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Bernstein

[54] GANG CONNECTOR CLAMPABLE TO A COMMUNICATION CABLE TERMINAL BOARD

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 - 339/150 B

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[11] **3,918,785**

[45] Nov. 11, 1975

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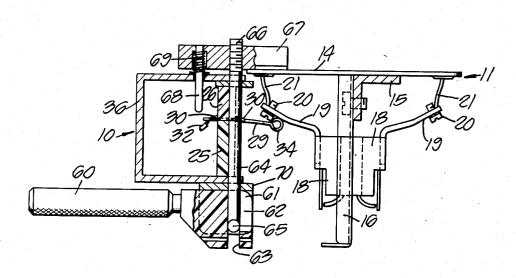
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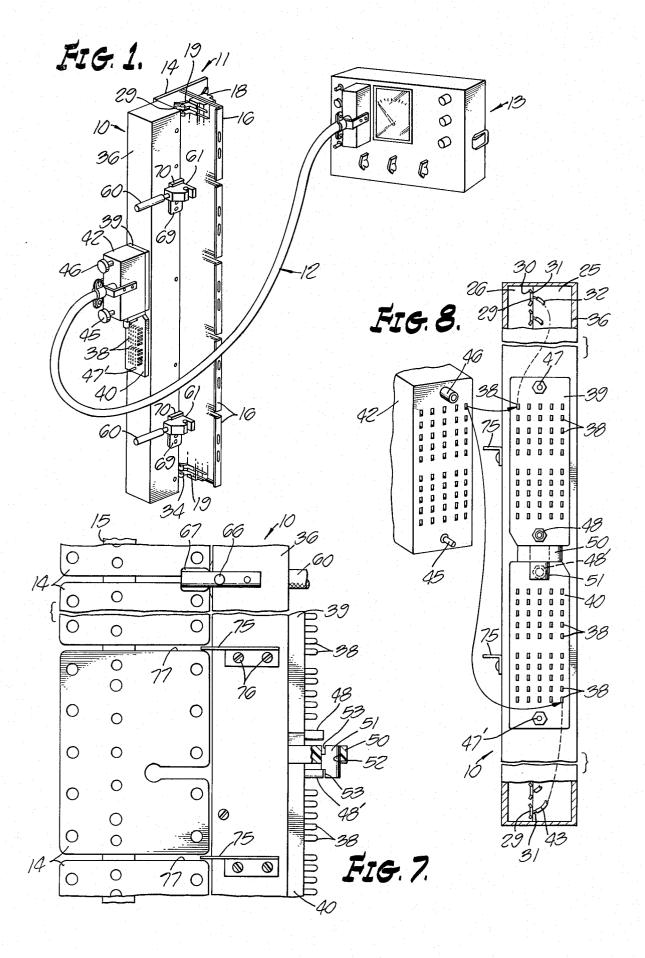
[57] ABSTRACT

