

(No Model.)

J. D. RANDALL.
DETACHABLE CIRCUIT CLOSING DEVICE FOR ELECTRIC BELLS AND
ANNUNCIATORS.

No. 391,917.

Patented Oct. 30, 1888.

Fig. 1.

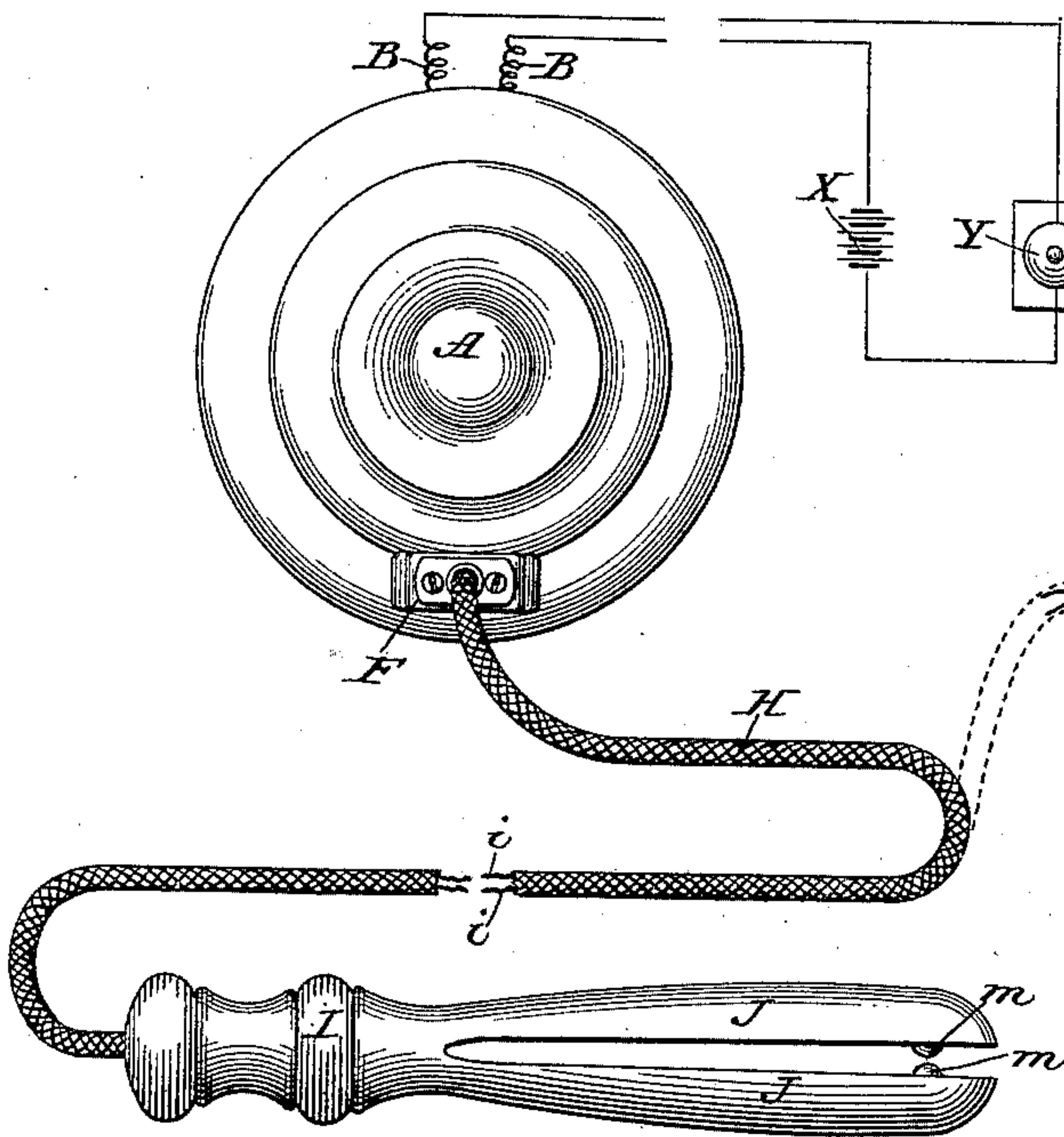


Fig. 2.

