

(No Model.)

F. R. BRAINARD.
ELECTRIC PUSH BUTTON.

No. 355,858.

Patented Jan. 11, 1887.

fig: 1.

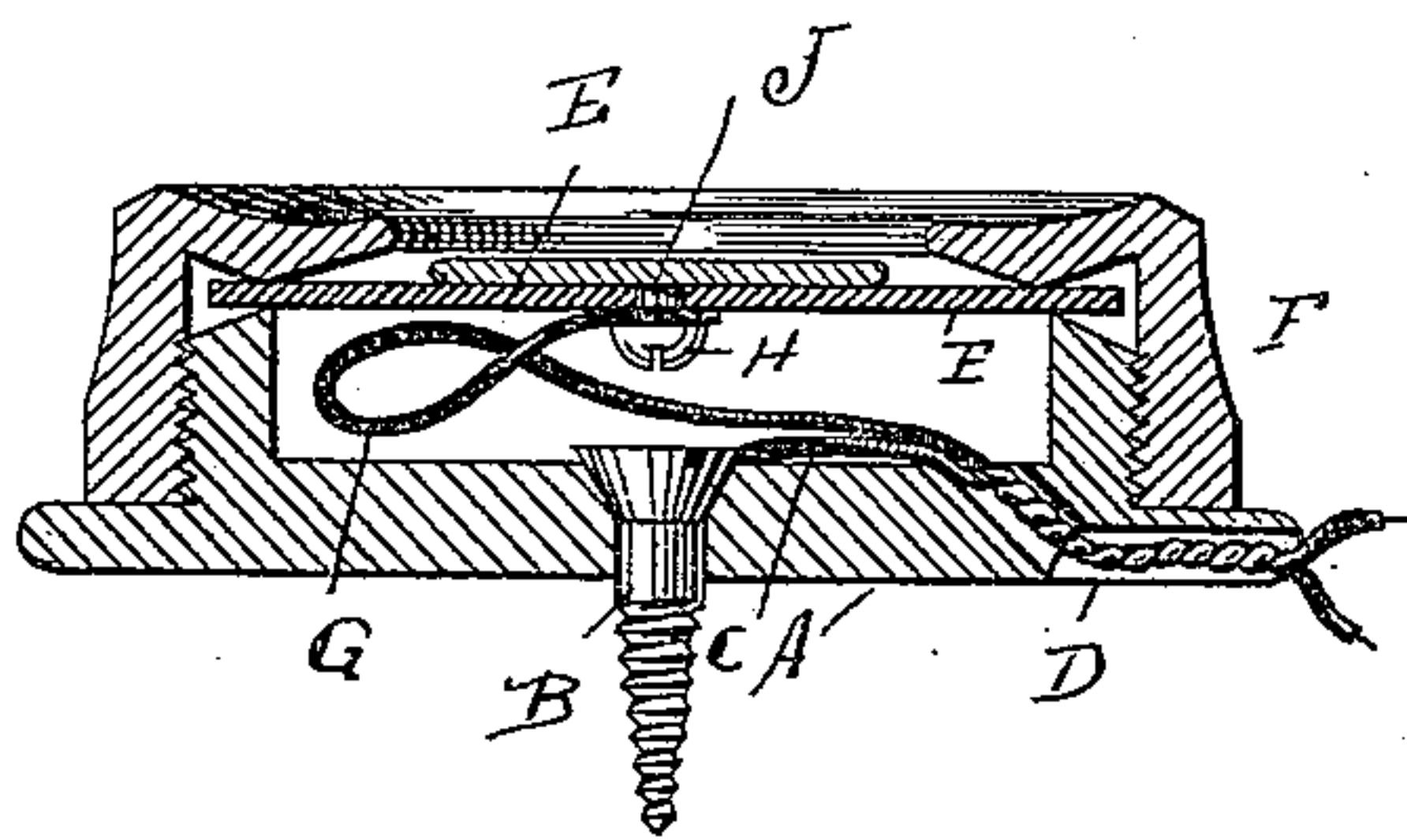


fig: 2.