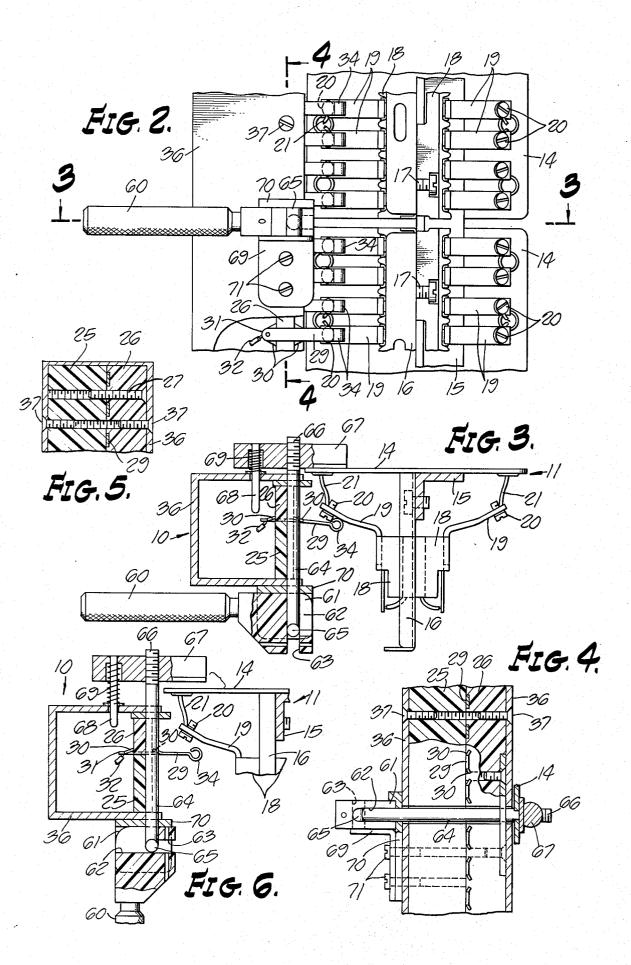
A gang connector adapted to make simultaneous connection to each of a multiplicity of terminals along either lateral side of a communication cable terminal board. The connector is provided with a pair of cable connector units only one of which is unblocked and capable of use at a given time depending upon which end of the gang connector is uppermost thereby assuring that the cable conductors connected to the terminal strips on each side of the board can be tested or serviced in the same predetermined order. A pair of clamps carried by the gang connector cooperate with the lateral edge of the terminal board, the adjacent terminal strips and the resilient connector contactors to anchor the gang connector firmly assembled to the terminal board with a minimum of interference with access to the terminal board components.

26 Claims, 8 Drawing Figures



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GANG CONNECTOR CLAMPABLE TO A COMMUNICATION CABLE TERMINAL BOARD

This invention relates to gang connectors, and more particularly to a unique and improved multiple contact connector readily and rigidly securable to either lateral 5 edge of communication cable terminal board to permit checking all terminals along one side of the terminal board by personnel at a remote station.

As is well known, central office communication stations are equipped with main distribution frames on 10 which are compactly mounted massed arrays of cable protector and the like terminal boards typically equipped with many pairs of terminal strips each connected to a particular cable conductor. These terminals strips are conventionally arranged in parallel vertical 15 rows along the fronts of such main frames for convenient access in changing connections, verifying, testing and performing a variety of service operations well known to those engaged in communication operations. Heretofore, it has been common practice to station one 20 man at the terminal board with a pair of test probes connected through suitable flexible leads to an instrument man stationed at test equipment located conveniently to all terminal boards of a given main frame. The technician equipped with the probe is required to 25 manually hold the probes on a selected pair of wires and to maintain them firmly in position until the servicing opration is complete. This is a boring, tedious operation which is slow at best, exacting and costly.

Proposals have been made heretofore for gang con- 30 nectors specially designed for use on a particular type of terminal board. Some of these are suitable for connecting only a limited number of terminal strips to test equipment whereas others have provision for simultaneous connection to at least all strips along one or, in ³⁵ some cases, along both sides of a given terminal board. However, these prior designs are subject to certain limitations and disadvantages sought to be avoided by the present invention. For example, prior designs are so constructed as substantially to conceal and obstruct access to that portion of the terminal board over which the gang connector is mounted. The clamping means provided for holding the connector to the terminal board are complex, slow to operate and unreliable in 45 assuring positive contact with all juxtaposed terminal strips. Moreover, and particularly objectionable is the fact that no prior gang connector construction is capable of use with a recently introduced widely used terminal board known commercially as the Ericson board. This board has a generally T-shaped main body having 25 pairs of terminal strips insulated from one another and secured to the opposite sides of the T-stem portion of the board, with one end of the terminal strips lying closely spaced from the T-head portion of the board.