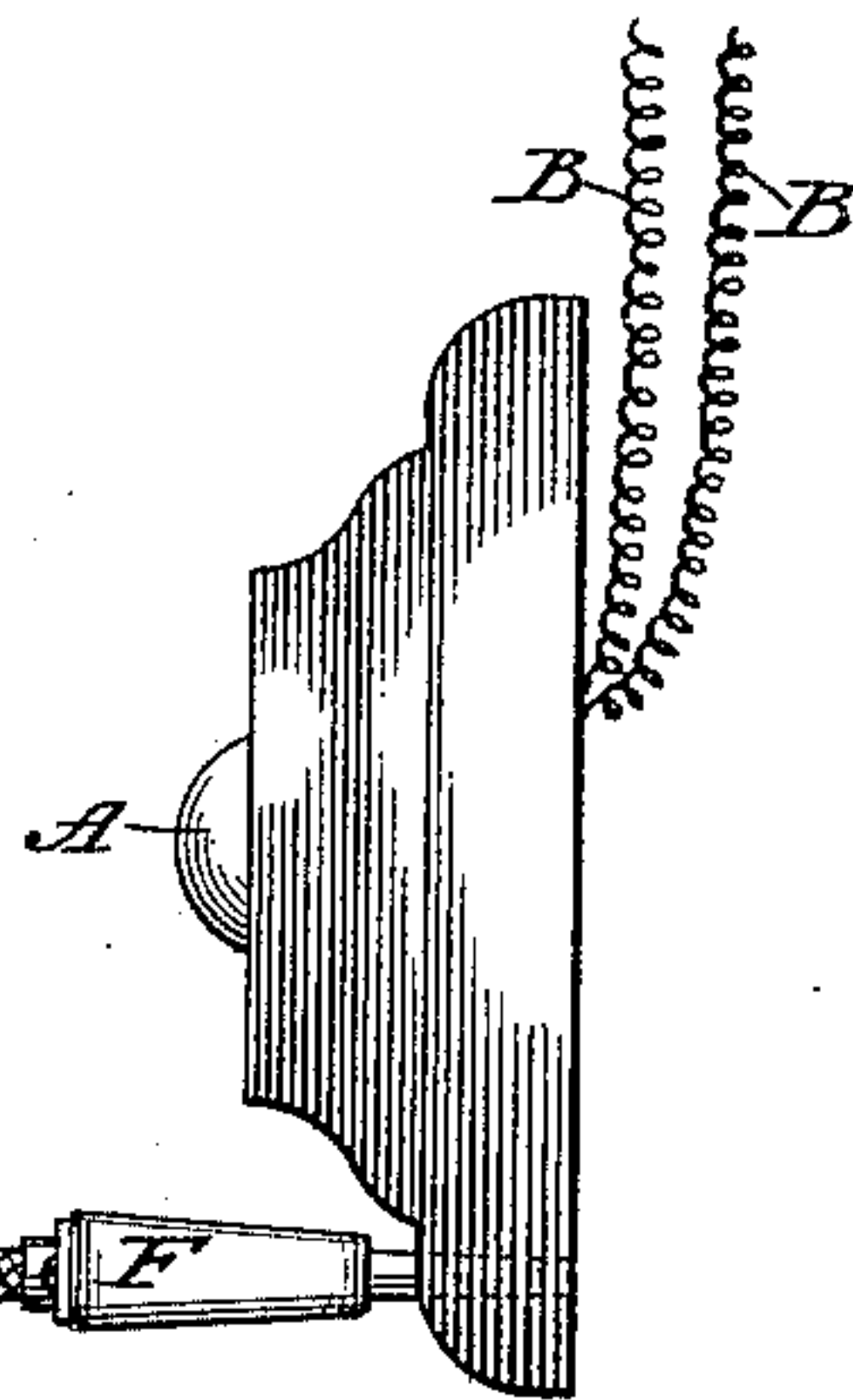


Fig. 3.

