

(No Model.)

F. S. CARTER.

COMBINED ELECTRIC RECEIVING AND TRANSMITTING DEVICE.

No. 368,809.

Patented Aug. 23, 1887.

Fig. 1.

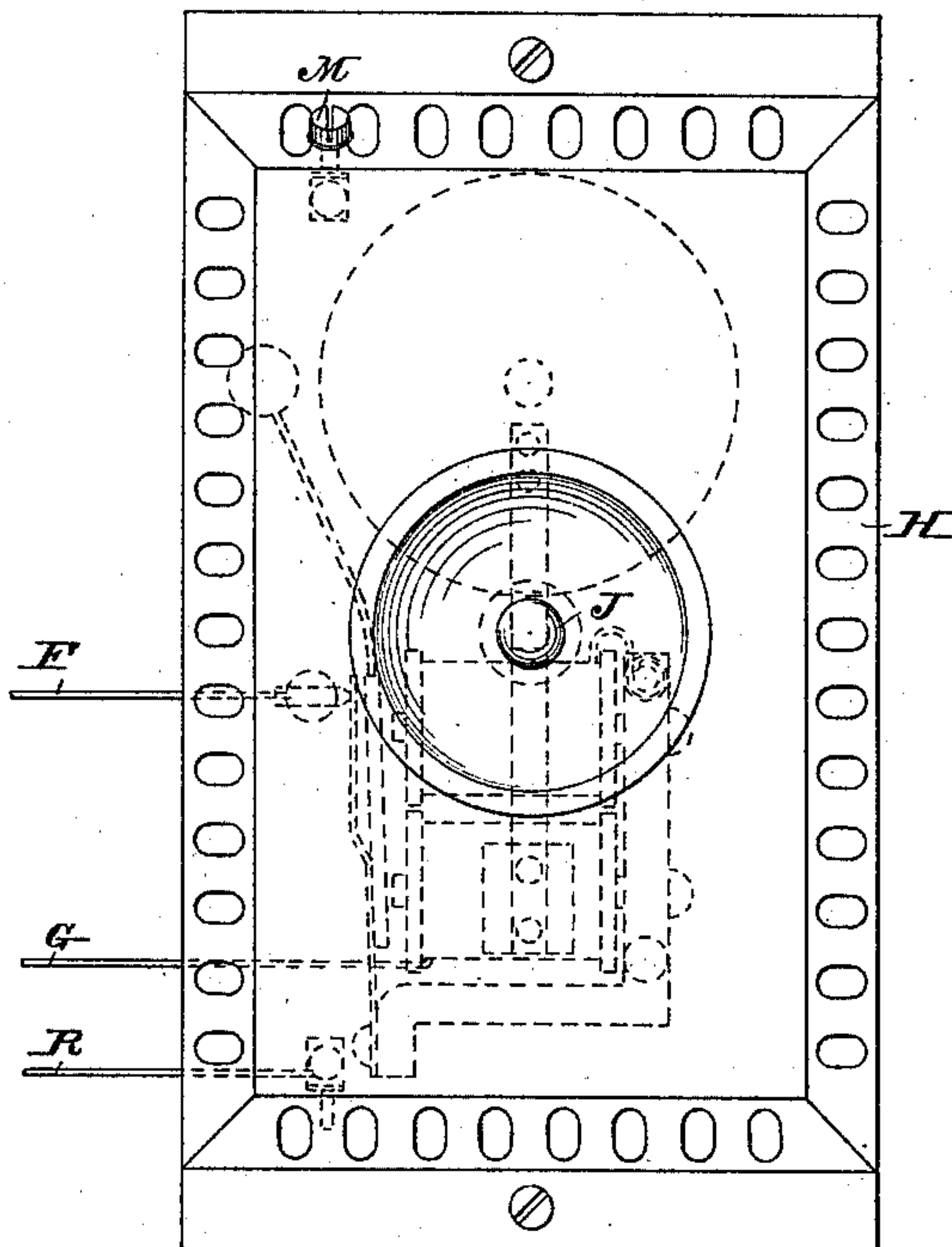


Fig. 2.