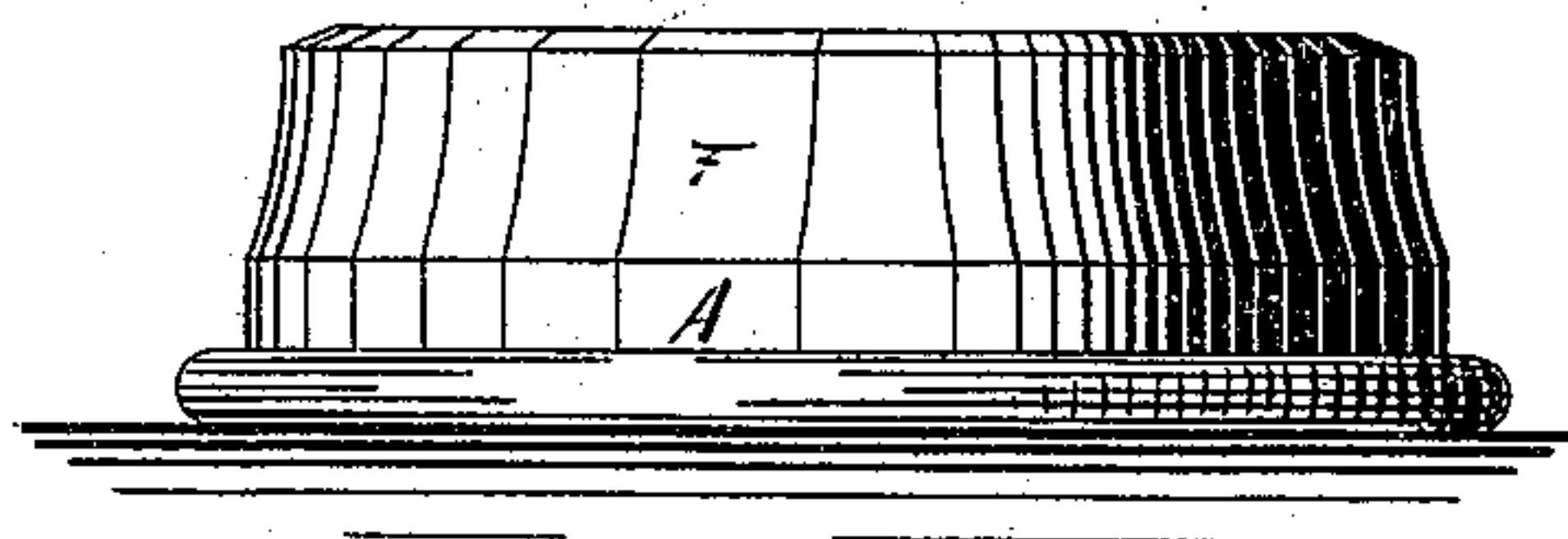
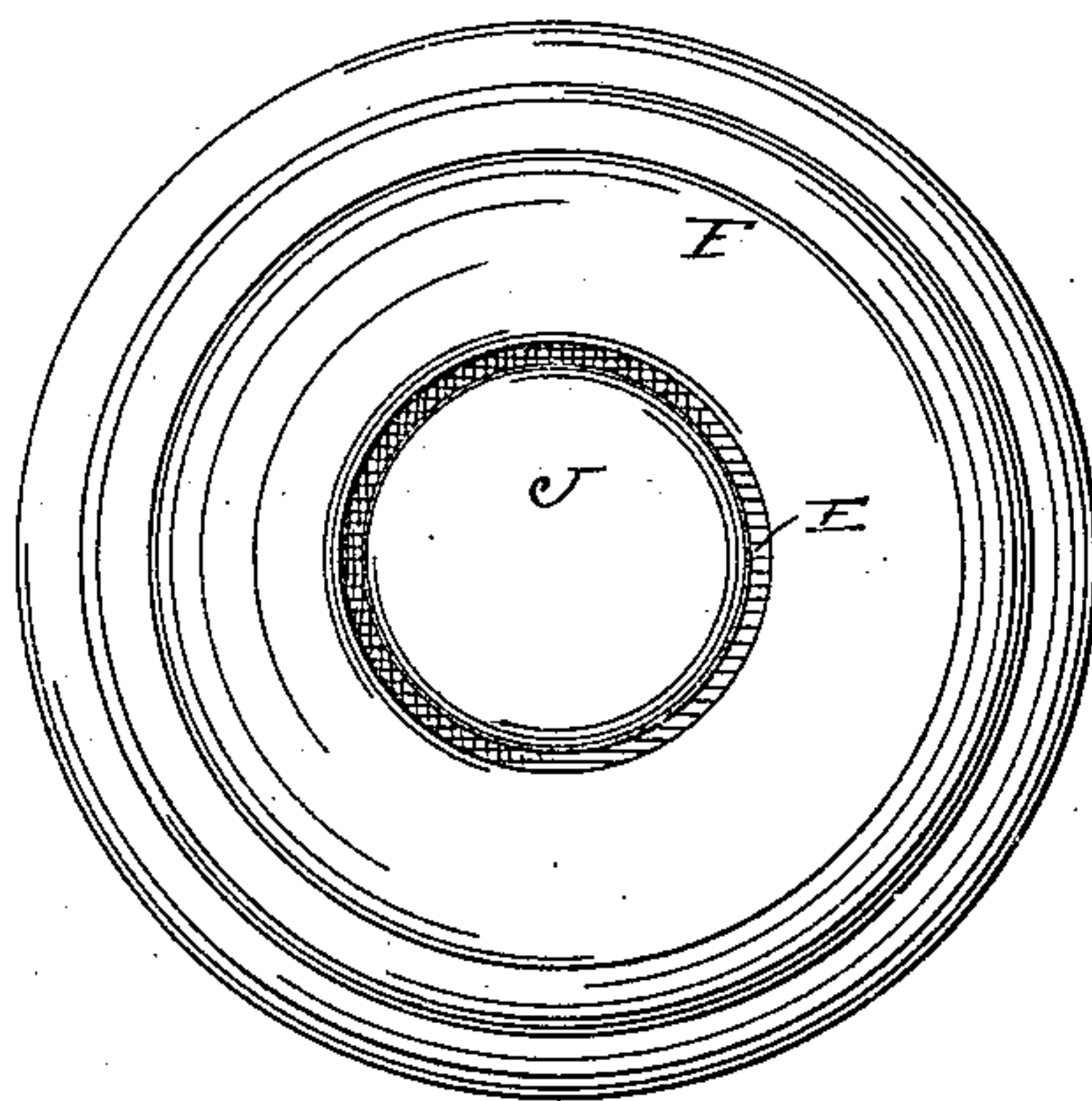


