

(No Model.)

E. H. AMET.

FIRE ALARM AND TELEPHONE APPARATUS.

No. 470,231.

Patented Mar. 8, 1892.

Fig. 1

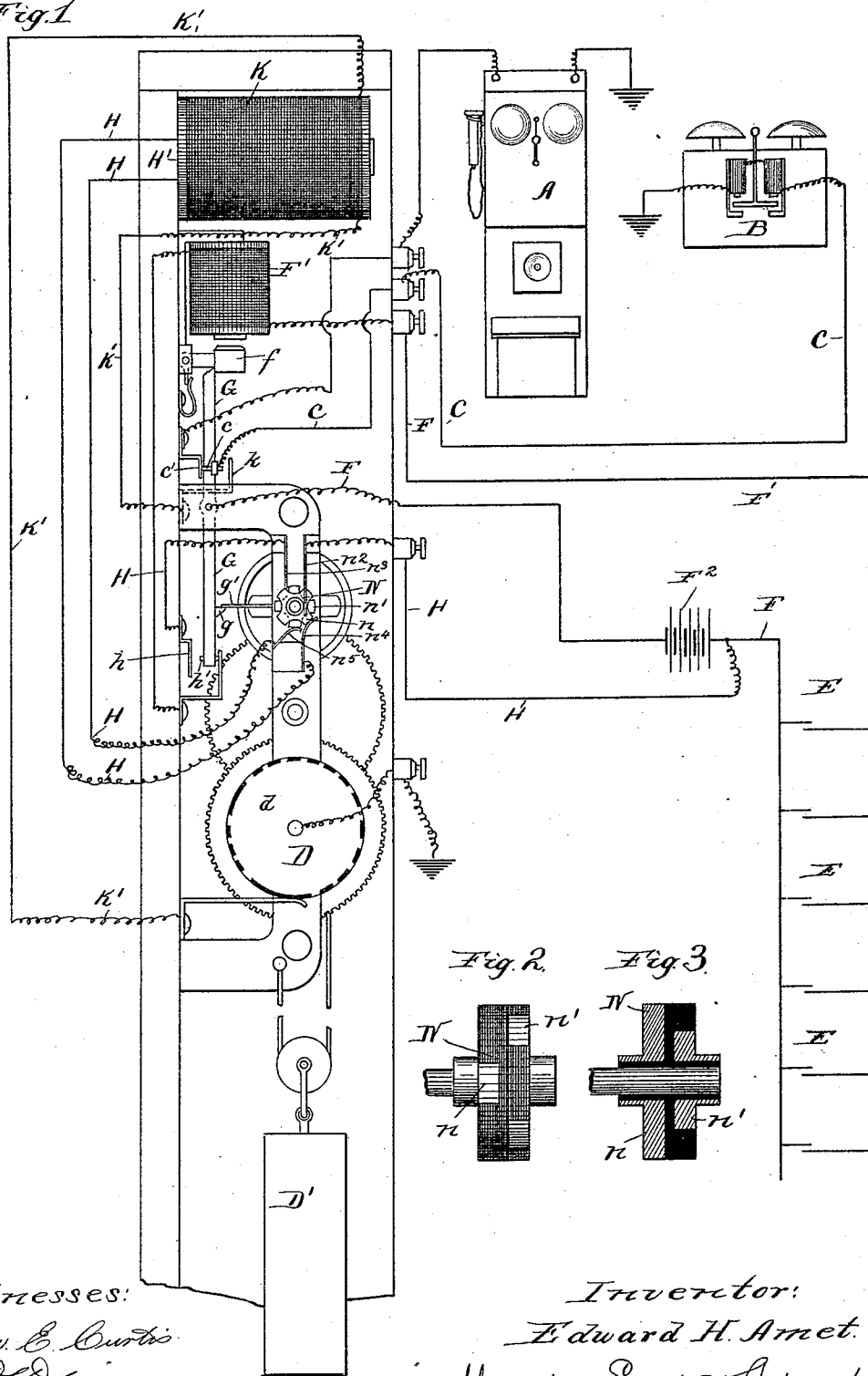


Fig. 2

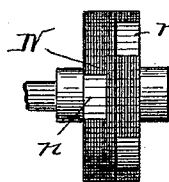
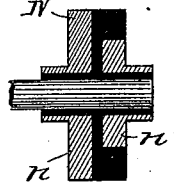


Fig. 3



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UNITED STATES PATENT OFFICE.

EDWARD H. AMET, OF CHICAGO, ILLINOIS, ASSIGNOR TO HIMSELF AND
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FIRE-ALARM AND TELEPHONE APPARATUS.

SPECIFICATION forming part of Letters Patent No. 470,231, dated March 8, 1892.

Application filed July 26, 1890. Serial No. 360,024. (No model.)

To all whom it may concern:

Be it known that I, EDWARD H. AMET, a citizen of the United States, residing in Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Fire-Alarm and Telephone Apparatus, of which the following is a specification.

