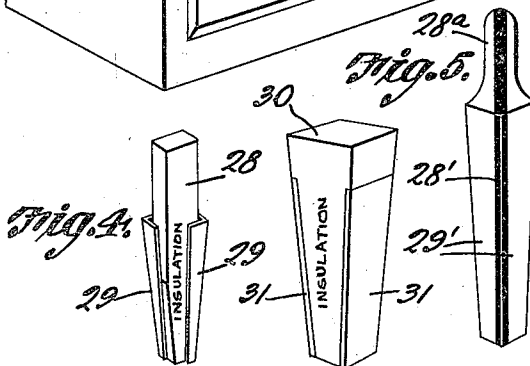
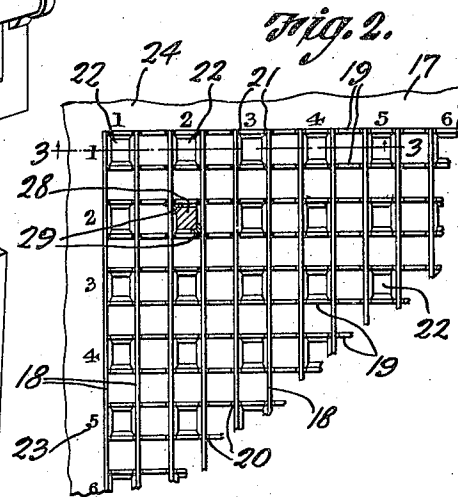
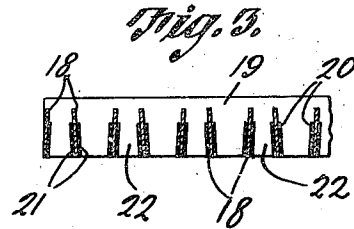
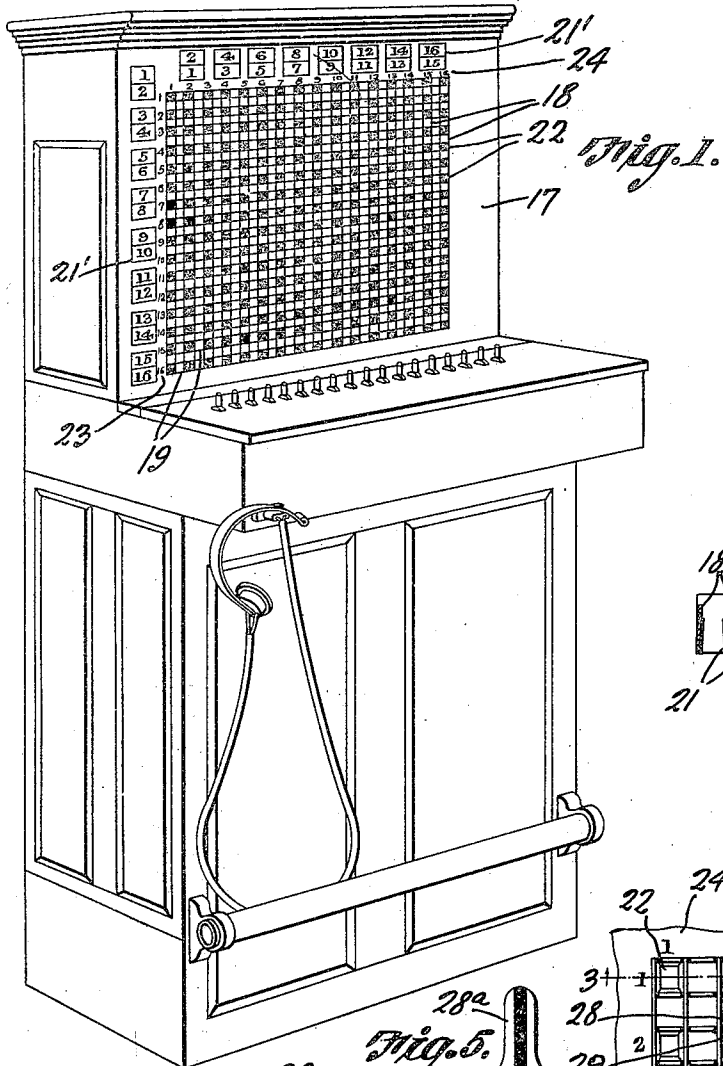


M. L. CURRIER.
CORDLESS TELEPHONE SWITCHBOARD.
APPLICATION FILED JULY 25, 1916.

1,243,922.

