

(No Model.)

G. W. WRIGHT.
PUSH BUTTON.

No. 455,086.

Patented June 30, 1891.

Fig. 1

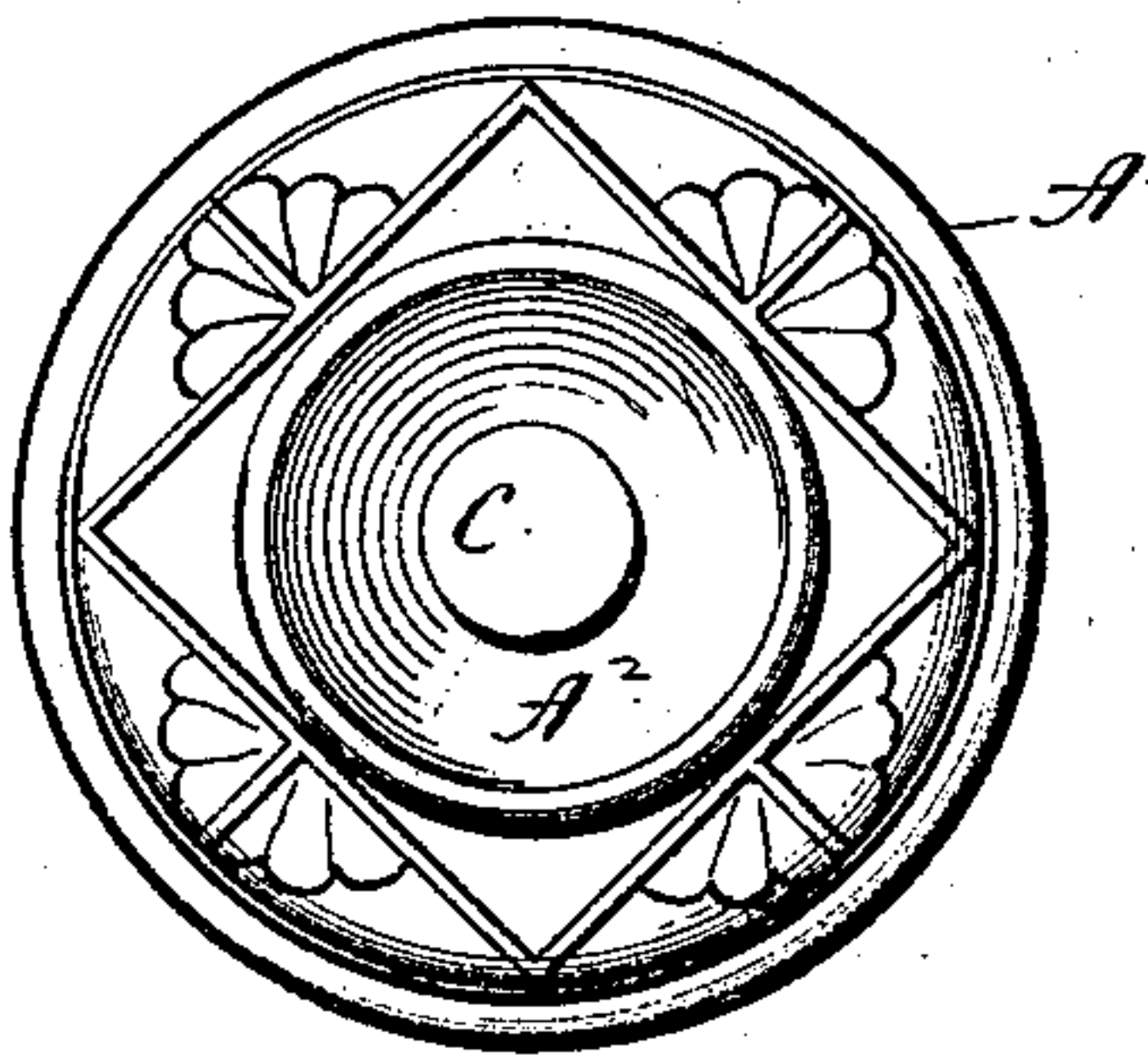


Fig. 2

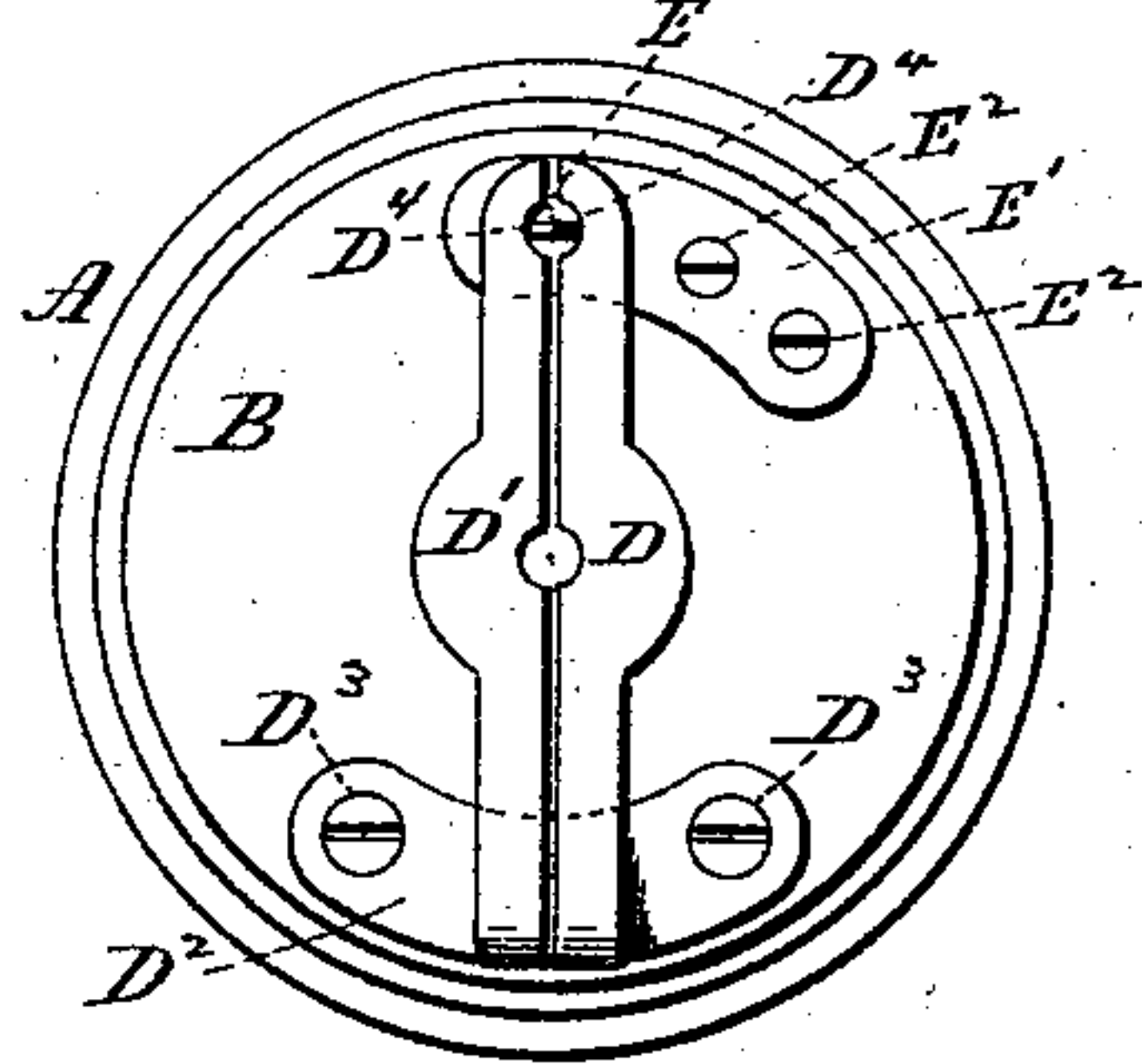


Fig. 3

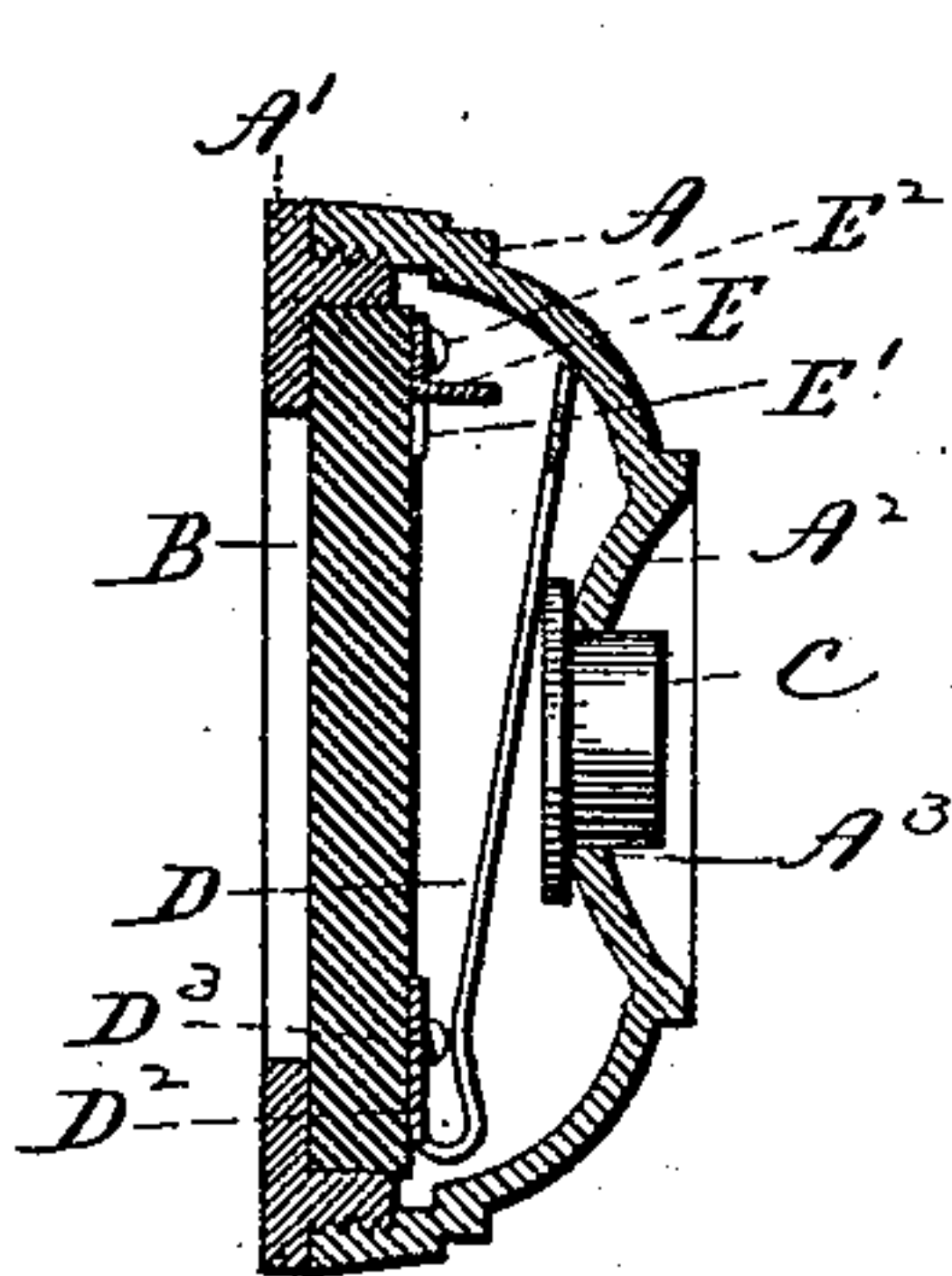


Fig. 5

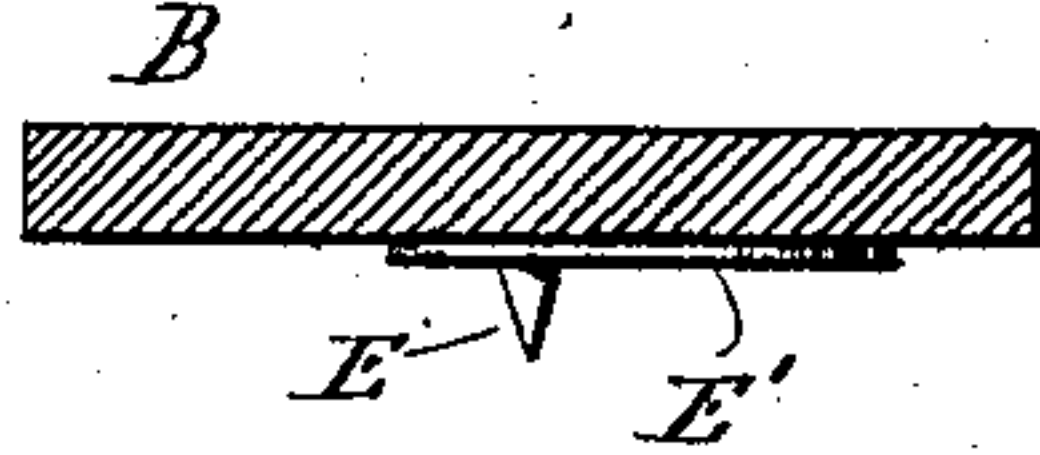


Fig. 6

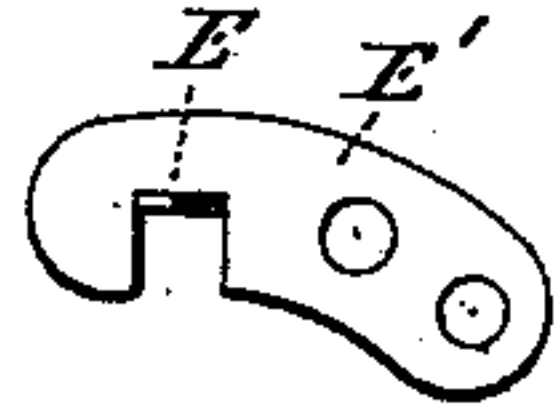
