

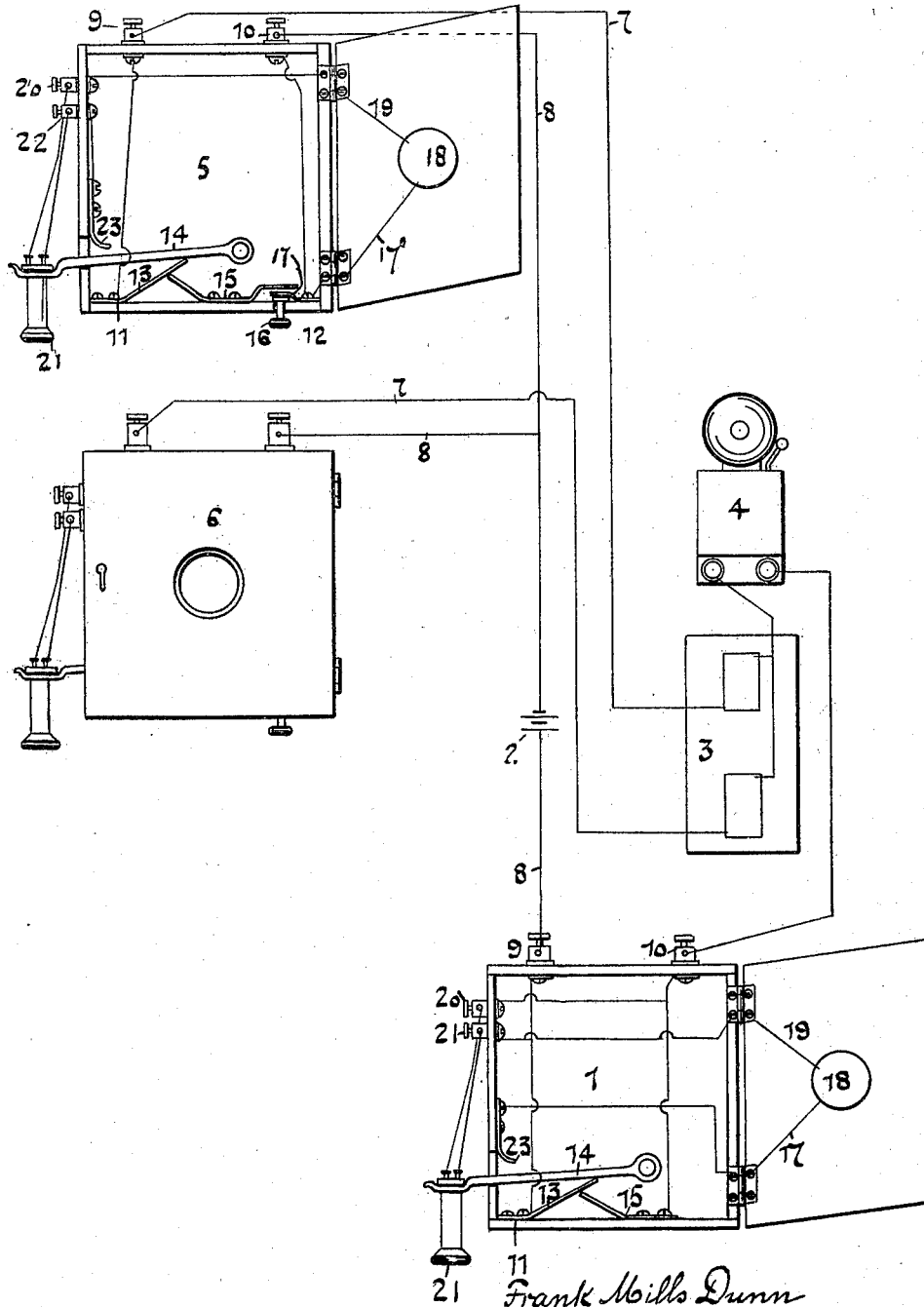
No. 646,963.

Patented Apr. 10, 1900.

F. M. DUNN.
HOUSE TELEPHONE SYSTEM.

(Application filed Dec. 17, 1898.)

(No Model.)



WITNESSES:

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HOUSE TELEPHONE SYSTEM.

SPECIFICATION forming part of Letters Patent No. 646,963, dated April 10, 1900.

Application filed December 17, 1898. Serial No. 699,533. (No model.)

To all whom it may concern:

Be it known that I, FRANK MILLS DUNN, a citizen of the United States of America, and a resident of Baltimore, in the State of Maryland, have invented certain new and useful Improvements in House Telephone Systems, of which the following is a specification.

