M. K. McGRATH.

TELEPHONE APPARATUS.

APPLICATION FILED JUNE 30, 1915.

1,211,607. Patented Jan. 9, 1917.

Fig. 1.

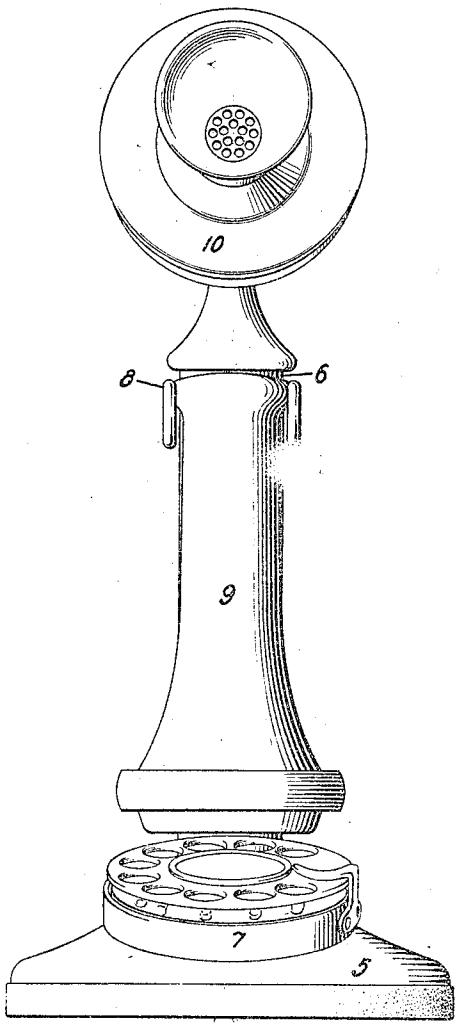
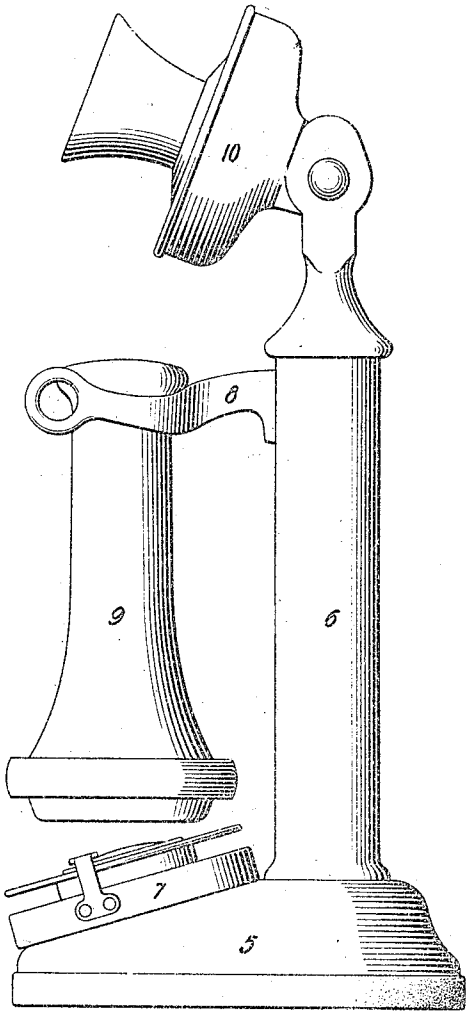


Fig. 2.



Witnesses:
O. D. M. Luther.
John Waldheim.

Inventor:
Maurice K. McGrath.
by A. C. Fraser, Atty

UNITED STATES PATENT OFFICE.

MAURICE K. McGRATH, OF NEW YORK, N. Y., ASSIGNOR, BY MESNE ASSIGNMENTS, TO WESTERN ELECTRIC COMPANY, INCORPORATED, A CORPORATION OF NEW YORK.

TELEPHONE APPARATUS.

1,211,607. Specification of Letters Patent. Patented Jan. 9, 1917.

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To all whom it may concern:

Be it known that I, MAURICE K. McGRATH, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Telephone Apparatus, of which the following is a full, clear, concise, and exact description.

