover holding screw being engaged in the block on the left and passing into the bushing 88. Also, two cover holding screws may be used, one engaged in each block.

In all of the terminal blocks above described foot portions are provided to maintain a slab portion spaced from a support on which the block is mounted so that wires may be run under the slab portion. The block structures also have passageways formed in the slab portions so that wires may be extended from the rear of the slab portion to the front face. The block structures therefore are quite different from the common and well-known form in which there is no slab portion spaced from a support on which the block is mounted and in which the wires to be connected are merely run over the front face of the block to terminals mounted thereon.

15 What is claimed is:

In combination with a set of conductor wires and a telephone cord equipped with anchoring means, a one-piece connector block comprising a slab of insulating material, terminal screws

supported in spaced relation on the front face of said block, spaced foot members extending from the rear face of said block and located inwardly of outer edge portions of said block, said foot members cooperatively forming on the rear face of said block a passageway for wires of said set, and serving as snubbing posts for said wires, opposite edge portions of said block notched out to form passageways for wires of said set to permit extension of said wires from the rear face of said block to said terminal screws, finger portions on said block, said finger portions converging part way across the notches formed in said block and tending to retain the conductor wires in the notches and means formed in said block for anchoring the telephone cord to said block.

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