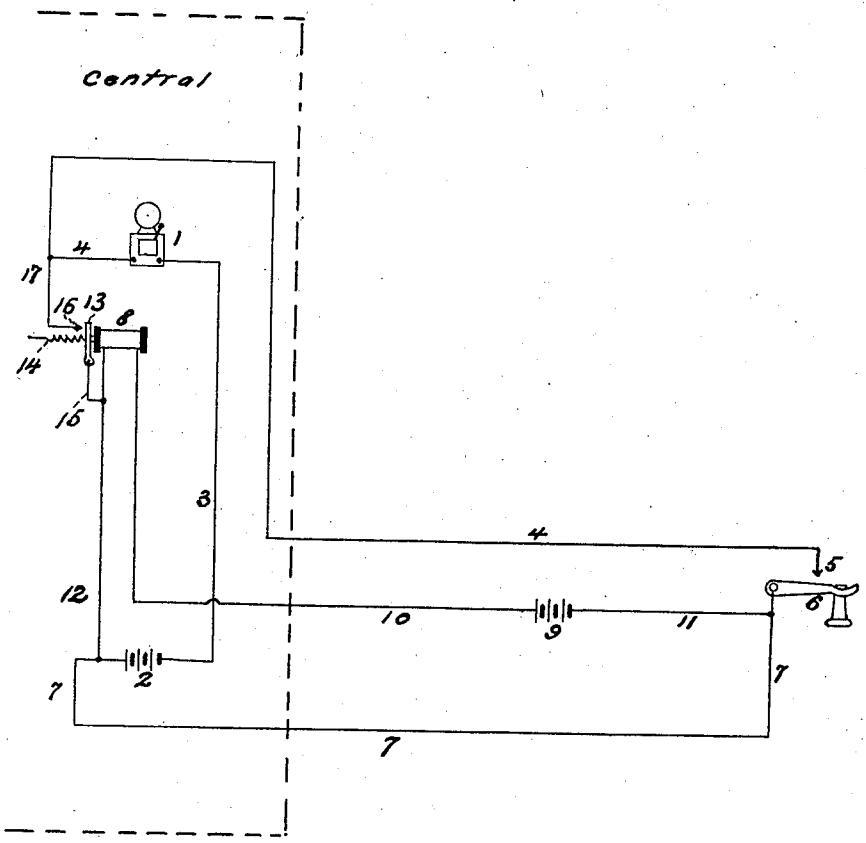
M. YAROW.

ELECIRIC ALARM SYSTEM.

APPLICATION FILED OCT. 10, 1918.

1,335,707. **Patented Mar. 30, 1920.**



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ELECTRIC ALARM SYSTEM.

1,335,707. Specification of Letters Patent. Patented Mar. 30, 1920.

Application filed October 10, 1918. Serial No. 257,596.

To all whom it may concern:

Be it known that I, MAX YAROW, a citizen of the United States, residing at Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented new and useful Improvements in Electric Alarm Systems, of which the following is a specification.

The alarm system which is the subject matter of the present application for patent is designed for use in connection with telephone circuits, and the object of the invention is to provide a means whereby an alarm is given at the "central" station if the wires of the circuit should be severed from any cause whatsoever. The invention is applicable to dwellings so that if a burglar should sever the wires to frustrate a phone call for police assistance, an alarm will be sounded at "central." The invention is also applicable to field phones to sound an alarm at the central station if the communicating wires should be cut by the foe or by an exploding shell.

In order that the invention may be better understood, reference is had to the accompanying drawing in which a diagrammatic representation of the invention is shown.

Referring specifically to the drawing 1 denotes an electric bell or other suitable electro-responsive signal device located at the central station and designed to notify "central" that a subscriber or a distant station desires connection. The magnet which operates the bell obtains current from a battery or other suitable source 2. One side of this battery is connected by a conductor 3 to the bell magnet and from the latter a conductor 4 leads to a contact 5 at the distant station or subscriber's house. This contact is engaged by the receiver hook 6 when the receiver is removed, and as the latter is connected by a conductor 7 to the other side of the battery 2, it will be seen that the bell 1 is sounded when the receiver is lifted off the hook. The parts thus far described constitute the ordinary calling circuit of a telephone system and a further description thereof is not deemed necessary. The other parts of the system have not been illustrated as they are well known and form no part of the present invention. The calling circuit is normally open.

At "central" is located a relay 8 which is energized by a battery or other current source 9 located at the distant station. One side of this battery is connected by a conductor 10 to the relay, and the other side of the battery is connected by a conductor 11 to the conductor 7. A branch conductor 12 from the conductor 7 also leads to the relay. The circuit of the relay is therefore as follows: battery 9, conductor 10, relay 8, conductor 12, conductor 7 and conductor 11 back to battery. The relay circuit is normally closed, and hence the armature 13 is held attracted against the tension of a spring 14. From the conductor 12, a conductor 15 makes connection with the armature 13, and back of the latter is a contact 16 which is connected by a conductor 17 to the conductor 4. The armature 13 is off the contact 16 when the relay 8 is energized, and when the relay circuit is broken, the spring 14 draws the armature 13 over against the contact 16, whereupon a local circuit is established and the bell 1 is sounded. This circuit may be traced as follows: one side of battery 2 by conductor 3 to bell 1, conductor 4, conductor 17, contact 16, armature 13, conductor 15, conductor 12 and by conductor 7 to other side of battery 2. It will be evident from the foregoing that if the conductors 10 or 7 should be severed from any cause, the relay circuit will be broken, whereupon the local circuit through the bell 1 is established and the latter is sounded, and the continued ringing of the bell would indicate to "central" that the line to the subscriber's or the distant station was cut.

I claim:

The combination with the calling circuit of a telephone line, including an electro-responsive signal device at "central," and a current source interposed in said circuit; of a relay, branch conductors connected to the calling circuit on one side of its current source and connected to the relay magnet, a current source interposed in one of the branch conductors to energize the relay magnet, a connection from the other branch conductor to the armature of the relay magnet, a contact opposite said armature, and a conductor leading from said contact to the signal device.

In testimony whereof I affix my signature.

MAX YAROW.