My invention relates to a telephone system intended for use in dwellings, stores, or factories, where lines are short and where a battery has to be used for the call-bell system; and my object is to utilize the existing wires, annunciator, and bell and push-buttons which are ordinarily used in dwellings to establish a telephonic communication between distant points in a house, without the use of an additional battery or induction-coil transmitter.

The accompanying drawing illustrates in diagram the invention as applied to a house telephone system, showing in electrical circuits the telephonic and annunciator connections and including a bell and annunciator and telephone for the kitchen and telephones for different apartments in electrical circuit therewith.

1 is a telephone-box employing a granular-carbon transmitter in series with the receiver; 2, the general battery for the house; 3, the annunciator, with devices adapted to indicate the room from which a call comes.

4 is the ordinary bell.

5 is a telephone instrument similar to 1, except that it is provided with a push-button for calling on one floor of the house, and 6 a similar instrument on another floor. Each of these instruments is connected to the annunciator and through it to the bell and the kitchen-telephone.

Referring to instrument 5, 7 and 8 are the bell-wires, connected to the posts 9 and 10, and they with posts 11 and 12. To the post 11 is connected a spring 13, the end of which stands in the path of the telephone hook-lever 14. 15 is a double-ending spring, one end of which stands under spring 13, so as to be touched by it when receiver is on hook 14, the other end standing over a spring 17, connected to post 12, and over push-button 16 in position to make contact with 15 when push-button is pressed in. It will be seen that when the receiver is on its hook the telephone-circuit

will be open and the signal-circuit through 7, 9, 11, 13, 15, 12, 10, and 8 will be normally open and may be closed by means of the push-button 16, which operates as an ordinary push-button to signal the kitchen. Connected to post 12 is a wire 17, leading to transmitter 18. 19 is a wire leading through hinge of box to post 20. 21 is a receiver, and 22 its other post. 23 is a spring connected to post 22 and located in position to contact with lever 14 when receiver is removed. The circuit will then be 7, 9, 11, 13, 14, 23, 22, 21, 20, 19, 18, 17, 12, 10, and 8.

The kitchen instrument will be identical to that just described, except that as a general rule a push-button for calling will not be needed. If it is, the instrument will be identical. The instrument shown in the drawing does not contain a push-button, so that the connections are slightly different. The transmitter is connected on one side to spring 23, while the receiver on one side is connected direct to line, and the line-wire is connected directly to spring 15.

All of the instruments except that at office or kitchen are identical.

What I claim, and desire to secure by Letters Patent, is—

1. In a house telephone system, an annunciator system comprising a bell, an annunciator, and a battery, and electrically connected and in combination therewith, a number of telephones, each telephone having a simple contact transmitter and receiver in series with one another, each telephone except the kitchen-telephone, having a lever-hook for supporting a receiver and a contact with which the receiver engages to close the telephone-circuit, a double-ended spring and a push-button and contact-spring, one end of said double-ended spring engaging a spring engaging the hook-lever when the receiver is supported thereby, and the other end of said double-ended lever being adjacent to the spring adjacent to the push-button, the telephone-circuit being normally open and the signal-circuit being normally open, and the telephone-circuit being closed by the removal of the receiver by the action of the springs aforesaid acting on the hook-lever, and the signal-circuit being closed by the push-button engaging its spring with the other

end of the double-ended spring to operate the bell and annunciator.

2. A house telephone system constructed and arranged as follows, an annunciator system comprising a bell, an annunciator, and a battery, and a telephone having a hook-lever supporting a receiver, a contact-point in the telephone-circuit, a spring in contact with the hook-lever and acting upon the release of the receiver to throw the lever into contact to close the telephone-circuit, and a number of telephones in electrical circuit with parts already enumerated, each of said telephones consisting of a simple contact transmitter and receiver, a receiver-supporting hook-lever, a contact in the telephone-circuit with which the hook-lever engages upon removal

of the receiver, a spring connected with the lever to move it into engagement with said contact, springs in the signal-circuit, and a push-button operating thereupon to close the signal-circuit, the telephone-circuit and the signal-circuit being normally open and each closed respectively by the removal of the receiver and contact of its hook-lever, and by the contacting springs operated by the push-button to thereby ring the bell in operating the annunciator.

Signed by me at Baltimore city and State of Maryland this 12th day of December, 1898.
FRANK MILLS DUNN.

Witnesses:

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