Patented Oct. 23, 1917.

2 SHEETS—SHEET 1.



Witnesses
J. R. Daniel
R. L. Parker

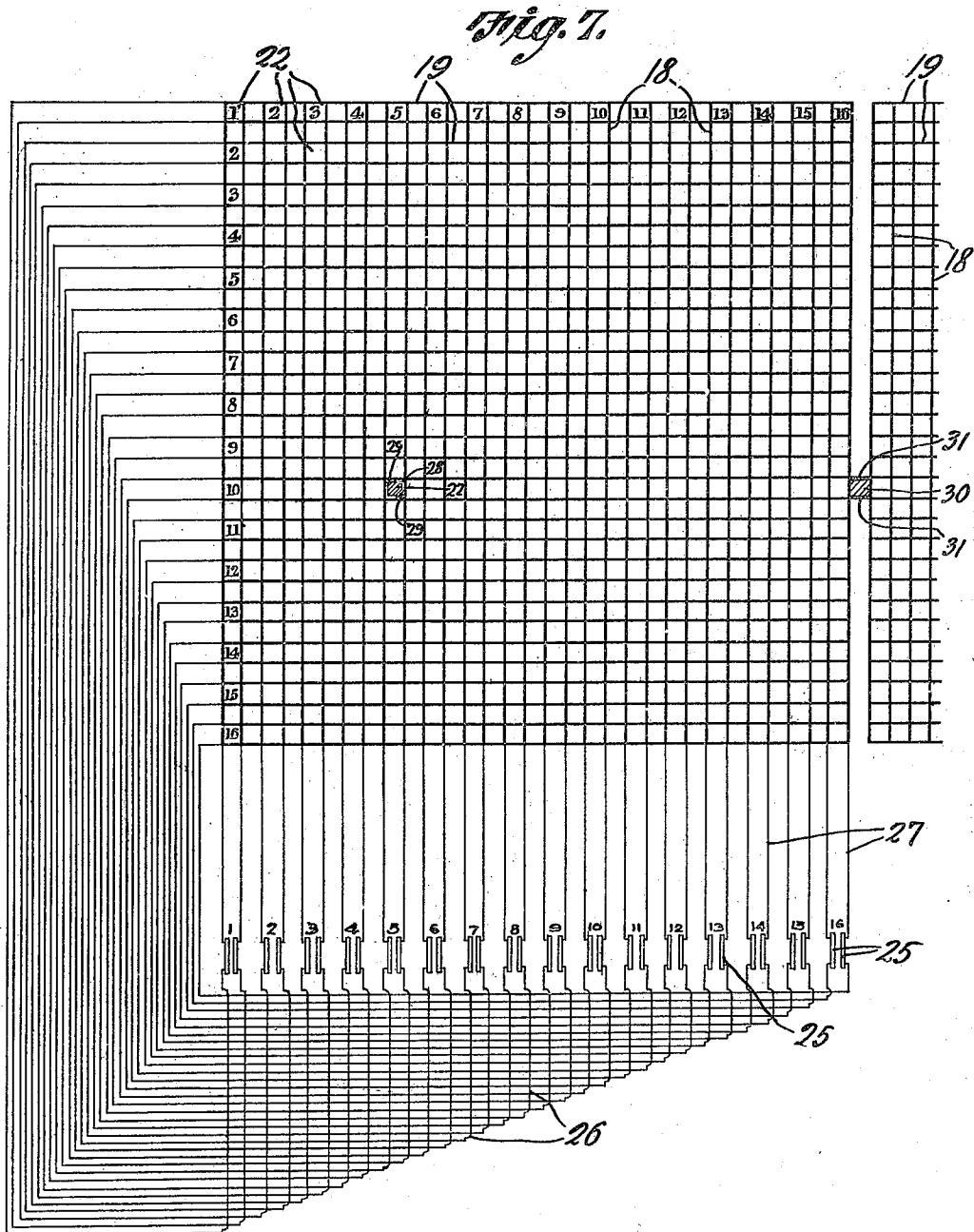
Fig. 6.