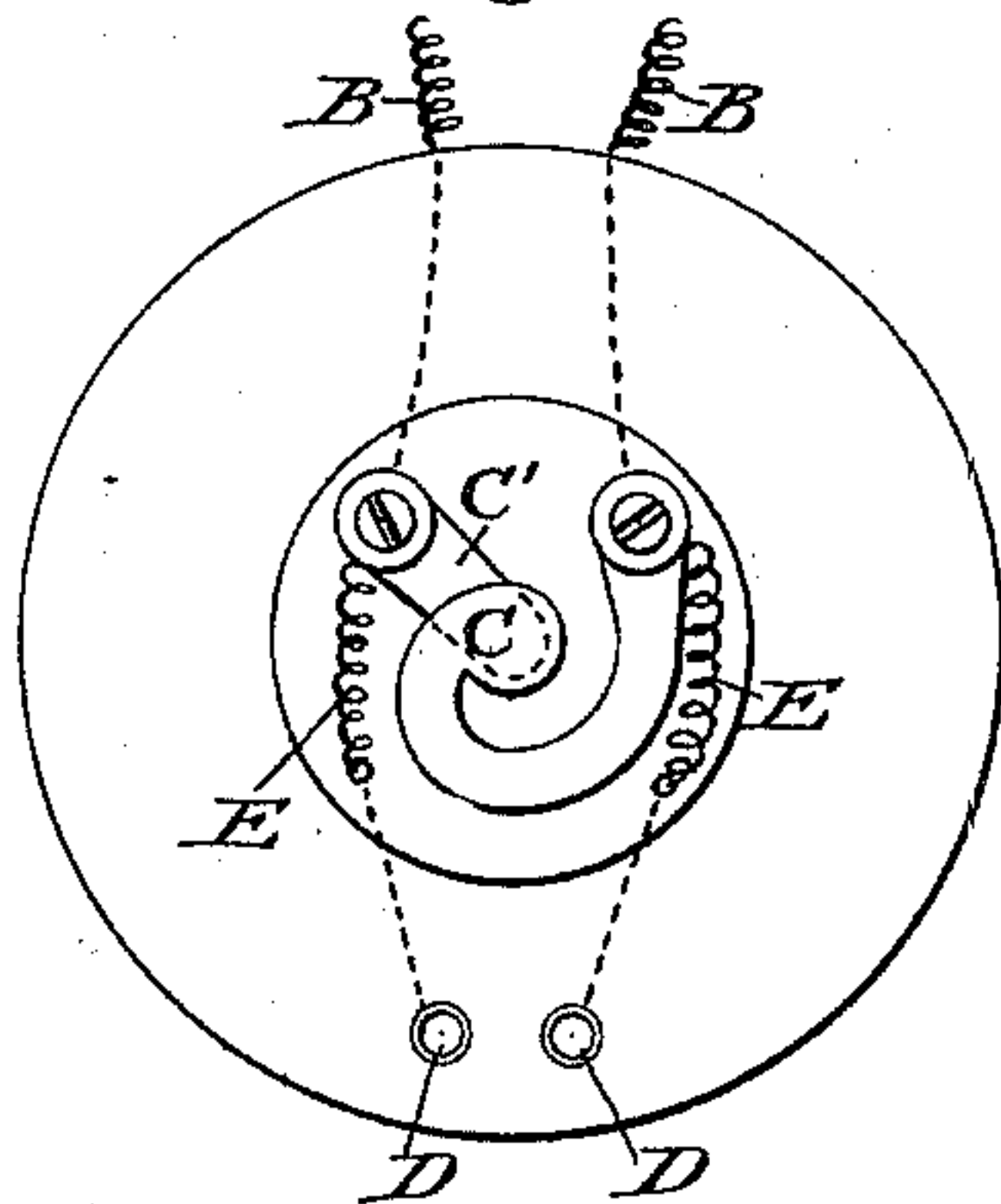


Fig. 4.