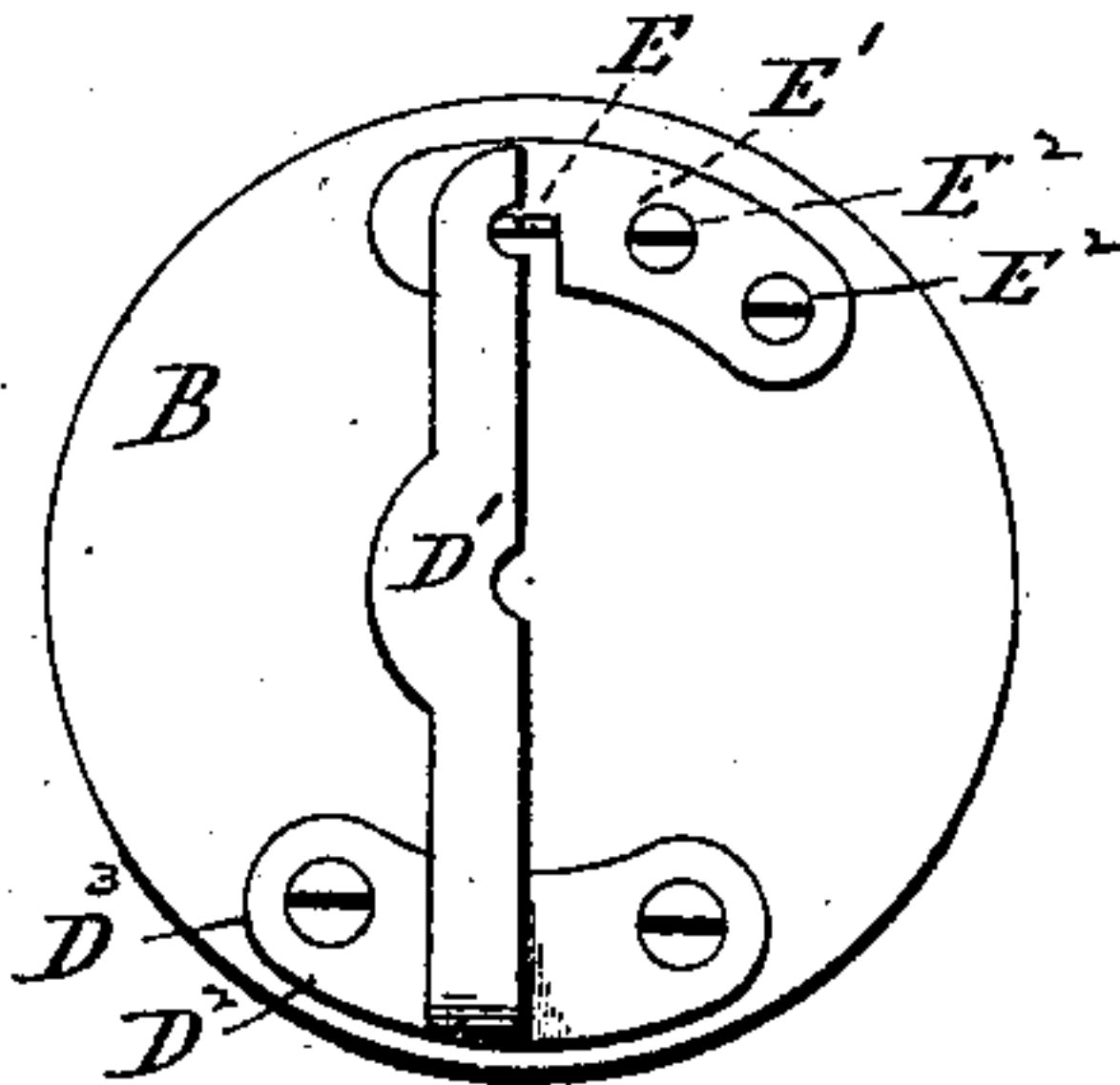


Fig. 4



Witnesses
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UNITED STATES PATENT OFFICE.

GRANVILLE W. WRIGHT, OF NEW HAVEN, CONNECTICUT, ASSIGNOR TO
SARGENT & COMPANY, OF SAME PLACE.

PUSH-BUTTON.

SPECIFICATION forming part of Letters Patent No. 455,086, dated June 30, 1891.

Application filed April 10, 1891. Serial No. 388,401. (No model.)

To all whom it may concern:

Be it known that I, GRANVILLE W. WRIGHT, of New Haven, in the county of New Haven and State of Connecticut, have invented new
5 Improvements in Push-Buttons; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the
10 same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in front elevation of a push-button constructed in accordance with my invention; Fig. 2, a view thereof with the shell
15 of the device removed; Fig. 3, a view of the device in central transverse section; Fig. 4, a detached plan view of the insulating-disk, showing the contact-spring and the contact-point, one finger of the spring being broken
20 away; Fig. 5, a detached sectional view of the said disk, showing the wedge-shaped contact-point in elevation; Fig. 6, a detached plan view of the said contact-point and of the plate of which it forms a part.