This invention relates to telephone apparatus, and particularly to telephone sets intended for use in connection with automatic telephone systems.

In many automatic telephone systems it is necessary, in initiating a call at a subscriber's station, to remove the telephone receiver from the switch-hook before manipulating the signal transmitter which causes the setting up of the desired connection. In some systems it is even essential that a certain time interval elapse between the removal of the receiver and the initial operation of the signal transmitter, in order to allow certain connecting apparatus, such as line switches or line finders, to perform their function. In such systems, if the receiver is not removed until after partial or complete operation of the signal transmitter, the signals transmitted are either mutilated or are not transmitted at all; or if the operating of the signal transmitter follows too closely after the removal of the receiver from the switch-hook, proper operation of the connecting apparatus does not take place before the transmission of signals commences. With such systems, attempts have been made to insure the proper sequence of operations in the removal of the receiver and the operation of the signal transmitter, and to obtain the proper time interval between these operations, either by interlocking the receiver hook and the signal transmitter or by providing printed instructions adjacent the instrument, informing the user that he should remove the receiver from the switch-hook before actuating the signal transmitter.

The present invention, of which one embodiment is hereinafter described, obviates the need for either interlocking or for providing instructions to the user as to the order in which the receiver should be removed and the signal transmitter should be operated; and in practical operation effectively prevents incorrect use of the instrument owing to failure to perform these acts in the proper order. It also insures, in a satisfactory manner, the elapse of a sufficient time interval between the removal of the receiver from the switch-hook and the operation of the signal transmitter.

In general, the invention consists in supporting the telephone receiver in such a position adjacent the signal transmitter that use of the latter is interfered with until the receiver is removed from its support.

For the present purposes, the invention is shown as embodied in a telephone desk set, but it is to be understood that it may be embodied in wall sets or any other forms of substation telephone apparatus.

In the drawing, Figure 1 is a front elevation of a telephone desk set having the invention embodied therein; and Fig. 2 is a side elevation thereof.

Referring to the drawing, the main support of the instrument is shown as having a base member 5 and a standard member 6. Mounted on said base member 5 in any suitable manner is a signal transmitter 7 which is shown as being of the so-called dial type. It is to be understood, however, that the invention is not limited to use with any particular form of signal transmitter.

Mounted in the standard member 6 and extending over the signal transmitter 7 is a switch-hook 8, which may be of any well-known form and which is so arranged and located as to hold the receiver 9 in the position shown above the signal transmitter 7. When the receiver 9 is on the switch-hook 8, its enlarged lower end is close to the signal transmitter and interferes with access to and use of the latter. The telephone transmitter, indicated at 10, is mounted in the usual manner in the top of the standard member 6; and preferably is arranged to extend outwardly over the switch-hook 8, as shown.

It is evident that with a telephone instrument such as the embodiment of my invention just described, the user will naturally first remove the receiver from the switch-hook and will then actuate his signal transmitter, owing to the fact that the performance of these two actions simultaneously or in a reverse sequence is interfered with by the location of the receiver close to the top

of the signal transmitter. It is evident also that, in the natural operation of the instrument, a satisfactory time interval will elapse between the removal of the receiver and the operation of the signal transmitter.

What is claimed is:

1. In a telephone set, the combination of a signal transmitter, a telephone receiver, and means for removably supporting said receiver in position to interfere with access to and use of said signal transmitter.

2. In a telephone set, the combination of a support, a signal transmitter mounted thereon, a telephone receiver, and a switch-hook mounted on said support and arranged to hold said receiver in position to interfere with access to and use of said signal transmitter.

3. In a telephone desk set, the combination of a support having base and standard members, a signal transmitter mounted on said base member, a telephone receiver, and a switch-hook mounted in said standard member and extending over said signal transmitter arranged to hold said receiver above said signal transmitter and in a position to interfere with use of the latter until said receiver is removed from said switch-hook.

In witness whereof, I hereunto subscribe my name this 29th day of June, A. D., 1915.

MAURICE K. McGRATH.