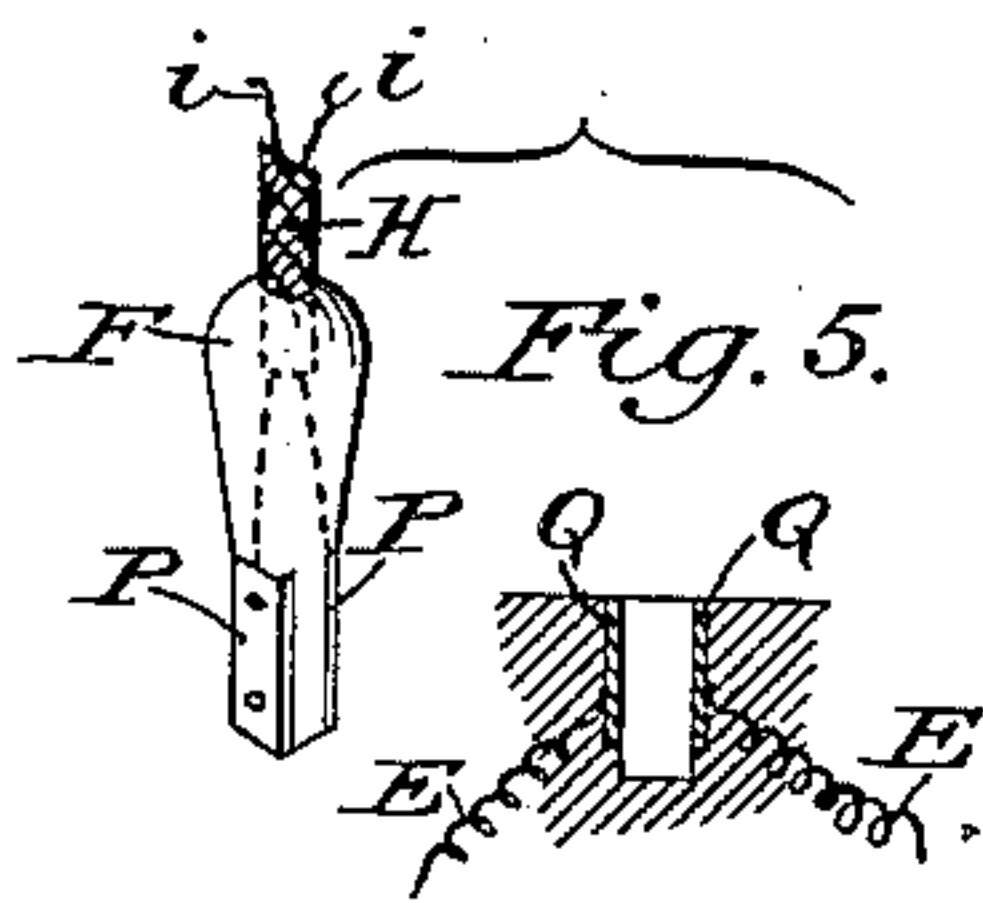
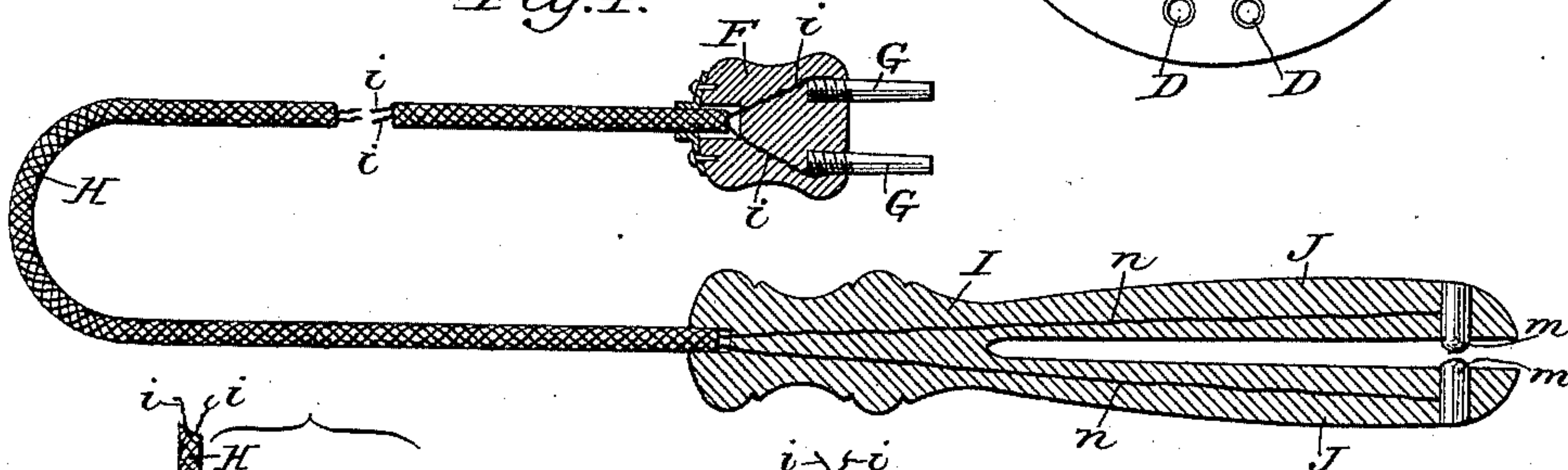
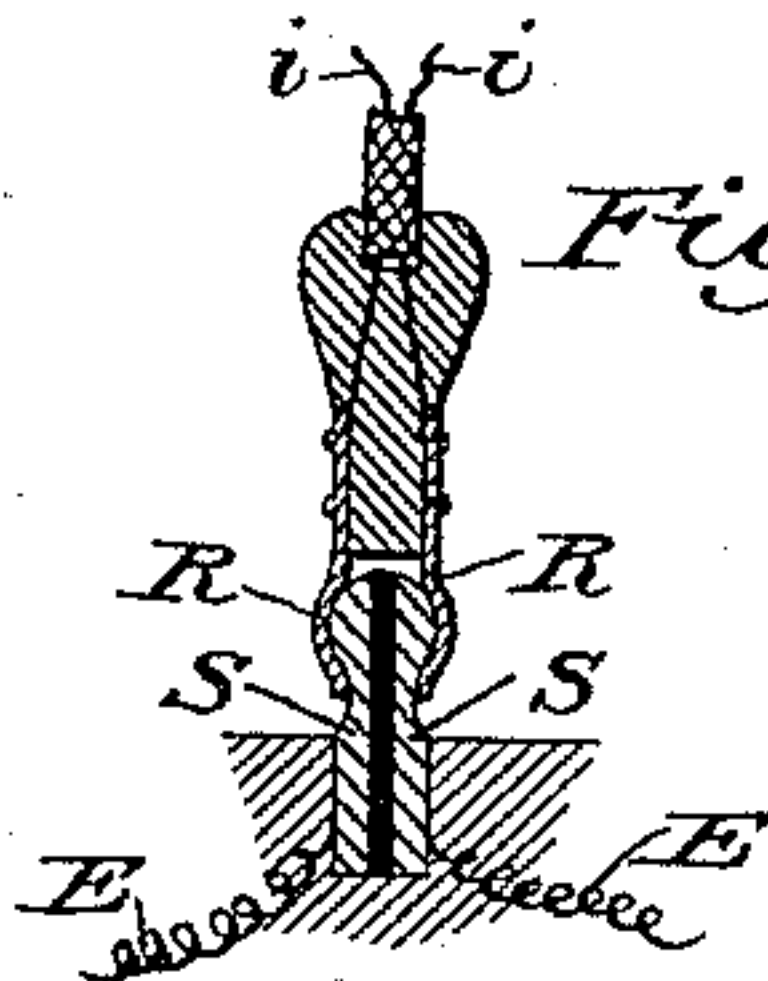


