July 2, 1957 D. D. JONES 2,798,172

PORTABLE ELECTRICAL DISTRIBUTION SYSTEM

Filed Feb. 17, 1955

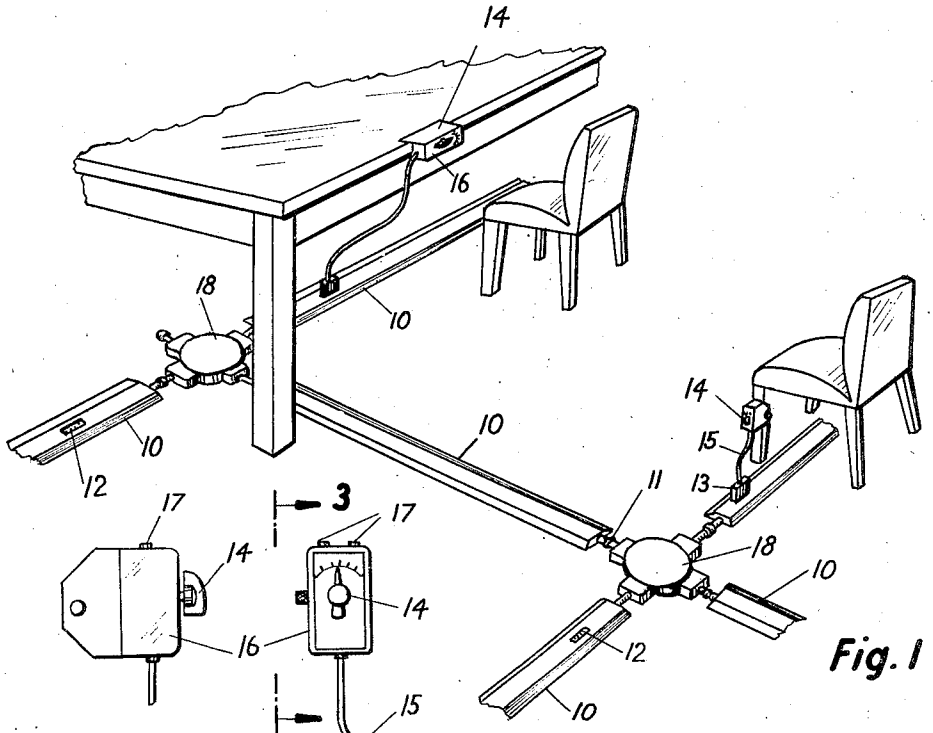


Fig. 1

Fig. 3

Fig. 2

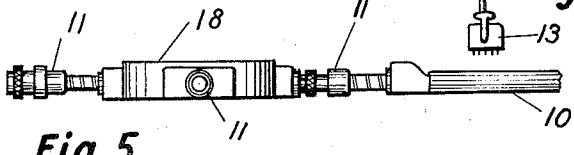


Fig. 5

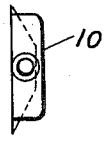


Fig. 6

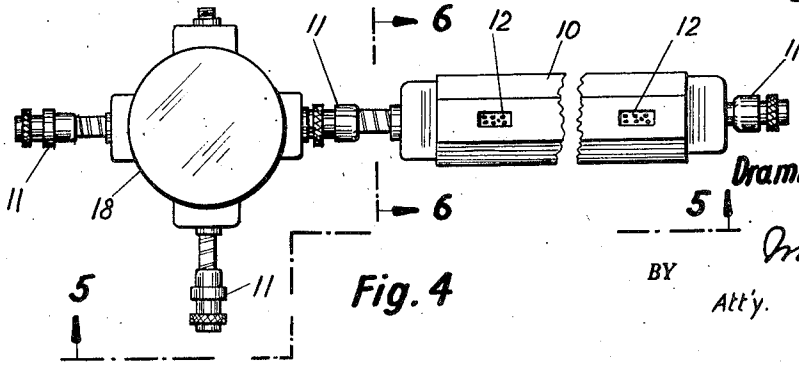


Fig. 4

Dramin Daniel Jones
INVENTOR.

BY

Atty.

United States Patent Office

2,798,172

Patented July 2, 1957

2,798,172

PORTABLE ELECTRICAL DISTRIBUTION SYSTEM

Dramin Daniel Jones, Great Neck, N. Y.

Application February 17, 1955, Serial No. 488,894

3 Claims. (Cl. 307—147)

This invention relates to improvements in portable electrical transmission systems and specifically it refers to a system for transmitting audio programs to tables and chairs in an auditorium by means of portable transmission strips which may be quickly connected to suit conditions.

When heretofore an auditorium was to be equipped for multi-lingual conferences, the room was usually wired up elaborately or equipped with "wireless" receivers at great cost. Cables were brought to the various places of the delegates and outlets and receivers were connected in the usual manner. This was extremely costly and also resulted in that the system was easily damaged by the public and parts were often surreptitiously removed. These difficulties have been eliminated in my present invention as will be hereinafter described.

The main object of my invention is to provide a portable distribution system which can be quickly installed and adapted to suit all necessary conditions.

Another object of my invention is to provide a distribution system which is of such construction that it is not easily destroyed by unauthorized tampering and which may be installed at low cost.