M. L. Currier Inventor
by *C. A. Snow & Co.*
Attorneys

M. L. CURRIER.
CORDLESS TELEPHONE SWITCHBOARD.
APPLICATION FILED JULY 25, 1916.

1,243,922.

Patented Oct. 23, 1917.
2 SHEETS—SHEET 2.



Witnesses

J. R. Dallen
R. L. Parker

M. L. Currier Inventor

by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

MARION L. CURRIER, OF COTTLEVILLE, MISSOURI.

CORDLESS TELEPHONE-SWITCHBOARD.

1,243,922.

Specification of Letters Patent.

Patented Oct. 23, 1917.

Application filed July 25, 1916. Serial No. 111,273.

To all whom it may concern:

Be it known that I, MARION L. CURRIER, a citizen of the United States, residing at Cottleville, in the county of St. Charles and State of Missouri, have invented a new and useful Cordless Telephone-Switchboard, of which the following is a specification.

The present invention appertains to telephone switch boards, and aims to provide a telephone switch board eliminating the use of cords for the jack plugs, thereby removing the objections incident to the use of such cords, and providing a switch board which is convenient and simple to operate and simple in construction.

Another object of the invention is the provision of a switch board of the nature indicated which can be connected in multiple with one or more similar switch boards by the use of one or more multiple plugs.

With the foregoing and other objects in view which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein disclosed can be made within the scope of what is claimed without departing from the spirit of the invention.

The invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a perspective view of the improved switch board.

Fig. 2 is a fragmental front view of the board.

Fig. 3 is a sectional view taken on the line 3—3 of Fig. 2.

Fig. 4 is a perspective view of one form of jack plug.

Fig. 5 is a perspective of another form of jack plug.

Fig. 6 is a perspective view of the multiple plug.

Fig. 7 is a diagrammatical view illustrating the wiring, and also showing the use of the multiple plug for connecting two adjacent switch boards.

A conventional switch board cabinet is illustrated in Fig. 1, the switch board proper being designated 17 and having embedded therein parallel vertical strips 18 and parallel horizontal strips 19, the two sets of strips being arranged in intersecting relation and being provided with slots 20 receiving the opposite strips, whereby the intersecting strips

are separated. The intersecting strips are insulated from one another, as at 21. The strips of each set are arranged in pairs and as illustrated the strips of each pair converge rearwardly, although this feature need not be used when tapered sockets are not wanted. The pairs of strips of each set are designated by suitable numerals or indices 23 and 24, and suitable annunciators 21 are provided for the pairs of horizontal and vertical strips. Where the pairs of vertical and horizontal strips cross, they provide tapered square jack sockets 22, the four walls of each socket being insulated from one another and being portions of one horizontal and one vertical pair of strips.

In Fig. 7, the numerals 25 designate the terminals of the main line wires, of the several branch stations or telephone sets, and each of the main line conductors or wires 25 is connected in back of the switch board by means of a pair of wires or conductors 26 with one pair of horizontal strips 19, and each pair of conductors 25 is also connected by means of a pair of wires or conductors 27 with one pair of vertical strips 18. Thus, the pairs of conductors 25 are arranged in series, the same as the vertical and horizontal strips of the switch board, and the successive pairs of conductors 25 are connected to the successive pairs of strips of both the vertical and horizontal strips. Thus, the conductors 25 designated 1 are connected to the vertical strips 18 designated 1, and to the horizontal strips 19 designated 1. The conductors 2 are similarly connected to both the horizontal and vertical strips designated 2, the conductors 3 to the horizontal strips designated 3, and so on. The wires 26 and 27 are preferably attached to the ends of the strips, although this is not compulsory.

One form of jack plug is shown in Fig. 4, and is designated 28, the same being composed of suitable insulating material, and has secured to the inner end thereof a pair of diagonally opposite V shaped bridging springs 29 which project toward the butt end of the plug and which are spaced slightly from the diagonally opposite corners of the plug 28. When the plug 28 is introduced in a socket 22, in any angular position (it being possible to insert the plug in four different angular positions), the bridging plates 29 will bridge the horizontal and vertical strips at diagonally opposite corners of the socket, as seen in Fig. 2.