The invention gang connector is readily adapted for ⁵⁵ the Ericson and other terminal boards and includes a separate flexible contactor projecting from its main body positioned to make wiping contact with one only of all terminal strips along one lateral edge of the board. A pair of toggle clamps carried by the main body of the connector have jaws engaging about the rear edge of the board and effective as they are closed to stress each of the resilient contactors and lock the connector firmly and immovably assembled to the board. The gang connector is provided with duplicate separable type cable connector assemblies having one set of the terminals of one thereof connected to the

gang connector contactors in reverse sequence to the similar connection of the other set. Additionaly gravity responsive means is provided for automatically barring use of one or the other set of terminals depending on which end of the gang connector is uppermost. This assures that the test technician can proceed with a service program with the knowledge that he is testing a correspondingly numbered pair of conductors whether the gang connector is mounted on the right or left side of the terminal board. Another feature of the design is the provision of pilot locators mateable with similarly positioned notches in the edge of the terminal board thereby assuring that the connector contactors are accurately alignable with a corresponding terminal strip of the terminal board.

Accordingly, it is a primary object of the present invention to provide an improved, highly compact, lightweight, rugged gang connector having a separate resilient contactor registerable with a respective terminal along one side of a terminal board and firmly mountable in contact therewith.

Another object of the invention is the provision of a communication cable gang connector quickly and securely mountable along either side of a selected terminal board anchored to the main frame of central office equipment.

Another object of the invention is the provision of a gang connector selectively mountable along either side of a main frame terminal board with its individual contactors in firm wiping contact with all terminal strips along a selected side of the board.

Another object of the invention is the provision of a terminal board gang connector mountable along one lateral edge portion of a terminal board and held locked thereto in major part by placing each of the contactors under stress.

Another object of the invention is the provision of a gang connector having a multiplicity of resilient contactors clamped between and mounted crosswise of a main body with the exposed outer ends thereof positioned to have wiping contact with a respective terminal strip of a cable terminal board.

These and other more specific objects will appear upon reading the following specification and claims and upon considering in connection therewith the attached drawing to which they relate.

Referring now to the drawing in which a preferred 50 embodiment of the invention is illustrated:

FIG. 1 is a general perspective view of an illustrative embodiment of the invention gang connector mounted along one side of a typical 25 pair terminal board and connected via a flexible cable to remotely located ser-⁵⁵ vicing equipment;

FIG. 2 is a fragmentary front elevational view on an enlarged scale of a portion only of FIG. 1;

FIG. 3 is a cross-sectional view taken generally along line 3-3 of FIG. 2;

FIG. 4 is a fragmentary cross-sectional view taken along line 4-4 on FIG. 2;

FIG. 5 is a cross-sectional view through one end of the gang connector taken substantially on the same plane as line 4-4 on FIG. 2;

FIG. 6 is a fragmentary cross-sectional view similar to FIG. 3 but showing the toggle clamp in its fully open position;

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FIG. 7 is a fragmentary elevational view of one end portion of FIG. 1 as viewed from the rear face thereof; and

FIG. 8 is a side elevational view of the gang connector with portions broken away and indicating the manner in which the female cable connector is positioned for assembly to one or the other of the male connector assemblies depending upon which end of the gang connector is uppermost.

lustrative embodiment of the gang connector. designated generally 10, is shown mounted to the left hand edge of a 25-pair cable terminal board 11 generally known commercially as the Ericson board. Gang connector 10 is shown coupled to the left hand end of a 15 11, and that test equipment 13 (FIG. 1) may be used flexible test cable 12 having its right hand end coupled to test and verifier equipment 13.