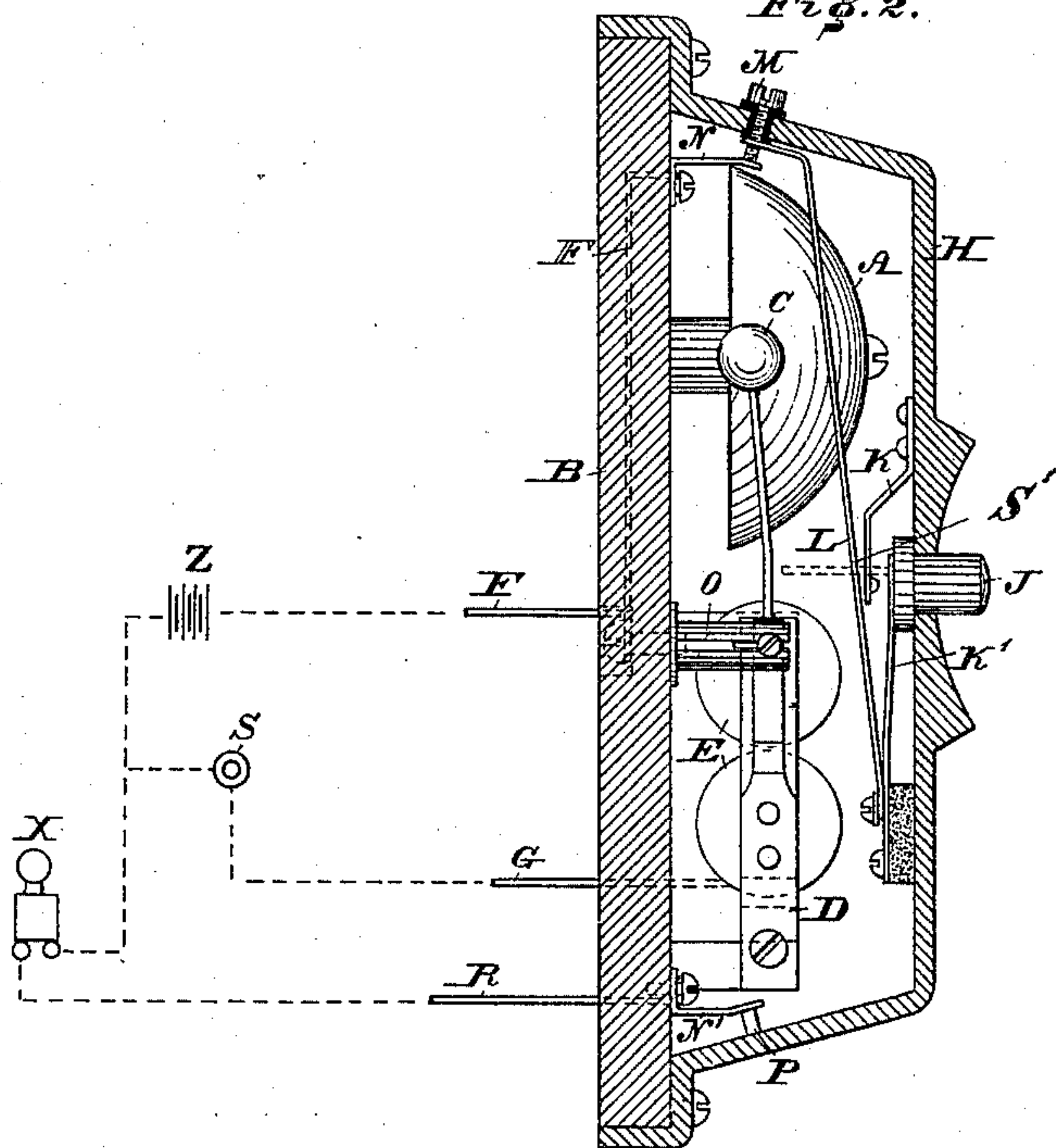
