

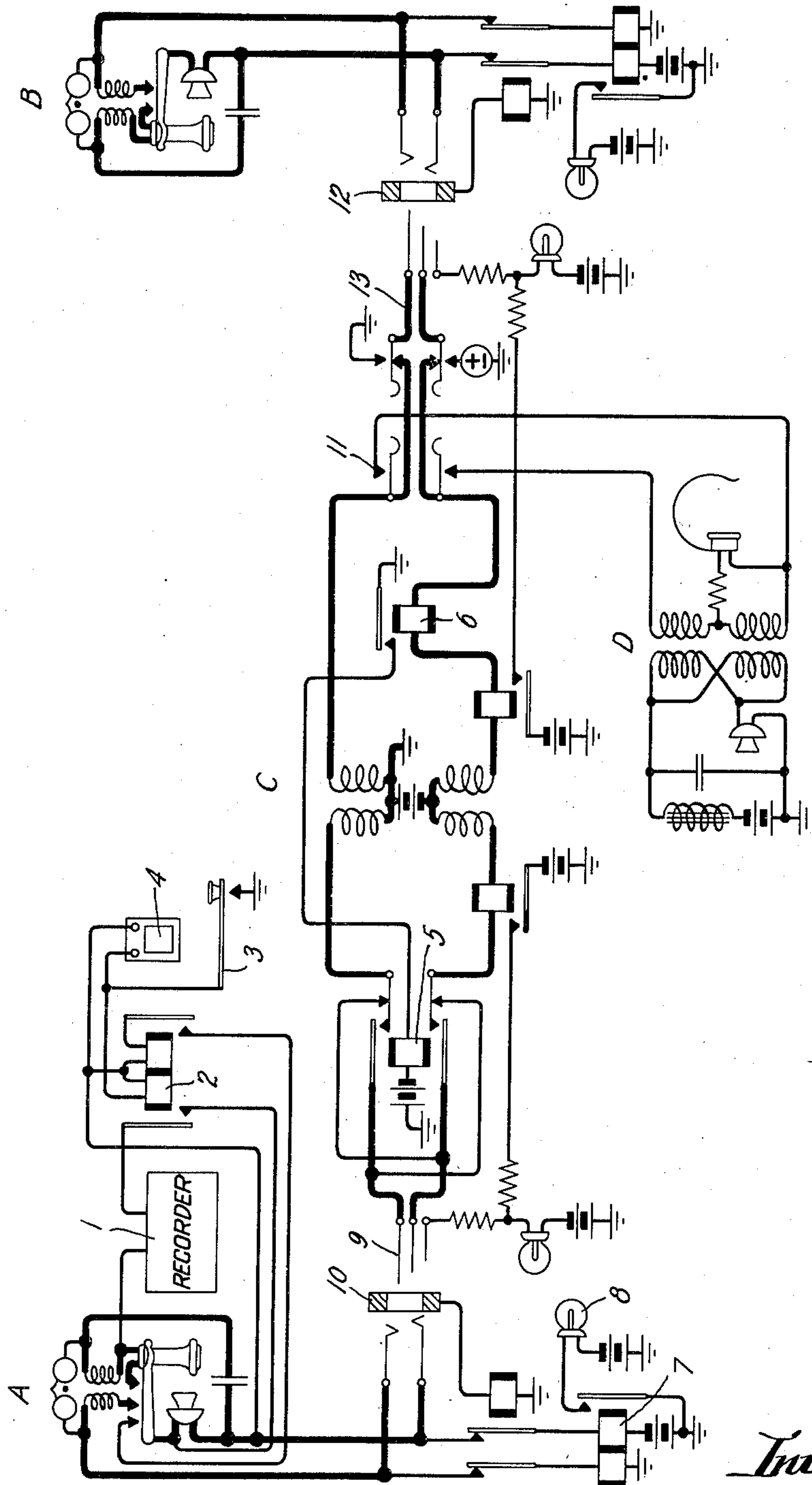
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MEANS FOR RECORDING TELEPHONE CONVERSATIONS

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MEANS FOR RECORDING TELEPHONE CONVERSATIONS

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This invention relates to telephone conversation recording means and has for its object the provision of recording means for telephone lines which is under the joint supervision of both parties to the conversation.

Features of the invention include means for signaling the telephone subscribers that recording apparatus is to be connected and the joint control by both parties of the connection of the recording apparatus to the lines.

To illustrate this invention its use is shown in the accompanying drawing as applied to a manually operated telephone system in which "A" and "B" are substations and "C" is a cord circuit for interconnection of the substations and having an operator's circuit "D" for connection thereto.

At the substation "A" recording apparatus is shown at 1 which may be phonographic apparatus or any other kind of recording apparatus which may be operated by speech currents to make a record of the telephone conversation. The recorder 1 is brought into connection with the substation lines through a locking relay 2 and a key 3 which upon being depressed brings into circuit connection with the lines a buzzer 4.

In the common type of cord circuit the grounded or positive side of the battery is connected to the "tip" and the negative or ungrounded side of the battery is connected to the "ring". In the cord circuit shown at "C" normally the reverse condition exists, that is, the positive grounded side of the battery is connected to the "ring" and the negative ungrounded side is connected to the "tip". A battery reversing relay 5, however, is provided in this circuit by which the grounded side of the battery may be connected to the "tip" and the ungrounded side may be connected to the "ring". This battery reversing relay 5 is brought into operation by the lifting of the receiver from the hook of the called substation.