Referring to FIGS. 2-6, it will be understood that terminal board 11 has a T-shaped metal main body including a T-head base formed by a plurality of plates 14,14 20 each secured by an angle iron 15 to a like number of T-stem plates 16 normal to base plates 14. Rigidly secured to the opposite faces of plates 16, as by screws 17 (FIG. 2), are long blocks of insulation material 18 rigidly supporting the vertical legs of a closely spaced 25 row of L-shaped terminal strips 19. One leg of these terminal strips lies generally parallel to base plates 14 and the outer end of each is provided with a screw 20extending through the terminal strip and used to clamp one end of a cable conductor 21 to each of strips 19. 30 8, is connected to the upper left hand one of the termi-The opposite ends or the vertical legs of the terminal strips may be connected to other conductors or to line protector devices.

The gang connector assembly 10 will now be described by particular reference to FIGS. 3-6. Connec-³⁵ tor 10 has a main body here shown as comprising a pair of long rectangular strips 25,26 of insulation material held rigidly secured together at intervals by screws 27 (FIG. 5). Clamped securely in place crosswise of and between strips 25,26 are resilient metallic contactors 40 29 of phosphor bronze or the like resilient metal. The midlength of each strip has outturned tangs 30,30 positioned to engage the remote sidewalls of main body strips 25,26 in the manner best shown in FIGS. 3 and 45 6 and cooperating to lock contactors 29 firmly anchored between strips 25,26. The inner ends 31 of contactors 29 are formed with an opening or notch to provide a soldering terminal lug for a pair of lead wires 32, to be described more fully presently. The outer longer 50 ends of contactors 29 are preferably curled as indicated at 34 with each being positioned to bear against the surface of a respective one of the horizontal legs of terminal strips 19. To be noted from FIGS. 2 and 3 is the fact that the curled ends 34 engage terminals 19 immedi-55 ately adjacent the heads of clamping screws 20 for a purpose to be explained more fully presently.

The main body of gang connector 10 is provided with a deep cover 36 normally held firmly assembled to the sides of strips 25,26 as by screws 37 (FIG. 5). This 60 cover encloses the terminal ends 31 of contactors 29 and the lead wires 32 connecting these terminals to a respective male terminal of a pair of identical cable connector members 39,40. As here shown, members 39.40 are mounted in end to end alignment on one ex-65 terior side of cover 36, There is a separate terminal 38 on each of members 39,40 for each of the contactors 29.

Referring to FIG. 8, it will be noted that the male terminal 38 in the upper left hand corner of connector member 39 is connected to the top most contactor 29, successive ones of the other contactors 29 being connected in sequence to successive ones of terminals 38 with the 50th contactor being connected to the terminal 38 in the lower right hand corner of member 39. Accordingly, it will be understood that cable connector 39 will be used and mated with the mating female con-Referring initially more particularly to FIG. 1, an il- 10 nector member 42 of cable 12 if gang connector 10 is assembled to the left hand side of terminal board 11, as it is in FIG. 1. It will then be evident that the topmost contactor 29 is in contact with the topmost terminal strip 19 at the upper left hand corner of terminal board to check conductors 1 to 50 attached to the left hand row of terminal strips 19.

It will be understood that each contactor 31 is provided with a second lead wire 43 (FIG. 8) having its opposite end connected to a respective one of the male terminals 38 of cable connector 40. To be noted however, is the fact that lead wires 42 are connected to the terminals 38 of member 40 in reverse sequence from the order just described for lead wires 32. In other words, the lead wire 43 connected to terminal 38 at the lower right hand corner of member 40 is connected to the last contactor 29 at the lower end of gang connector 10 as it is shown in FIG. 8. Likewise, the contactor 29 at the upper end of connector 10, as shown in FIG. nals in connector member 40.

