

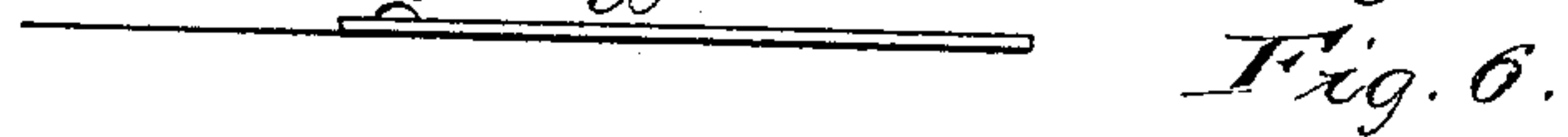
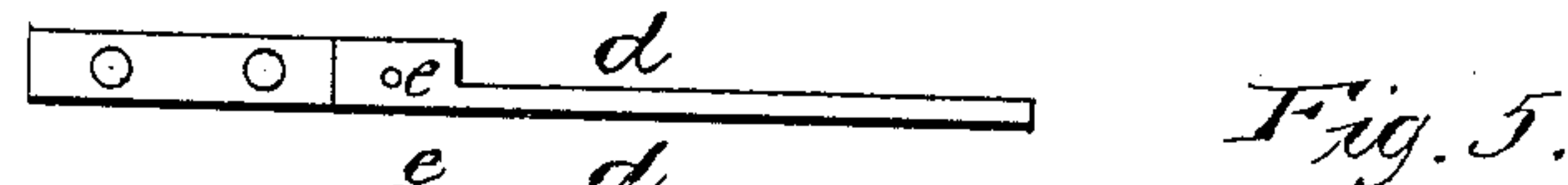
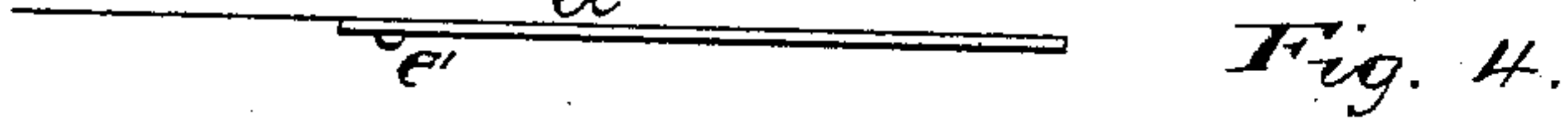
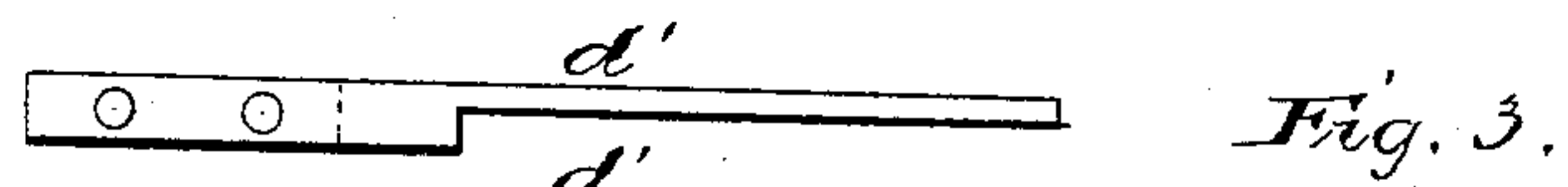
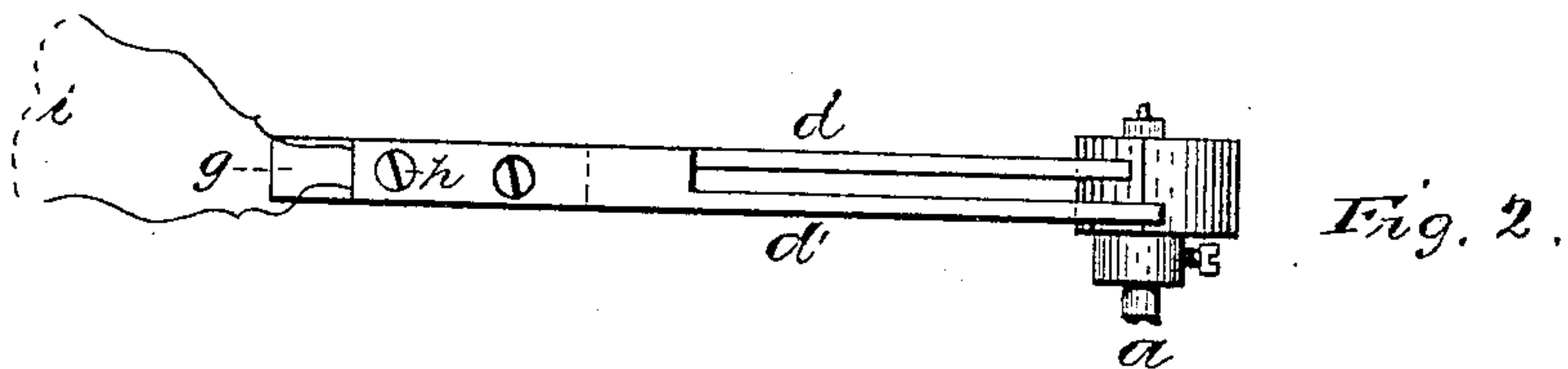
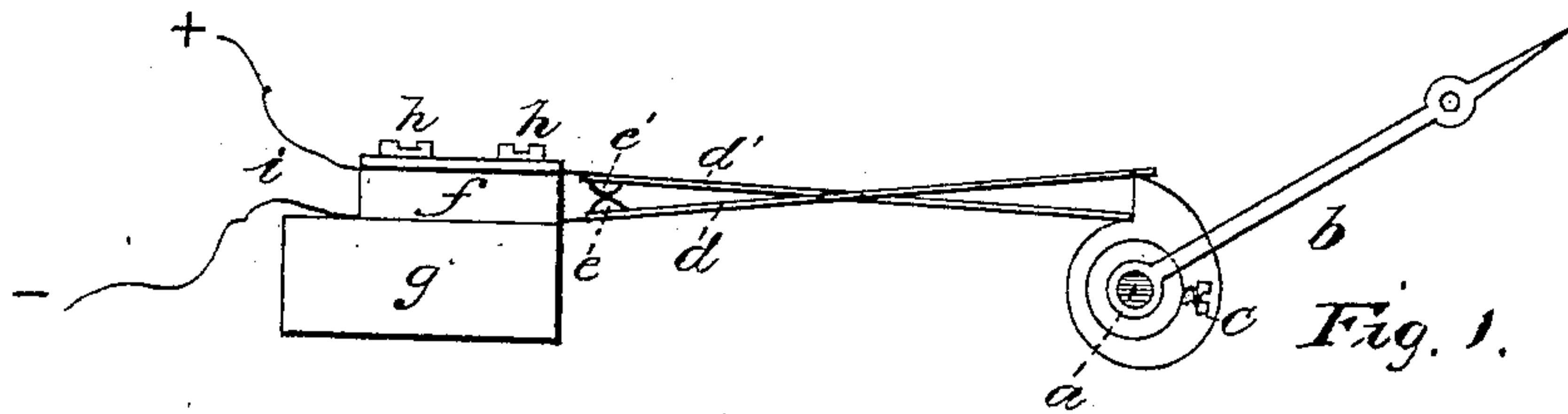
(No Model.)

