

trically connected with the core forming a part of said electro-magnet, whereas the opposite end of the wire is connected with a lead of the lamp circuit.

5 It is presumed that in rural districts and sparsely settled sections, or widely separated stations equipped with electric light plants, each place or station so provided with an electric light system also has an antenna circuit and appliances as herein set forth so
10 that Hertzian or electro-motive waves sent out from a given station will produce surges or electrical impulses in the several antenna circuits, with the result that the lamps are
15 lighted. When the coherer of the antenna circuit is affected, an impulse is produced in the relay 3 sufficient to energize the same and close the circuit through the tapper and through the electro-magnet 16. When the
20 electro-magnet 16 is energized, it attracts the armature 22 and closes the lamp circuit provided the switch 23 has been previously closed. The current of the lamp circuit passing through the electro-magnet 21 keeps
25 the same vitalized and attracts the armature 22 and holds the circuit closed until interrupted by the switch 23.

It is to be understood that the several parts are situated or so placed as not to be
30 tampered with, hence when the switches of the several lamp circuits are closed, the lamps are lighted at a given time by the sending out of Hertzian waves in the manner well understood, said waves producing
35 electrical impulses or surges in the antenna circuits, with the results hereinbefore set forth.

Having thus described the invention, what is claimed as new is:

40 1. In combination, a lighting circuit, lamps therein, and an electrical circuit closer for the lighting circuit included therein, an electro-magnet in said lighting circuit co-

operating with said circuit closer to hold
the same closed while current is passing in
45 the lighting circuit, an antenna circuit, a local circuit including a relay and having electrical connection with the antenna circuit upon opposite sides of the coherer, a tapper
50 circuit, and a circuit closing circuit having a battery and a closer common to each, said closer adapted to be operated by the relay, and the circuit closing circuit including an electro-magnet for closing the working
55 circuit, the battery common to the tapper and circuit closing circuits having like elements electrically connected with each and having the opposite elements electrically connected with the opposite ends through the circuit
60 closing contact and armature of the afore-said relay.

2. The combination with an electric lighting circuit, electric lamps therein, and a circuit closer therein, of an antenna circuit, a coherer therein, a local circuit including a
65 relay and having an electric connection with the antenna circuit on opposite sides of the coherer, a tapper circuit, an electro-magnet arranged to close the circuit closer of the lamp circuit, a circuit having therein a
70 source of power and connected to said electro-magnet, a circuit closer in the last named circuit, actuated by said relay magnet, an electro-magnet in the lamp circuit adapted
75 to hold the circuit closer of the lamp circuit closed after it has been initially operated, and means for cutting off current through the lamp circuit, thereby demagnetizing said circuit and releasing the circuit closer.

In testimony whereof I affix my signature 80 in presence of two witnesses.

EDWARD B. TUSTIN, JR. [L. S.]

Witnesses:

M. ST. C. FERGUSON,
C. C. PEACOCK.