

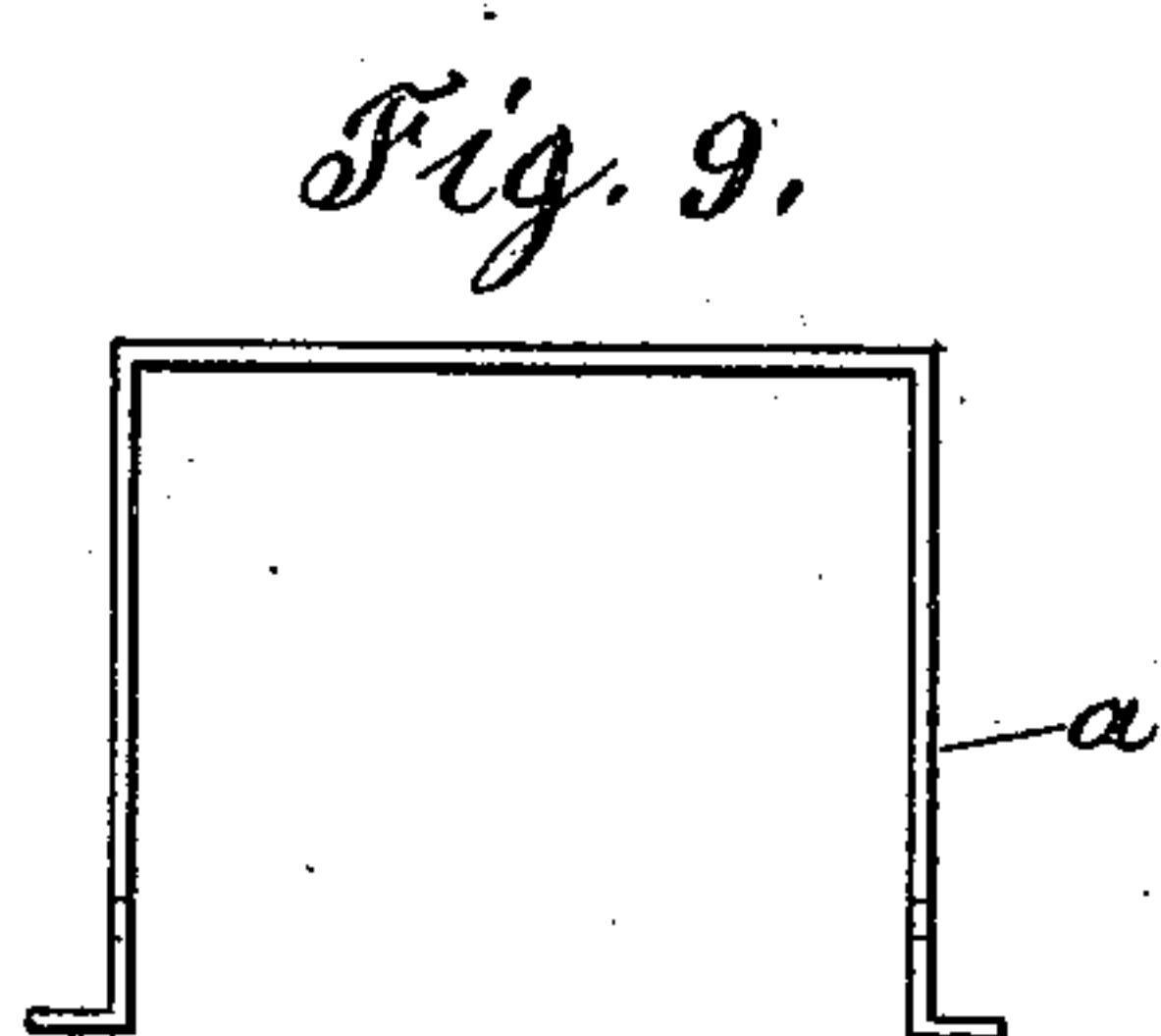