When a subscriber wishes to make a call and have the telephone conversation recorded, he brings his telephone sub-station set into connection with the central office by the usual operation such as the lifting of his receiver from the hook. He then notifies the operator

of the call connection desired and proceeds to connect his substation set with the recording apparatus by pressing down the key 3. As the winding of the relay 2 and the buzzer 4 is connected to the "ring" side of the line and to ground through the key 3 and the "ring" side of the line is connected to ground, relay 2 does not operate, neither does buzzer 4. As soon, however, as the called party answers by taking his receiver from the hook, relay 6 is operated which causes operation of the battery reversing relay 5. Battery reversing relay 5 changes the ground connection from the "ring" side of the line to the "tip" and causes operation of locking relay 2 which connects the recording apparatus to the lines. Changing of the ground connection as stated also causes operation of the buzzer 4 which gives a signal over the line to the called party apprising him of the fact that recording apparatus is being employed to record the telephone conversation. If the called subscriber does not wish the telephone conversation to be recorded he may hang up his receiver and cause disconnection of his set from the line.

It will be assumed now that the subscriber at substation "A" desires to have conversation with a party at substation "B" and wishes to have the conversation recorded. The subscriber at substation "A" removes his receiver from the hook which causes operation of line relay 7 and the lighting of line lamp 8 at the central office in the well-known manner. The operator at the central office answers the call by inserting the answering plug 9 of the cord circuit "C" into the jack 10 of the line of the calling substation "A". The operator throws her listening key 11 to place her set in communicating connection with the line and upon being notified by the calling party of the substation it is desired to be connected with proceeds to plug into jack 12 of the called substation "B" with calling plug 13. In the meantime the calling subscriber at substation "A" presses and holds down key 3 ready to signal that the recording apparatus is going to be connected to the line.

The called subscriber at "B" in answering

the call removes his receiver from the hook and places substation "B" in talking and listening connection with the line. Upon removal of the receiver from the hook at substation "B" relay 6 is energized which causes operation of battery reversing relay 5 which changes the ground connection from the "ring" side of the line to the "tip". Reversal of ground from the ring side of the line to the "tip" allows locking relay 2 to operate and connect the recording apparatus to the line and also allows the buzzer 4 to operate to send a signal to the answering subscriber notifying him that the recording apparatus is being connected to the line to record the telephone conversation.

What is claimed is:

1. In a telephone system including substations and central office means for interconnecting the substations, current reversing means at the central office, phonographic apparatus normally disconnected from the line at a substation prior to the reception of a call to record telephone conversations, and connecting means at a substation operated by a reversal of current through the system and controlled jointly from a plurality of substations for connecting the phonographic apparatus to the telephone line.

2. In a telephone system including substations and central office means to interconnect the substations, current reversing means at the central office, phonographic apparatus at the substations, normally disconnected from the line at the time a call is made, to record telephone conversations, and connecting means at the substations to connect the phonographic apparatus to the telephone line, said connecting means being under the joint control of a calling and a called party and operable only upon a reversal of current being sent through the system.

3. In a telephone system having substations and central office means for interconnecting said substations, battery reversing means at the central office, electrical recording means at the substations, and means controlled from a distant substation through operation of said battery reversing means for connecting the recording means to the substation lines, and signaling means at the substations for indicating the connecting in of the electrical recording means.

4. In a telephone system including substations and central office means for interconnecting the substations, current reversing means at the central office, phonographic apparatus at the substations to electrically record telephone conversations, connecting means at a substation to electrically connect the phonographic apparatus to the telephone lines, and signaling means at a substation to indicate the connecting of the phonographic apparatus to the telephone lines, said connecting means and signaling means being un-

der the joint control of a calling and a called party and not operating when a call is initiated but operating to connect the phonographic apparatus and send a signal over the lines only when a reversal of current is sent through the system by one of the parties to the conversation.

5. In a telephone system having substations and central office means for interconnecting the substations, means at the central office for changing the direction of current flow in the system, phonographic apparatus at the substations for recording telephone conversations, and connecting means at the substations together with signaling apparatus operated by a change in the direction of current flow in the system for connecting the phonographic apparatus to the telephone system, and sending a signal over the line wires indicating that the phonographic apparatus is in connection therewith, said connecting and signaling apparatus together with said means for changing the direction of current flow being controlled jointly from the calling and called substations and operating only when a call is answered.

6. In a telephone system having substations and central office means for interconnecting the substations, electrically operated phonographic apparatus at the substations for recording telephone conversations, means at the central office for reversing the direction of current flow in the system when the phonographic apparatus is to be connected to the telephone lines, and manually operated connecting and signaling means at the substations energized by a reversal of current flow in the system for connecting the phonographic apparatus to the lines and for sending a signal over the lines indicating the use of the phonographic apparatus, said means for reversing the direction of current flow and said connecting and signaling means operating only when a call from one substation has been answered from the called substation.

In witness whereof, the said CHARLOTTE M. HOLLAND, administratrix, hereunto subscribes her name this 25th day of May, A. D. 1928.

CHARLOTTE M. HOLLAND,
Administratrix of the Estate of Newman H. Holland, Deceased.