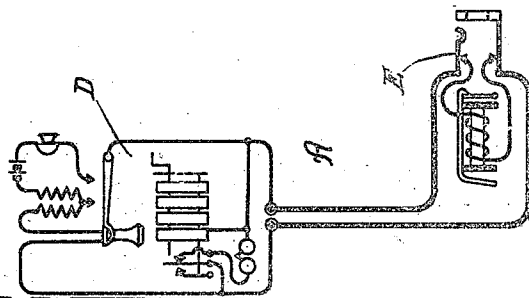
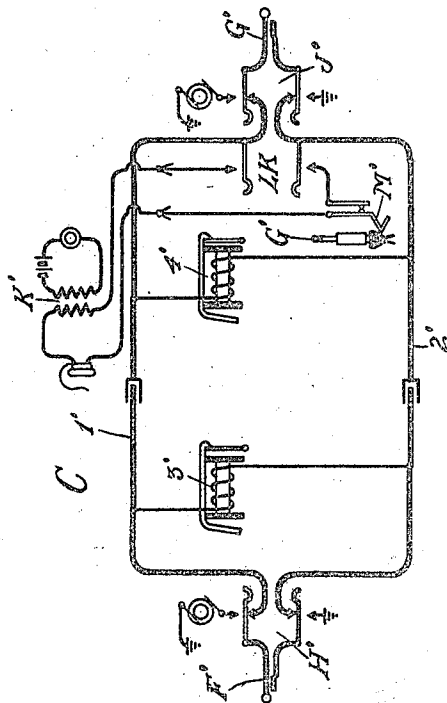
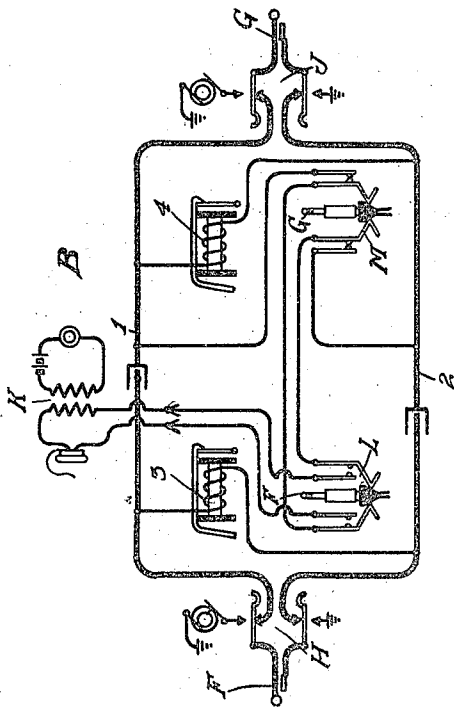
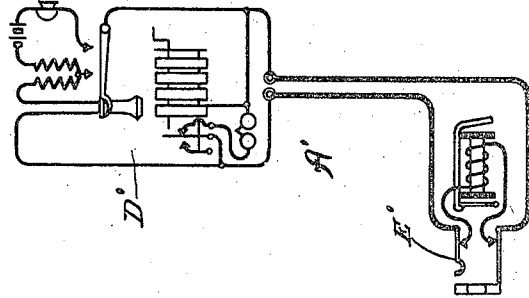


R. I. UTTER & H. P. SCHMIDT.
MAGNETO CORD CIRCUIT WITH SECRET SERVICE.
APPLICATION FILED JULY 26, 1913.

1,144,401.

Patented June 29, 1915.



Witnesses:

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UNITED STATES PATENT OFFICE.

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MAGNETO CORD-CIRCUIT WITH SECRET SERVICE.

1,144,401.

Specification of Letters Patent.

Patented June 29, 1915.

Application filed July 26, 1913. Serial No. 781,357.

To all whom it may concern:

Be it known that we, RICHARD I. UTTER and HERMAN P. SCHMIDT, citizens of the United States of America, residing in Chicago, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Magneto Cord-Circuits with Secret Service, of which the following is a specification.

Our invention relates in general to secret service operators' link or cord circuits for telephone systems and is directed more particularly to systems of this character in which the association of the operator's telephone with the connecting circuit is controlled by means of plug switches.