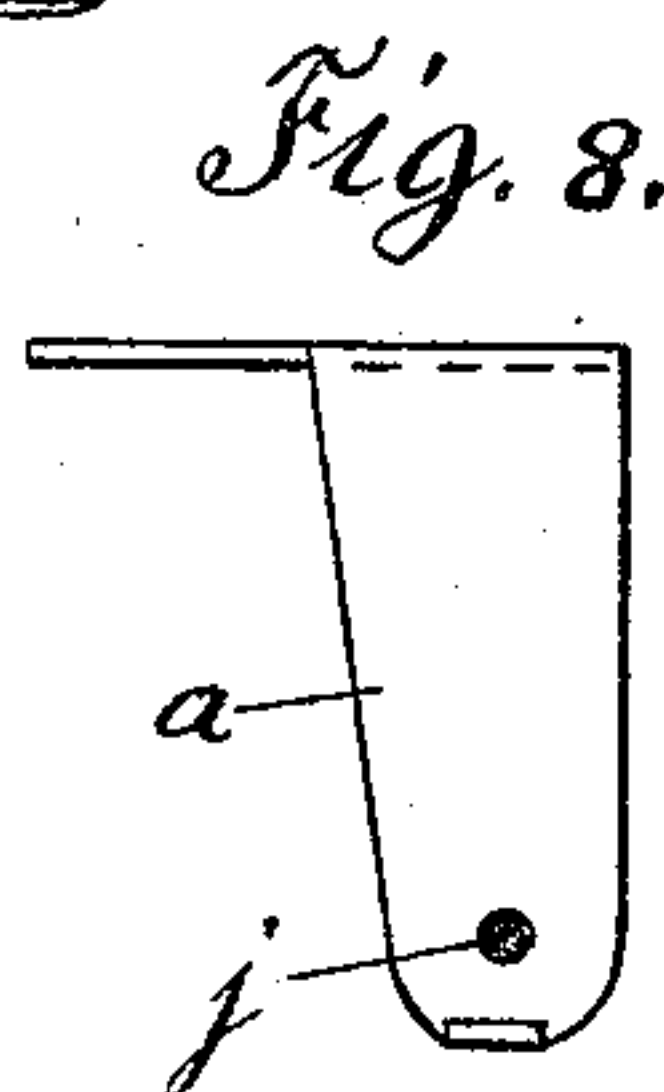
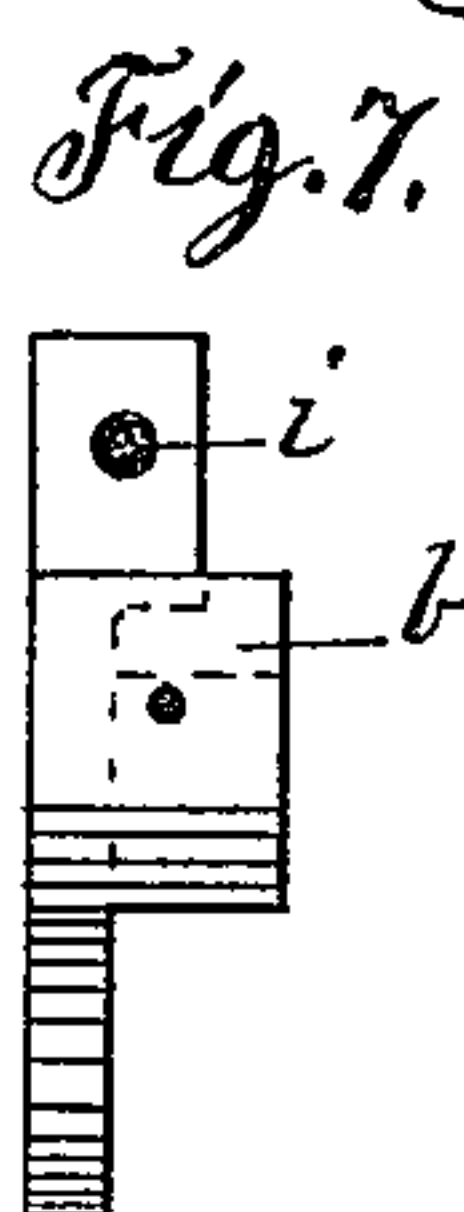