Fig. 6.



Attest:

A. N. Jespersen.
E. M. Watson.

Inventor:

James D. Randall.
By David A. Burr,
Atty

UNITED STATES PATENT OFFICE.

JAMES D. RANDALL, OF MEMPHIS, TENNESSEE, ASSIGNOR OF ONE HALF TO
GEORGE SCHMALZRIED, JR., OF SAME PLACE.

DETACHABLE CIRCUIT-CLOSING DEVICE FOR ELECTRIC BELLS AND ANNUNCIATORS.

SPECIFICATION forming part of Letters Patent No. 391,917, dated October 30, 1888.

Application filed May 22, 1888. Serial No. 274,730. (No model.)

To all whom it may concern:

Be it known that I, JAMES D. RANDALL, of Memphis, in the county of Shelby and State of Tennessee, have invented a new and useful Detachable Circuit-Closing Device for Electric Bells and Annunciators; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification, in which—

Figure 1 is a front view, and Fig. 2 a side view, of an ordinary push-button for electric bells having my attachment connected therewith. Fig. 3 is a plan of the base of the push-button, the upper casing and button being removed, showing the combination and arrangement of the sockets and connecting-wires for the coupler; and Fig. 4 is a sectional view of the detachable coupler and auxiliary portable circuit-closer. Figs. 5 and 6 illustrate modifications in construction and attachment of the coupler to the push-button plate.