The means disclosed herein for safeguarding against the possibility of connecting the female cable connector member 42 to the wrong one of the two male connector members 39,40 will now be described. As is customary with cable connectors of the type shown at 39,40 and 42, the opposite ends of these members are provided with dissimilar assembly screws or thumb nuts. For example, member 42 is provided with a threaded thumb screw 45 having external threads mateable with an internally threaded tube on connector member 39, and a second thumb screw 46 having an internally threaded tubular end mateable with an externally threaded post 47 on connector member 39. Referring to FIGS. 7 and 8 in particular, it will be understood that a bracket 50 fixed to cover 36 supports a gravity responsive shuttle 51 loosely supported for reciprocation in a bore 52. The opposite end corners of shuttle 51 are cut away as indicated at 53 sufficiently to limit the reciprocal movement of shuttle 51 lengthwise of itself between one extreme position overlying the threaded sleeve 48' and a second extreme position overlying the outer end of threaded sleeve 48. When one end of the gang connector 10 is uppermost, the entrance to one of these threaded sleeves 48,48' is blocked and when the gang connector is inverted 180°, the other end of shuttle 51 overlies the entrance end to the other threaded sleeve. It will thus be evident that the technician is put on notice immediately that an attempt is made to connect cable connector 42 to one of members 39 and 40 that only the uppermost one has the capability of receiving both thumb screws 45,46. Accordingly, the technician is forewarned not to attempt assembling connector 42 over the lowermost one of connector members 39,40. It is likewise evident that whichever end of connector 10 is uppermost that the upper right hand one of terminals 38 is then connected

to the topmost one of terminal strips 19 of the terminal board.

Suitable clamp means for anchoring connector 10 to a terminal board will now be described with particular reference to FIGS. 1–7. The clamp means there shown 5 include a pair of toggle levers 60 having a cam-shaped end 61. This cam is deeply notched crosswise of its end as is indicated at 62 and this slotted end is provided with a deep, narrow notch 63 extending cross-wise of slot 62 and opening through the right hand edge of the 10 handle as viewed in FIG. 6. A long bolt 64 slidably and captively supported crosswise of the main body members 25,26 is provided with a cross-head 65 seated in notch 63. The shank of this bolt operates in slot 62 and its threaded end 66 is provided with a clamping jaw or 15cross-head 67 lying generally parallel to the row of resilient contactors 29. The right hand end of jaw 67, as viewed in FIG. 6, is positioned to overlap with and seat over one edge of the terminal board base plates 14. The other end of jaw 67 is held against rotation on threads 2066 by a pin 68 slidable along an opening in the sidewall of cover 36. A compression spring 69 embraces pin 68 with one end bearing against the exterior of cover 36 and the other end bearing against cross-head or clamping jaw 67 thereby urging the latter to its extended open position. The cam portion 61 of lever 60 is held captive between a pair of L-shaped brackets 69,70 (FIGS. 2 and 4) by a pair of screws 71.

is accurately positioned along the edge of board 11 before being clamped thereto is provided by a pair of pilots or locator fingers 75,75 (FIG. 7) secured to cover 36 by screws 76 with their free ends projecting beyond the edge of the cover and parallel to the clamping jaws 35 67,67. Locator fingers 75 have a close sliding fit in notches 77 formed in either lateral edge of base plates 14 of the terminal board. It will be understood that locator fingers 75,75 and cooperating notches 77 assure accurate registry of each of contactors 29 with a re- 40 lateral side thereof, spective one of the terminal strips 19.

The mode of assembling gang connector 10 to the terminal board will be quite evident from the foregoing detailed description of connector 10 and the terminal board 11. The operator first makes certain that the tog- 45 gle clamp handles 60,60 are in their open upright position as illustrated in FIG. 6 wherein the clamping jaws 67 are held in their fully open position by springs 69. It is also important that the test cable 12 and its female connector member 42 can be disconnected from gang 50connector 10. The operator grasps the left hand edge of cover 36 as illustrated in FIG. 1, and moves it toward one lateral edge of terminal board 11, until the locator fingers 76 enter notches 77 in the edge of the terminal board. This having been accomplished the operator 55 merely uses his other hand to rotate toggle levers 60,60 90° to the position shown in FIG. 1 closing clamping jaws 67 against the rear corners of base 14 of the terminal board as is shown in FIG. 3. As the toggle clamps 60 close, the main body of connector 10 is forced toward base plates 14 thereby deflecting and pressing the curled ends 34 of each of the contactors 29 firmly against the surface of a respective one of terminals 19. Contactors 29 are flexed and placed under consider-65 able stress as the rounded ends 34 wipe against and rotate the surfaces of terminal strips 19 and come to rest against the stops provided by the heads of screws 20.