In Fig 5 a different form of jack plug is illustrated, the same embodying the diagonally opposite bridging portions 29' which are of conductive material, the same as the bridging springs 29, and said portions 29' are separated from one another by the insulation 28'. The plug is tapered and is square cross section, to fit in the sockets 22 snugly, and the butt end of the plug has a handle or finger piece 28^a whereby it can be conveniently manipulated.

In use, supposing that the calling party is on the main line conductors 25 designated 10, and is calling for the party on main line conductors designated 5, the operator inserts the jack plug in the socket 22 at the intersection of the horizontal strips 19 designated 10, and the vertical strips 18 designated 5, thus immediately connecting the two pairs of main line conductors. Thus, one main line conductor designated 10 is connected to one main line conductor 5 by way of one wire 26, one strip 19, one bridging spring or portion 29, one vertical strip 18 and one wire 27, while the other main conductor designated 10 is connected to the other main conductor designated 5 by the other wire 29, strip 19, bridging portion 29, strip 18 and conductor 27 of the pair. The horizontal strips 19 are preferably used for the calling party, while the vertical strips 18 are preferably used for the called party, although the reverse arrangement can be employed if desired. It is therefore evident that any two pairs of main line wires or conductors can be readily connected by the simple introduction of one of the jack plugs in the proper socket. The use of jack plug cords is eliminated, thus saving time and trouble, and the switch board is nevertheless practical and efficient in use as well as extremely simple in construction.

The multiple plug 30 shown in Fig. 6 is of square tapered form, and is provided at opposite sides with bridging plates 31 insulated from one another.

The multiple plugs can be used for connecting adjacent switch boards as suggested in Fig. 7, it being noted that the plugs 30 when introduced between the adjacent switch boards is adapted to connect the alining pairs of horizontal strips 19 by means of the bridging plates 31, whereby said strips are connected between the two switch boards so as to connect them in multiple.

With the present construction, it will be noted that four of the switchboard strips or conductors (two vertical and two horizontal) are connected with two main lines. Thus, each pair of main lines is connected to one pair of the vertical strips or conductors of the switchboard, and said strips

can be connected with the ringing and listening keys (not shown). Said pair of main lines is also connected to the corresponding horizontal strips or conductors of the switchboard bearing the same number. The ends of the horizontal strips are arranged for connection in multiple with an adjacent switchboard as seen in Fig. 7.

Having thus described the invention, what is claimed as new is:

1. A telephone switch board having a set of strips arranged in pairs and extending in one direction, a second set of strips arranged in pairs and extending in another direction at an angle with the aforesaid strips, the strips of the two sets intersecting one another and providing jack sockets at the points of intersection, pairs of main line terminals, pairs of conductors connecting the pairs of main line terminals with the respective pairs of strips of one set, other pairs of conductors also connected to said pairs of main line terminals and connected to the respective pairs of strips of the other set, and a jack plug insertible in said sockets and having diagonally opposite bridging portions for connecting the intersecting pairs of strips, whereby to connect two pairs of main line terminals.

2. A telephone switch board having two sets of intersecting strips embedded therein, the strips of each set being arranged in pairs, the intersections of said pairs of strips providing jack sockets, the strips of each pair converging rearwardly, whereby said sockets at the intersections of the pairs of strips are tapered rearwardly, and a tapered jack plug insertible in said sockets having diagonally opposite bridging portions insulated from one another for bridging strips of two intersecting pairs.

3. A pair of telephone switch boards each having a set of horizontal strips arranged in pairs, a set of vertical strips arranged in pairs and intersecting the aforesaid strips to provide jack sockets at the intersections, said switch boards being disposed side by side with the horizontal pairs of strips in alinement, a multiple plug insertible between said switch boards for connecting the adjacent terminals of corresponding pairs of horizontal strips, and a jack plug insertible in said sockets and having diagonally opposite bridge portions for connecting the intersecting pairs of strips.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

MARION L. CURRIER.

Witnesses:

J. W. WILSON,
D. W. WILSON.