The object of my invention is to provide a detachable circuit-closing device which may be used in connection with the ordinary switch-buttons in apartments fitted with electric call-bells or annunciators, whereby the call-bell circuit may be closed by a person lying in bed or otherwise located at a point removed from the button, and an invalid or helpless person be enabled to ring the bell for an attendant without exertion and without change of position.

It consists in the combination, with suitable sockets or contact-plates fixed in the base of the push-button or other form of switch or circuit-closer, attached in the usual manner to the wall of the room, and severally connected by separate conducting-wires with the two electrodes of the device, of a key or coupler fitted with separate insulated pins or contact-plates to engage said fixed sockets or plates, and which are severally connected by the insulated wires in a conducting-cord with opposed contact-points in a divided handle, kept apart by a spring in readiness to be closed by its compression, or with any equivalent portable circuit-closing device.

In the accompanying drawings, A represents

a push-button or circuit-closer of any approved description, as commonly employed for closing an electric circuit to ring a bell, actuate an annunciator, or otherwise operate an alarm or signaling device; and B B, Figs. 1, 2, and 3, are the circuit-wires leading to the battery X and bell Y, and which are connected to the electrode plates or points C C', whose contact operates to close the circuit.

D D, Fig. 3, are metallic sockets fitted at any suitable point in the base or casing of the push-button A, so as to be accessible on its outer face. These sockets, although placed close together, are insulated each from the other, and are severally connected by conducting-wires E E with the circuit-wires B B.

F is a coupling-key, of wood, rubber, or other insulating material, provided with two separate projecting pins, G G, adapted to fit into the sockets D D of the push-button. This coupler is attached to one end of a conducting-cord, H, of any suitable length, containing two insulated conducting-wires, *i i*, which are connected severally to the pins G G. The other end of the conducting-cord H is attached to a portable handle, I, formed in two elastic arms, J J, whose ends are severally provided with metallic plates or points *m m*, adapted to be brought into contact by pressing the two arms together as the device is held in the hand. These points *m m* are severally connected by conducting-wires *n n* with the insulated wires in the conducting-cord H, so that when the coupler F is inserted in its seat in the push-button A the points *m m* become electrodes for the circuit equally with the plates C C'.

Many equivalent modifications in the means for coupling or connecting the wires *i i* of the conducting-cord with the electrodes or circuit-wires of the stationary push-button A will suggest themselves to practical electricians as a substitute for the two sockets D D and pins G G of the coupling key F—as, for example, the coupler F may be constructed with metallic plates P P on two opposite faces thereof, and adapted to fit into a counterpart hole having metallic strips Q Q fitted at opposite points in its encircling wall, to contact, respectively, with the key-plates, as shown in Fig. 5; or the coupler may be fitted with two separate metal-

lic springs, R R, adapted to clasp two separate insulated metallic plates, S S, forming a head or stud to be engaged by the springs, as shown in Fig. 6, the plates or springs on the coupler
5 being severally connected in each case with the wires *i i* of the cord H, and the strips in the hole or the plates on the stud being severally connected by wires E E with the circuit-wires B B of the push-button on the wall.
10 In the use of this improved attachment for call-bells, the coupler F is inserted in the seat provided for it in the base of the push-button on the wall, and the circuit-closing handle I is carried to the invalid, whether seated or lying
15 on a bed or lounge in any part of the room, the flexible conducting cord H permitting the handle to be placed within easy reach, and, if need be, under the covering. A gentle pressure upon the handle will, by closing its arms J J,
20 suffice to close the circuit and ring the call-bell Y.

The attachment will be found useful not only for invalids, but as a convenient means of

alarm which may be sounded at night by a person in bed, without rising, in case of the
25 approach of a burglar or upon other sudden emergency.

I claim as my invention—

The combination of the stationary circuit-closer or push-button, the circuit-wires con-
30 nected therewith and with a battery and call bell or signal, a coupling seat or socket having electrodes connected severally with said wires, a detachable coupler fitting said seat or
35 socket and having contact-plates to connect with its electrodes, insulated wires connected severally with said contact-plates, and a circuit-closing device attached to said wires, sub-
stantially as and for the purpose set forth.

In testimony whereof I have signed my name
40 to this specification in the presence of two subscribing witnesses.

JAMES D. RANDALL.

Witnesses:

HUNSDON CARY,
GEO. SCHMALZRIED, Jr.