An object of our invention is to produce a system of the character described which is simple of construction, cheap to manufacture and easy to install.

In the accompanying drawing we have illustrated two operators' cord circuits B and C, the circuit B having its operator's telephone entirely controlled by plug switches while the operator's cord circuit C has its telephone circuit controlled by a manual key and a plug switch.

Referring now more particularly to the system illustrated, we have shown two magneto telephone lines A and A' having well-known forms of substations D and D' and line circuits E and E' respectively.

The cord circuit B is an ordinary double supervisory magneto cord circuit having an answering plug F and calling plug G, said plugs being connected by talking conductors 1 and 2. Supervisory drops 3 and 4 are bridged across the answering and calling ends respectively of the cord circuit and ringing keys J and H are also provided. An operator's telephone set K is also provided being connected in bridge of the cord circuit through normally open contacts of answering plug-switch L and normally closed contacts of a calling plug-switch M.

Operation of B.—Assuming now that the cord circuit B is to be used for interconnecting a pair of lines A and A', and assuming that substation D is calling, the generator thereat is operated to throw the associated drop in a well-known manner whereby the operator inserts an answering plug F into the jack of line A. As the plug F is moved from its seat, the answering

plug-switch L is operated to automatically connect the operator's telephone set K across the talking conductors of the cord. The operator now ascertains the number of the wanted subscriber and removes the associated calling plug G from its seat whereby the calling plug-switch M is operated to automatically disconnect the operator's circuit K. The plug G is now inserted into the jack of the line A' and the ringing key J operated to ring the call bell of substation D' in a well-known manner. The called subscriber now removes his receiver in response to the call and the two substations D and D' are connected in a conversational circuit, traced over the heavily marked talking conductors. It will be noted that as long as the plugs F and G are connected to the calling and called substations and said plugs are out of their seats, the operator's circuit K is disassociated from the cord circuit B, and she cannot listen in on an existing conversational circuit. Also by the use of the plug switches L and M, the connecting and disconnecting of the operator's circuit K is entirely automatic and accomplished without the use of electromagnetic relays or extra manual operations.

Cord circuit C.—The cord circuit C is similar to cord circuit B, the like parts being indicated by like reference characters with the addition of the suffix prime. In the embodiment of my invention as illustrated in the cord circuit C, the operator's circuit K' is normally disassociated from the corresponding cord circuit C through normally open contacts of a listening key LK. Thus, when the cord circuit C is used for interconnecting telephone lines, the removal of the answering plug F' from its seat does not affect the operator's circuit K' but the operator now throws the listening key LK to connect the circuit K' to the cord C and upon lifting the calling plug G' from its seat, the calling plug-switch M' interrupts its contacts so that the operator's telephone K' is automatically disconnected and whereby any subsequent operation of the listening key LK does not connect the telephone K' with the cord circuit. In this way the ordinary manual method of listening is provided but after a connection has been established, due to the operation of the calling plug-switch M', it is impossible

for the operator to listen in on an existing conversation.

In embodying our invention in a telephone system, we have chosen to use ordinary magneto operators' cord circuits simply for the purpose of illustration but we contemplate applying our invention in other ways than that shown and therefore we do not desire to be limited to the embodiment shown but aim to cover all that which comes within the spirit and scope of the appended claim.

What we claim as new and desire to secure by United States Letters Patent is:

15 A secret service telephone system comprising telephone lines, a plurality of cord circuits for interconnecting said lines including answering and calling plugs, an operator's telephone common to said cord cir-

uits, plug seat switches for the answering and calling plugs, connections extending from said operator's telephone to said plug seat switches whereby when any one of the answering plugs are removed from their seats the corresponding switch is operated to connect the operator's telephone to this cord, the calling plug switches of said cords being operated upon removal of the calling plug from the seat to again disconnect the operator's telephone from the cord.

Signed by us at Chicago, county of Cook and State of Illinois in the presence of two witnesses.

RICHARD I. UTTER.
HERMAN P. SCHMIDT.

Witnesses:

G. E. MUELLER,
B. O'BRIEN.