25 My invention relates to an improvement in push-buttons, the object being to provide a cheap and durable device in which an effective contact will always be secured.

With these ends in view my invention consists in the combination, with a case, of a button movably mounted therein, an insulated contact-spring located within the case at substantially a right angle to the said button, which engages with it about midway of its
30 length and free at one end, and an insulated contact-point located adjacent to the free end of the spring and presenting thereto an inclined surface arranged to move the same laterally.

40 My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, the push-button has a case
45 consisting of a shell A and a ring A', adapted to be fastened together and to hold between them an insulating-disk B, of rubber or equivalent material, the shell being provided with a central depression A², having an opening
50 A³, through which the button C projects for engagement in operating the instrument.

The inner end of the said button is flanged and engages with a contact-spring extending at substantially a right angle to it and secured at one end to the disk. As herein shown, this
55 spring is longitudinally split to form two fingers D and D' and is provided at one end with a transverse foot D², perforated to receive screws D³, by means of which it is attached to the disk, the fingers D and D' being bent
60 over the said foot and springing where bent. The free ends of these springs have their adjacent edges correspondingly cut away, as at D⁴ D⁴, to form an entrance-opening for a wedge-shaped contact-point E, secured to the
65 disk B at a point thereon opposite the attachment of the contact-spring. As herein shown, this wedge-shaped contact-point consists of a tooth turned up from a small segmental plate E', provided at one end with perforations to
70 receive screws E² E², by means of which it is attached to the disk. As herein shown also, the contact-spring is enlarged midway of its length, where it is engaged by the inner end of the contact-button.

75 Under the described construction, when the contact-spring is forced into engagement with the contact-point the same will move it laterally against its own tension and always secure an effective contact and rub hard enough to
80 keep the two surfaces bright. If desired, one finger may be used instead of two, as herein shown, but I prefer to employ two fingers; nor is it necessary that the contact-spring or the contact-point be constructed as described,
85 for obviously they may take different forms so long as their general arrangement is preserved. I would therefore have it understood that I do not limit myself to the exact construction herein shown and described, but
90 hold myself at liberty to make such changes and alterations as fairly fall within the spirit and scope of my invention.

I would also call attention to the fact that my invention, as hereinbefore set forth, may
95 be employed in the construction of electric bell-pulls which are designed to simulate the common bell-pull connected with a wire running to a bell.

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

1. In a push-button, the combination, with
a case, of a button movably mounted therein,
an insulated contact-spring located within the
case and at substantially a right angle to the
5 said button, which engages it about midway
of its length and free at one end, and an in-
sulated contact-point located adjacent to the
free end of the spring and presenting thereto
an inclined surface arranged to move the same
10 laterally, whereby the spring is simultane-
ously moved inwardly by the button and lat-
erally by the contact-point, substantially as
set forth.

2. In a push-button, the combination, with
15 a case, of a button movably mounted therein,
an insulated contact-spring located within the
case at substantially a right angle to the said
button and longitudinally split to form two
fingers, and an insulated wedge-shaped con-
20 tact-point which enters between the two
spring-fingers and spreads them laterally
apart, substantially as described.

3. In a push-button, the combination, with
a case, of a button movably mounted therein,
an insulating-disk located within the case, a 25
contact-spring having at one end a transverse
foot made in the same piece with it and
adapting it to be attached to the said disk,
the said spring being bent over the said foot
and longitudinally split to form two fingers 30
which at their free ends are correspondingly
cut away to form a clearance-opening, and a
wedge-shaped contact-point also attached to
the said disk and adapted to enter the said
opening and spread the spring-fingers when 35
they are crowded down upon it by the button,
substantially as set forth.

In testimony whereof I have signed this
specification in the presence of two subscrib-
ing witnesses.

GRANVILLE W. WRIGHT.

Witnesses:

ELLIOTT LITTLEJOHN,
WM. S. COOKE.