A further object of my invention is to provide a distribution system which is flexible in its arrangement so that it would fit large or small rooms and large or small numbers of delegates.

An ancillary object of my invention is to provide a distribution system made out of uniform standard parts which may be plugged in and connected together to form a distribution system and which may be manufactured at the low cost.

Other objects and advantages of my invention will be apparent during the course of the following description and claims.

In the accompanying drawing forming a part of this specification and in which like numerals designate like parts throughout the same,

Figure 1 represents an isometric view of a part of a typical distribution system embodying my invention,

Figure 2 represents a front elevation of an outlet box with selector switch,

Figure 3 represents an elevation taken along line 3—3 in Figure 2,

Figure 4 represents a plane view of a connection box with 4 outlets and with 1 transmission line plugged in,

Figure 5 represents an elevation taken along the line 5—5 in Figure 4, and

Figure 6 represents a section taken along line 6—6 in Figure 4.

In the drawing, wherein for the purpose of illustration is shown a preferred embodiment of my invention, the numeral 10 designates a short transmittion line assembly having a connection plug 11 at each end. The plugs 11 may be of the usual type used in transmission of radio programs and each strip may have one female connector at one end and a male connector flexibly attached at the other end. The strip 10 is furthermore wired with a number of pairs of wire corresponding to the number

of programs that is desired to transmit and at various points of strip 10 outlet receptacles 12 are provided into which one may plug the male connectors 13 connecting to the selector switches 14 through cable 15, see Figures 1 to 4. The selector switch 14 is usually a 6 position switch and is mounted in the box 16 which may have 2 or more outlets 17 into which earphones are connected. Similar outlet boxes may also be mounted on tables and chairs as indicated in Figure 1. The present system of wiring is what is known as the nodular system and consists of using a plurality of the strip type transmission line elements 10 which are connected together by means of connection boxes 18 which have 4 outlets into which the plugs 11 may be connected. It is thus possible to arrange the system to suit any prevailing conditions by using one or more of the transmission line strips 10 in series and by placing branch boxes 18 at the proper locations, one may run off as many branches as desired. This makes it possible to install the system in any room of any size with any number of outlets in a short time. It is only necessary to have a supply of the standard parts and then fit same together to suit the place. The plugs may be polarized so there is no mix-up between the various languages transmitted. In this way temporary conference rooms may be wired for sound in a very short time and at a very low cost. After the conference is over this system may be taken apart and reused in other places without any destruction of components.

The operation of my invention is as follows:

In installing this system in the conference room, it is only necessary to determine how many outlets are required and the approximate location of same. One may then start out from the point of best advantage relative to the incoming line and lay out a simple distribution system by plugging in the necessary number of transmission line sections 10 and branch boxes 18 as described supra. As illustrated in Figure 1 the transmission line strips 10 are preferably run under the chairs in the auditoriums and under the tables and the switch boxes 16 are placed in suitable positions and are fastened to the chairs or tables by suitable standard clamps. As soon as these components have been plugged together, the system is ready to operate. It is then only necessary to plug in the incoming line and to plug in head-phones in the outlets 17 of the switch boxes 16. The listener may then select any one of the languages transmitted by turning the switch 14.

It is to be understood that the form of my invention, herewith shown and described, is to be taken as a preferred example of the same and that various changes in the shape, size and arrangement of parts may be resorted to, without departing from the spirit of my invention or the scope of the subjoined claims.

Having thus described my invention I claim:

1. A portable distribution system of the character described comprising transmission line sections each having a plurality of insulated cables terminated in plugs at each end, said sections having the cables arranged in a single horizontal layer thereby making the cross section wide and low, said sections furthermore having a plurality of outlet receptacles along their top faces; junction boxes, each having a plurality of receptacles fitting said plugs at the end of said transmission line sections, whereby 2, 3, or 4 transmission line sections may be connected to one junction box, and switch boxes having earphone connectors, selector switch, cord and plug which may be plugged into said outlets along said sections.

2. A portable distribution system of the character described comprising transmission line sections terminated in plugs at each end, said sections having metallic covers of low, flat cross section and a plurality of cables ter-

minated in an articulated plug at each end, said sections furthermore having a plurality of outlet receptacles along their top faces; a plurality of multiple connection junction boxes plugged in between said sections; switch boxes connected by plugs and cords to said outlet receptacles; a multipoint selector switch mounted in said box; outlet connectors in said switch box, and clamping means whereby said box may be fastened to the edge of a table.

3. A portable distribution system of the character described comprising prewired transmission line sections having a plurality of electrical cables arranged in a flat low cross section and terminated in plugs at each end, said sections having metallic covers and a common, articulated plug at each end, said sections furthermore having outlet receptacles along their top faces prewired to said cables; a plurality of multiple connection junction boxes, each connection of which having receptacles matching the plugs at the end of said transmission line sections; switch boxes connected by plugs and cords to said outlet receptacles; a multipoint selector switch mounted in said box; head-phone connectors in said switch box, and clamping means whereby said box may be fastened to a leg of a chair.

References Cited in the file of this patent

UNITED STATES PATENTS

469,208	Greenfield	Feb. 16, 1892
2,107,416	Huth	Feb. 8, 1938
2,371,551	Schmitt	Mar. 13, 1945