fig: 3.



WITNESSES:

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UNITED STATES PATENT OFFICE.

FRED R. BRAINARD, OF ANNAPOLIS, MARYLAND.

ELECTRIC PUSH-BUTTON.

SPECIFICATION forming part of Letters Patent No. 355,858, dated January 11, 1887.

Application filed September 3, 1886. Serial No. 212,576. (No model.)

To all whom it may concern:

Be it known that I, FRED R. BRAINARD, of Annapolis, in the county of Anne Arundel, State of Maryland, have invented certain new and useful Improvements in Electric Push-Buttons, of which the following is a specification.

In many places the ordinary electric push-button cannot be used, as the action of moist salt-air or other corrosive atmospheric influences destroys the action of the ordinary push-button in a short time.

The object of my invention is to provide a new and improved push-button which cannot be affected by atmospheric or like influences, and which is simple in construction.

The invention consists in a casing fastened by a screw, to which one wire is connected, and a rubber or like expansible diaphragm held in the casing, and to which another wire is connected, whereby when the diaphragm is pressed downward the fastening devices of this wire are brought in contact with the above-mentioned screw and the circuit is closed.

In the accompanying drawings, Figure 1 is a cross-sectional view of my improved push-button. Fig. 2 is a side view of the same, and Fig. 3 is a top view.

Similar letters of reference indicate corresponding parts.

A circuit block or casing, A, of rubber or other insulating material, is fastened by means of the screw B, in the countersink of which one end of the wire C is passed, whereby the said wire is held in contact with the head of the screw, the wire being passed through an aperture, D, in the block A. The block A is provided with an upwardly-projecting externally-screw-threaded neck, on the top of which a plate or diaphragm, E, of rubber or other like expansible material, is placed, and on said neck of the block A a cap, F, is screwed, which is provided with an upwardly-projecting flange, which presses on the top of the diaphragm and presses said diaphragm firmly on the top edges of the neck, and thereby a firm and absolutely air and moisture tight joint is obtained. The other conducting-wire G is held

by the screw H on the under side of the diaphragm or plate E, which screw is passed through the diaphragm and screws in a plate, J, on the upper surface of the diaphragm.

By pressing the diaphragm downward the screws H and B are brought in contact and the circuit closed. As soon as the pressure is removed from the diaphragm the spring-pressure of the diaphragm causes it to rise, thus breaking the circuit. The wires G and C are preferably twisted together and passed through the apertures D, said wires being suitably insulated.

The push-button is simple in construction, cheap, and can be more easily applied than the usual push-button.

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

1. In a push-button, the combination, with a block having an upwardly-projecting screw-neck, of a rubber plate or diaphragm placed on the top of the screw-neck, a cap screwed on the screw-neck and holding the rubber plate in place, a contact-piece on the block, with which one of the connecting-wires is in contact, and a contact-piece on the under side of the diaphragm, substantially as shown and described.

2. In an electric push-button, the combination, with a block having an externally-threaded screw-neck, of a screw for holding the block in place, with which screw one of the wires is connected, a rubber plate on the top of the neck, a screw-cap screwed on the neck and holding the rubber plate in place, a plate on the top of the rubber, and held in place on the same by a screw projecting from the bottom surface of the rubber plate, to which screw the other connecting-wire is fastened, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

FRED R. BRAINARD.

Witnesses:

SIDNEY MANN,
MARTIN PETRY.