My invention relates to improvements in automatic fire-alarm and telephone systems.

The object of my invention is to provide an automatic fire-alarm apparatus which may be used in connection with the ordinary telephone system or circuits now commonly in use without interfering in any way with the ordinary use of the telephone and which will serve to send an automatic fire-alarm signal to the central telephone-office in case of fire in any building supplied with a telephone and without any extra expense for line or circuit wires.

My invention consists in the combination, with a telephone and telephone-circuit of the usual or ordinary construction, of an automatic fire-alarm-signaling device, a thermostat and thermostat-circuit, including a magnet, an induction-coil circuit having a secondary circuit adapted to be included in the telephone-circuit, the magnet in the thermostat-circuit operating to cut out the telephone and throw the secondary circuit into connection with the telephone-line, so that the signaling device may in case of fire serve to automatically send a signal to the central office.

The invention further consists in the novel devices and novel combinations of parts and devices herein shown and described, and more particularly pointed out in the claims.

In the accompanying drawings, which form a part of this specification, and in which similar letters of reference indicate like parts, Figure 1 is a diagram view of a device embodying my invention. Fig. 2 is an elevation of the pole-changer in the primary circuit, and Fig. 3 is a section of the same.

In the accompanying drawings, A represents an ordinary telephone apparatus, B the bell or signaling device at the central office, and C the telephone line or circuit.

E E represent thermostats in the building where the telephone is located and F the thermostat-circuit, in which is included a magnet

F' and a battery F². The magnet F' in the thermostat-circuit F has a movable armature f, which releases the lever G, carrying the movable contact c, by which the telephone-circuit C is held normally closed at c'.

D is an automatic signaling device having a signal-wheel d, adapted to communicate the telephone-number, the location of the building, or other suitable signal. The signal-wheel d is preferably operated by a weight D' and clock-work mechanism, which is released by the movement of the lever G upon the closing of the thermostat-circuit F. To effect this the lever G is furnished with a pawl or projection g, which engages an arm g' on the shaft of the signaling device D.

H represents the primary circuit of the induction-coil K. The primary circuit H is connected with the thermostat-circuit F and battery F² by the movement of the lever G, which makes connection at h h'. Included in the circuit H is a pole-changer N, having the insulated segmental disks n n' and brushes n² n³ n⁴ n⁵, so that the current through the primary coil H' and circuit H will be an alternating one.

The induction-coil K is included in a circuit K', in which is included the signal-wheel d of the signaling device, and which is connected by the lever G and contact-piece k with the telephone-circuit C.

The operation is as follows: Normally the telephone-circuit C is closed at c c' and the thermostat-circuit F is open or broken at E E and the primary circuit H opened at h h', so that the fire-alarm-signaling part of the apparatus has no electrical connection normally with the telephone or telephone-circuit. The telephone may thus be used for ordinary purposes, the same as though no fire-alarm apparatus were combined with it. In case of fire in the building the thermostat-circuit will be closed at E by the heat caused by the fire, thus energizing the magnet F', included in the thermostat-circuit, and lifting the armature f, and thus releasing the pivoted lever G and thereby closing the primary circuit H of the signaling apparatus at h h' and the secondary circuit at k, and at the same time releasing the clock-work mechanism of the signaling device at g g'. The signal-wheel d

and pole-changer N will thus begin to revolve and transmit over the secondary circuit K', which is now connected with the telephone-circuit C, the appropriate signal to the receiving-instrument B at the central station.

I claim—

1. The combined telephone and fire-alarm signaling apparatus comprising a telephone and telephone-circuit, an automatic fire-alarm signaling device, a thermostat and its circuit, including a magnet, and an induction-coil circuit having a secondary circuit adapted to be included in the telephone-circuit, the magnet in the thermostat-circuit operating to cut out the telephone and throw the secondary circuit into connection with the telephone-line, so that the signaling device may send a signal to the signal-receiving instrument at the central office in case of fire, substantially as specified.

2. The combination, with the telephone and telephone-circuit and a signal-receiving instrument at the central office, of a thermostat and thermostat-circuit, including a magnet, an induction-coil or primary circuit adapted to be included in the thermostat-circuit, and

a secondary circuit adapted to be included in the telephone-circuit, the magnet in the thermostat-circuit operating to cut out the telephone and throw the secondary circuit into connection with the telephone-line and to include said primary or induction-coil circuit in the thermostat-circuit, substantially as set forth.

3. The combination, with the telephone and telephone-circuit and a signal-receiving instrument at the central office, of a thermostat and thermostat-circuit, including a magnet, an induction-coil or primary circuit adapted to be included in the thermostat-circuit, a secondary circuit adapted to be included in the telephone-circuit, the magnet in the thermostat-circuit operating to cut out the telephone and throw the secondary circuit into connection with the telephone-line and to include said primary or induction-coil circuit in the thermostat-circuit, and a pole-changer in said primary circuit, substantially as specified.

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Witnesses:

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