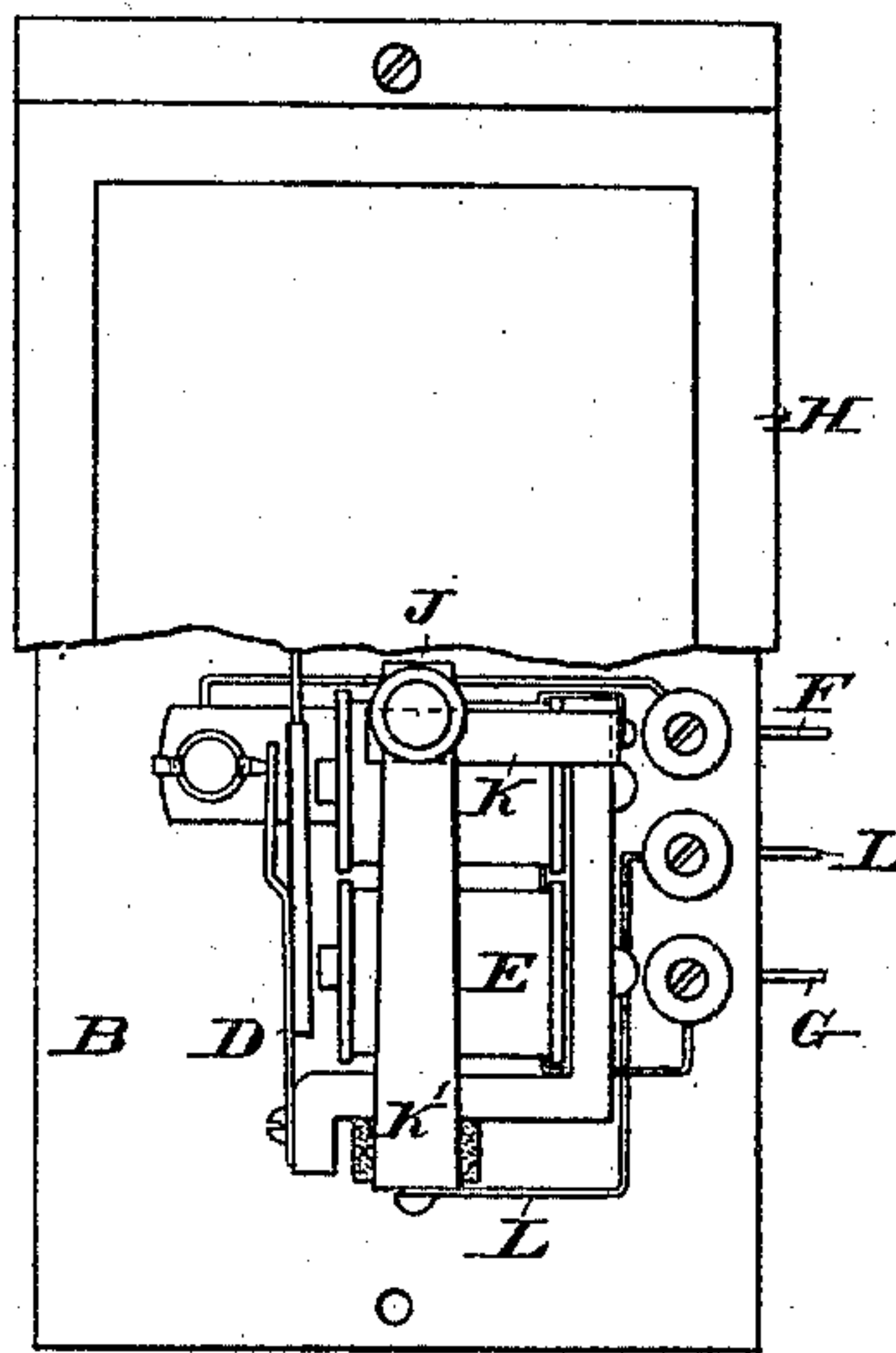