During this assembly operation and as soon as one end of gang connector 10 is elevated, shuttle 51 (FIG. 7) gravitates so that its lower end overlies the end of the adjacent one of threaded sleeves 48,48' depending on which end of the connector 10 is uppermost. Any attempt by the operator to connect the female cable connector 42 to the lowermost one of the mating connector members 39 or 40 will be futile and he will be reminded that he should mate connector 42 only with the upper ones of these two connectors. In order to accomplish this, he must position the internally threaded thumb screw 46 of that connector uppermost else it will be impossible to mate connector 42 with the thumb screws with the appropriate one of fasteners 47,48 or 47',48'.

Once the above described assembly has been completed the technician proceeds to control station 13 and manipulates the test, verifier and service equipment there shown to make whatever tests and servicing operations he desires. This procedure is carried out with full assurance that the similarly numbered ones of terminal strips 29 can be tested irrespective of whether connector 19 is mounted to the right or left side of the terminal board.

While the particular gang connector clampable to a communication cable terminal board herein shown and disclosed in detail is fully capable of attaining the objects and providing the advantages hereinbefore stated, Suitable means for assuring that gang connector 10_{30} it is to be understood that it is merely illustrative of the presently preferred embodiment of the invention and that no limitations are intended to the detail of construction or design herein shown other than as defined in the appended claims.

I claim:

1. A gang connector quickly attachable to and detachable from an elongated terminal board of the type having a multiplicity of pairs of conductor terminal strips in closely spaced apart array along at least one

said gang connector having a rigid main body substantially as long as said terminal board and rigidly supporting separate resilient contactors having one end thereof positioned to make simultaneous contact with a respective one of said terminal strips along at least said one lateral side of said terminal board.

said main body at spaced apart areas theralong having manually operable clamping jaw means engageable with the juxtaposed exposed outer edge portion of the terminal board and operable as said jaw means are tightened after said connector is in its proper operating position to place said resilient contactors under stress and cooperating with said stressed resilient contactors to hold said gang connector rigidly assembled to one lateral half of said terminal board with the terminal strips along one side thereof in firm electrical contact with a separate one of said resilient contactors,

with said resilient contactors each comprising a similar flexible strip having portions thereof projecting from the opposite lateral sides of said main body, and first and second disconnectable cable connector means mounted on said gang connector, each of said cable connector means having a separate terminal thereof connected to a respective one of said contactors but in reverse sequence, and

means automatically responsive to end-for-end inversion of said gang connector to block the attachment of a cable connector to one of said first and second cable connector means.

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2. A gang connector as defined in claim 1 characterized in that said first and second cable connector means are supported in proximity to one another, and gravity responsive means movably supported adjacent said first and second connector means normally blocking connection of a mating cable connector to one of said first 10 and second connector means depending upon which end of said gang connector is uppermost.

3. A gang connector adapted to be temporarily clamped to either side of a terminal board having a multiplicity of terminal strips along either side thereof, 15 said gang connector having an elongated rigid main body having a multiplicity of resilient contactors spaced to contact a respective one of adjacent terminal strips, means for detachably clamping said gang connector to a selected side of a terminal board, a first and 20 a second set of cable connector terminals fixed to said main body and connected to a respective one of said resilient contactors, and means responsive to vertical inversion of said gang connector for blocking the connection of a cable connector terminals depending on which end of said gang connector is uppermost.