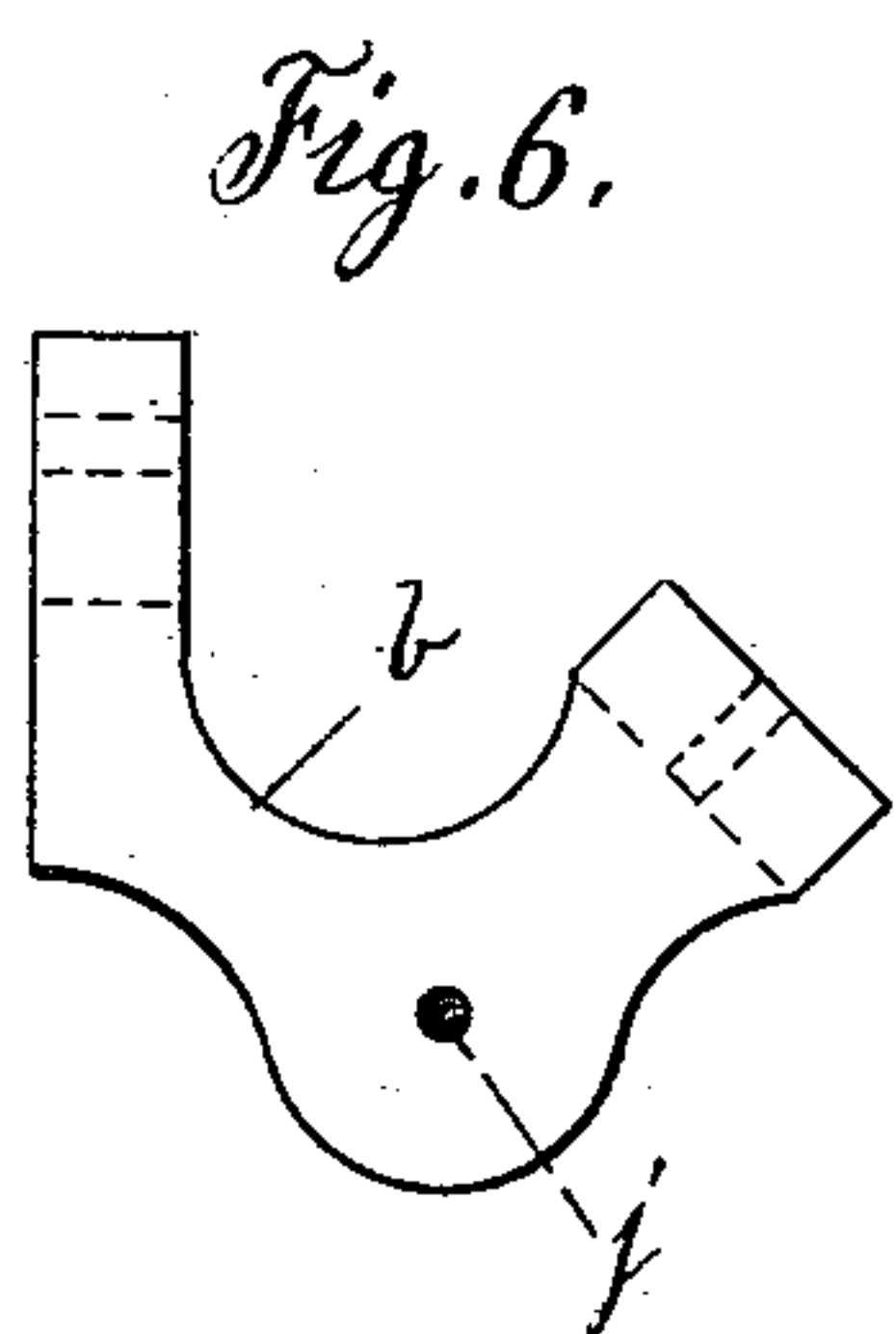