G. B. WEBB.

CIRCUIT BREAKER FOR ELECTRIC CLOCKS.

No. 289,944.

Patented Dec. 11, 1883.



Attest:
J. F. Campbell.
Chas. F. Hew.

Inventor:
George B. Webb,
by Drake & Co., Attys.

UNITED STATES PATENT OFFICE.

GEORGE B. WEBB, OF NEWARK, NEW JERSEY, ASSIGNOR OF ONE-HALF TO
PLUMB & MARCUS, OF SAME PLACE.

CIRCUIT-BREAKER FOR ELECTRIC CLOCKS.

SPECIFICATION forming part of Letters Patent No. 289,944, dated December 11, 1883.

Application filed May 29, 1883. (No model.)

To all whom it may concern:

Be it known that I, GEORGE B. WEBB, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Circuit-Breakers for Electric Clocks, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to break or to close an electric or galvanic circuit with greater precision than by the devices now in use, its application being more especially to the seconds-arbor of an electric clock, in which the time is transmitted from a central time-piece to any given number of indicators or dials.

Referring to the accompanying drawings, in which similar letters of reference indicate like parts in each of the several figures, Figure 1 is a side elevation, and Fig. 2 a plan illustrating the nature of my device. Figs. 3, 4, 5, and 6 are respectively plans and side views of certain parts thereof, which will be hereinafter more particularly described.

In said drawings, *a* represents a seconds-arbor of a clock carrying a pointer or hand, *b*. Upon said arbor is arranged a snail-wheel, *c*, with which engage spring-arms *d d'*, one of which is slightly longer than the other. Said spring-arms carry contact-points *e e'*, and are secured on a suitable bed-plate, *g*, by screws *h* or other devices. Said bed-plate is affixed to the clock-plate in an appropriate position. To the spring-arms are connected suitable con-

ducting wires, *i*, and said arms are properly insulated, as at *f*, by appropriate insulating material.

In Fig. 1 is shown the circuit-breaker as it stands at sixty seconds, the shorter of the two arms having fallen from projection on the snail-wheel or cam on the seconds-arbor, bringing the contact-points together with a sudden blow, the force that has gradually accumulated in the spring, with but a feeble exertion on the part of the seconds-arbor or its motor, being expended in one strong contact, as will be understood. At the next second the movement of the snail-wheel or its equivalent device allows the other arm to fall, when the contact is again broken and continues so while the wheel makes another revolution.

Having thus described my invention, what I claim as new is—

1. A circuit-breaker having therein two arms carrying contact-points, the contact thereof being made by the dropping of one of said arms, and a separation by the subsequent dropping of the other.

2. In combination, the snail-wheel working on the arbor *a*, and spring-arms *d d'*, engaging therewith and carrying contact-points, said spring-arms being separated by suitable insulating material, *f*, and connected with suitable conducting-wires, said parts being arranged and operating substantially as and for the purposes set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 22d day of May, 1883.

GEORGE B. WEBB.

Witnesses:

CHARLES H. PELL,
F. F. CAMPBELL.