4. A connector as defined in claim 3 characterized in that said inversion responsive means comprises gravity responsive means captively supported on said gang ³⁰ connector and shiftable by gravity between first and second positions blocking assembly of a cable connector to one of said first and second sets of terminals.

5. A connector as defined in claim 4 characterized in that said first and second sets of terminals are con-³⁵ nected to said resilient contactors in reverse sequence.

6. A connector as defined in claim 5 characterized in that said first and second sets of cable connector terminals are arranged in aligned rows lengthwise of said main body, and said gravity responsive means being located close to the adjacent ends of said first and second sets of terminals.

7. A gang connector for quick detachable assembly to a terminal board of the type having a T-shaped main body supporting a row of terminal strips along either side of the T-stem portion of said main body,

- said connector having a main body generally coextensive in length with said terminal body and having locator means projecting therefrom and registerable with notch means along the edge of said terminal board if said main body is properly disposed opposite said edge,
- separate resilient contactors secured to said main body and positioned to engage a respective one of said terminal strips as said connector is clamped to said terminal board, and
- clamp means carried by said main body including jaw means engageable with the edge of said terminal board and operable as said jaw means is tightened to press each of said contactors into wiping pressurized contact with a respective one of said terminal strips,

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with said gang connector disposed to one lateral side of said terminal board when clamped in an operating position thereon thereby leaving the T-stem portion of said terminal board and a major portion of the terminal strips along each side thereof virtually exposed and accessible for servicing operations.

8. A gang connector as defined in claim 7 characterized in that said clamping means includes separate pivoting lever means at spaced apart points along the outwardly facing side of said gang connector and readily accessible for manipulation from the front side thereof. 9. A gang connector as defined in claim 7 character-

ized in that said resilient contactors comprise flexible strips arranged in a row with the width thereof in a generally common plane parallel to the longitudinal axis of said connector.

10. A gang connector as defined in claim 9 characterized in that the exposed outer ends of said contactors are curled about an axis extending lengthwise of said main body.

11. A gang connector as defined in claim 7 characterized in that a portion of the outer exposed ends of at least some of said contactors is shaped to interlock with a portion of said terminal strips as said clamping means is being tightened thereby to safeguard against detachment of said connector so long as said clamping means is tightened.

12. A gang connector for quickly detachable assembly to a terminal board of the type having a T shaped main body supporting a row of terminal strips along either side of the T-stem portion of said main body, said connector having a main body generally coextensive in length with said terminal board and having locator means projecting there from selectively registerable with notch means along either edge of said terminal board if said main body is properly aligned with one lateral edge thereof, a multiplicity of spring leaf contactors arranged in a row and projecting from said main body each positioned to engage one only of said terminal strips, toggle clamp means at spaced points therealong, each of said clamp means including a long rigid member extending crosswise of said row of contactors 40 and having cross-head means at either end thereof, one of said cross-head means comprising a clamping jaw engageable with the rear edge of the T-head of said terminal board and the other cross-head means being journalled in an operating lever having a cam-shaped 45 end for tightening said clamping jaw, and the tightening of said clamping jaw being effective to flex said contactors and store stress therein so long as said clamps remain tightened.

13. A connector as defined in claim 12 characterized in that the major portion of the main body of said connector when clamped to said terminal board is substantially offset along one lateral half of said terminal board leaving the bulk of said terminal board accessible for inspection and servicing.

14. A connector as defined in claim 12 characterized in that the main body thereof is located entirely along one side of the T-stem portion of said terminal board when assembled thereto.

15. A connector as defined in claim 12 characterized in that the same is selectively clampable to either lateral side of said terminal by inverting the same end-forend when shifting the same from one side to the other of said terminal board.

16. A connector as defined in claim 15 characterized in the provision of cable connector means mounted to said main body having two sets of terminals with the terminals of each set connected to a respective one of said contactors but with one set connected in the reverse sequence of the other set.