Fig. 3.



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COMBINED ELECTRIC RECEIVING AND TRANSMITTING DEVICE.

SPECIFICATION forming part of Letters Patent No. 368,809, dated August 23, 1887.

Application filed June 12, 1886. Serial No. 204,917. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN S. CARTER, a citizen of the United States, residing at Burlington, in the county of Burlington and State of New Jersey, have invented a new and useful Improvement in Combined Electric Receiving and Transmitting Devices, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure 1 represents a face view of a combined electric signal receiving and transmitting device embodying my invention. Fig. 2 represents a longitudinal section thereof. Fig. 3 represents a view of a modification on a reduced scale.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of an electrically-operated device so constructed that signals may be both received and transmitted by the same.

Referring to the drawings, A represents a bell or gong, which is supported upon the back or plate B, and C represents a hammer for said bell, the same being connected with the armature D of an electro-magnet, E, the latter being supported upon the back B.

The parts thus far described, in connection with the wires F G, form a well-known electric bell, which may be operated from any apartment or place where a proper button, S, is located.

H represents a cap or cover formed of metal or other suitable material and secured to the back B, the same having fitted to its center a push-button, J. To the inner face of the cap or cover H are secured contact-springs K and K', the spring K being directly connected to the cap and the spring K' being insulated from the cap by a block of hard rubber or other insulating material. The spring K' also serves to hold the push button or knob J in place and to restore it to its normal condition after being operated or pushed. The spring K' is connected by a strip of metal or a wire, L, to the screw or point M, which is insulated from the cap, said screw being connected with or bearing against a piece of metal, N, secured to the base B. The spring K has electrical connection through the cap H with the point

P, where contact is made with metal strip N', secured to the base B.

The operation of the device when connected or to be used in a building or in an electric circuit is as follows: When the push-button or circuit-closer S is pushed, the current from the battery Z passes through the wire F to the contact-standard O, thence through the armature to the electro-magnet, and out by the wire G back to the battery Z, thereby sounding or ringing the bell A. When the push-button J on the cap is pushed, the current from the battery Z passes through the wire F to the strip N, to the point or screw M, to the spring K', to spring K, through the cap to the point N', to wire R, through bell X, back to the battery Z, ringing the bell X.

My device is principally intended to be used in buildings where there are push-buttons and bells required to be placed in the various rooms or apartments connected to suitable batteries and pushes located in a central station or office. My device, embodying an electric bell and push, is intended to combine the two, so that the time and labor now required to place separate and distinct apparatus is greatly lessened, and that all parts of the bell and push are protected from injury, displacement, or interference by means of the cover or cap, and that by means of the connections that are made on the base easy access to the working parts is had by removing the cap, without having to disconnect or connect any of the wires.

In Fig. 3 I show a modification in which contact-springs K K' are secured to the support of the magnet E, the spring K' being insulated from said support by a piece of suitable insulating material and adapted to be placed in contact with the spring K by means of the push-button J, against which said spring K' rests or to which it is secured, the wire L being directly connected with the spring K', in which case the screw M, piece N, point P, and strip N' are dispensed with.

To prevent or render impossible the ringing of the bell during the time when it is desired to operate the transmitting portion of the device, a projecting pin, S', (see dotted lines, Fig. 2,) is attached to the push-button J and

placed so as to come in contact with the arm of the bell-hammer of the bell A, whereby the movement of the said bell-hammer is prevented, and consequently the ringing of the bell A.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, in an electric signaling device, of a generator of electricity with two signaling-circuits having a common return-circuit and two signaling-instruments located at independent stations, one having a circuit-closer located within the casing of the box which contains the signal-bell and having a projecting pin for mechanically preventing the operation of said bell when both circuit-closers are actuated, the other instrument having a circuit-closer located at a point exterior to the bell containing box, substantially as described.

2. A combined electric signal receiving and transmitting device consisting of the electric receiving-bell A, inclosed in casing H, the push-button J, the spring K, electrically connected to said casing, the spring K', and rod L, both electrically insulated from said casing, the insulated screw M, in contact with the rod L, the metallic piece N, in contact with the screw M and secured to the base B, the point P, the metallic strip N', secured to the base and in contact with the point P, and an electric circuit having a push-button and an alarm, all substantially as and for the purpose set forth.

3. The combination, in an electrical signal-

ing device, of two signaling-instruments located at different stations with a battery and circuits, as described, and two circuit-closers, one at each station, one of said circuit-closers being provided with a projecting lug for mechanically preventing the action of the bell with which it is connected when both circuit-closers are operated at the same time, substantially as described.

4. In an electrical signaling device, the combination of an inclosed signal-bell with an electro-magnet for actuating said bell, and a circuit-closing device attached to the inclosing-case and having a pin for mechanically preventing the action of the bell when the circuit-closer is depressed, substantially as described.

5. A combined electric receiving and transmitting device having the push-button of the transmitting device provided with a projecting pin, whereby the arm of the hammer of the receiving-bell is prevented from operating, all substantially as described.

6. The combination, in an electric signaling device, of a signal-bell having a case inclosing said bell and its attachments, with a circuit-closer having a push-button projecting through the inclosing-case and provided with a projecting pin for mechanically preventing the action of the bell when the push-button is depressed, substantially as described.

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Witnesses:

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