17. A gang connector quickly attachable to and detachable from an elongated terminal board of the type having a multiplicity of pairs of conductor terminal 5 strips in closely spaced apart array along at least one lateral side thereof.

said gang connector having a rigid main body substantially as long as said terminal board and rigidly supporting separate resilient contactors having one 10 end thereof positioned to make simultaneous contact with a respective one of said terminal strips along at least said one lateral side of said terminal board,

said main body at spaced apart areas therealong hav-15 ing manually operable clamping jaw means engageable with the juxtaposed exposed outer edge portion of the terminal board and operable as said jaw means are tightened after said connector is in its proper operating position to place said resilient 20 contactors under stress and cooperating with said stressed resilient contactors to hold said gang connector rigidly assembled to one lateral half of said terminal board with the terminal strips along one side thereof in firm electrical contact with a sepa- 25 rate one of said resilient contactors,

with said resilient contactors each comprising a similar flexible strip having portions thereof projecting from the opposite lateral sides of said main body, and with said connector selectively clampable to 30 either lateral half of said terminal board with the resilient contactors thereof engaged with an individual one of the terminal strips along that lateral half of the terminal board, and with said clamping means so arranged relative to said resilient contac- 35 ferent terminal board terminal strip. tors that said gang connector must be rotated endfor-end when shifting the same from one lateral half to the other of a given terminal board.

18. A gang connector as defined in claim 17 characterized in that said resilient contactors are in general 40 board to assure registry of said resilient contactors with alignment with one another in a single row extending lengthwise of said main body.

19. A gang connector as defined in claim 17 characterized in that said resilient contactors each comprise a long strip of resilient material having the outer ends 45 in the provision of a plurality of said locators at spaced thereof curled and disposed to have wiping contact with a respective terminal strip of said terminal board as said clamping means is tightened.

20. A gang connector as defined in claim 17 characterized in the provision thereon of disconnectable cable 50 connector means having a separate terminal thereof connected to a respective one of said contactors.

21. A gang connector as defined in claim 20 characterized in the provision of first and second cable connector means mounted on said gang connector each 55

having a separate terminal connected to a respective one of said contactors but in reverse sequence.

22. A gang connector having a long main body comprising a pair of long rigid strips cooperating to lock the midportion of a multiplicity of resilient conductive contactors captive therebetween in closely spaced apart relation and insulated from one another,

means enclosing one end only of said resilient contactors thereby leaving the other end exposed,

- manually adjustable means carried by said gang connector for detachably coupling the same rigidly to a terminal board supporting a multiplicity of terminal strips with the exposed end of each of said resilient contactors in pressure contact with a respective one of said terminal strips,
 - means supporting a separate cable connector terminal connected to the enclosed ends of each of said resilient contactors and fixedly mounted on said gang connector,
- said cable connector terminals including duplicate sets with the terminals of the two sets each connected to a respective one of said contactors but in reverse sequence, and
- means for blocking the connection of a cable connector to one of said sets of connector terminals depending on which end of said gang connector is uppermost.

23. A connector as defined in claim 22 characterized in the provision of toggle clamp means secured to said main body near either end thereof each including a jaw engageable with the edge of a terminal board and effective as said clamp means is closed to anchor said gang connector firmly assembled to a terminal board with each of said resilient contactors pressed against a dif-

24. A connector as defined in claim 23 characterized in that said main body includes at least one rigid locator projecting from one edge thereof and positioned to extend into a locator notch in the edge of a terminal a preselected one only of the terminal board terminal strips as the connector approaches an assembly position relative thereto.

25. A connector as defined in claim 24 characterized apart points along said one edge of said main body.

26. A connector as defined in claim 22 characterized in that the exposed outer end of said contactors is deformed and positioned to engage juxtaposed abutment means on the terminal strips of a terminal board as said clamp means is tightened and cooperating therewith to hold said gang connector firmly assembled to and against sidewise movement away from the terminal board until said clamp means is loosened. *

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