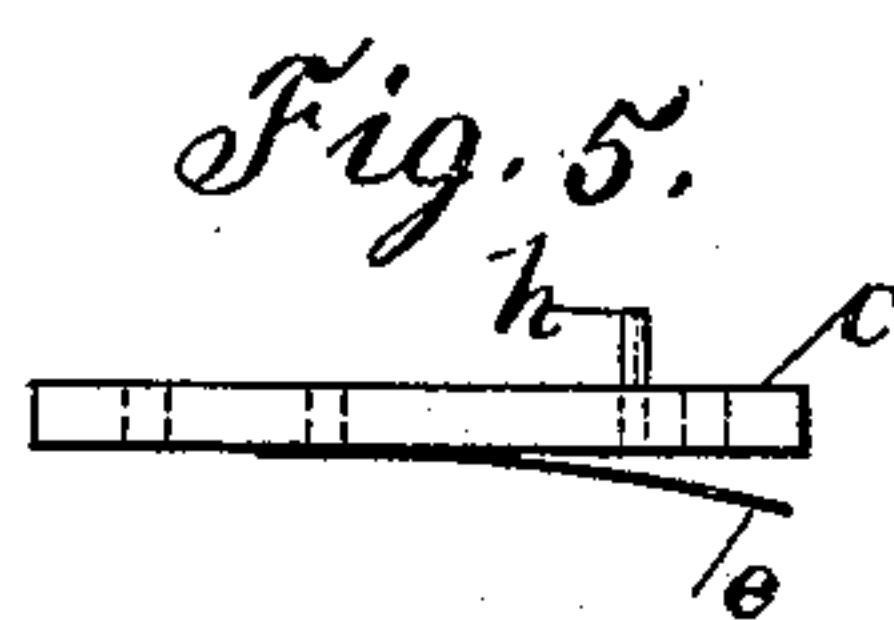
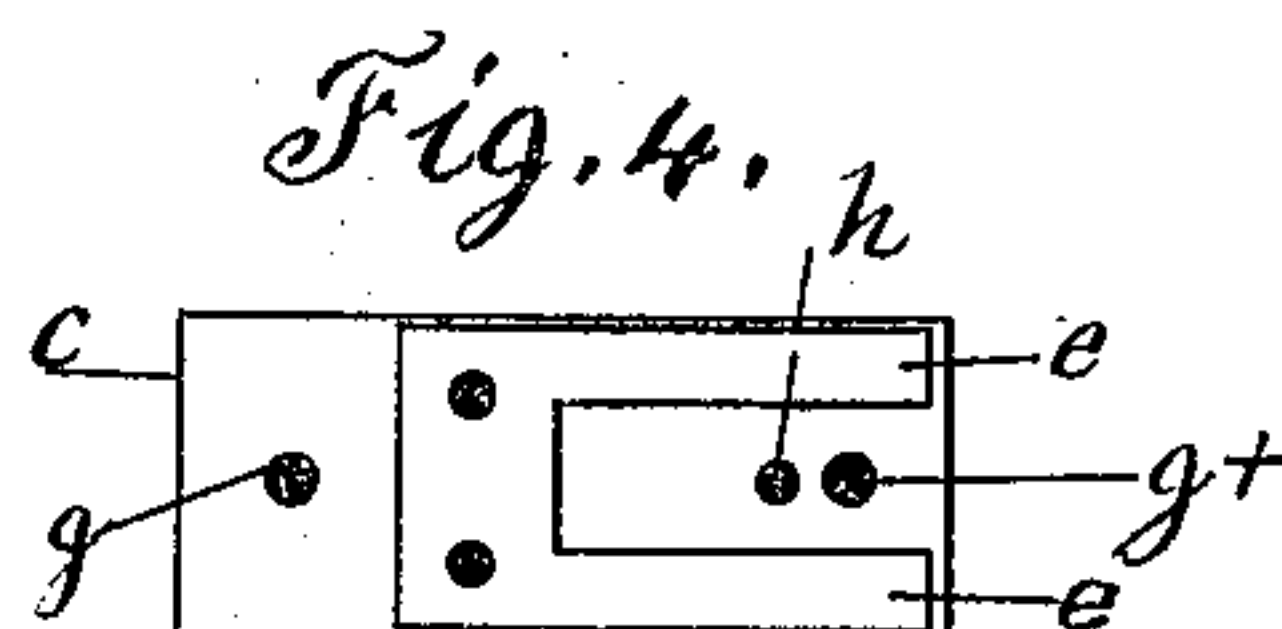
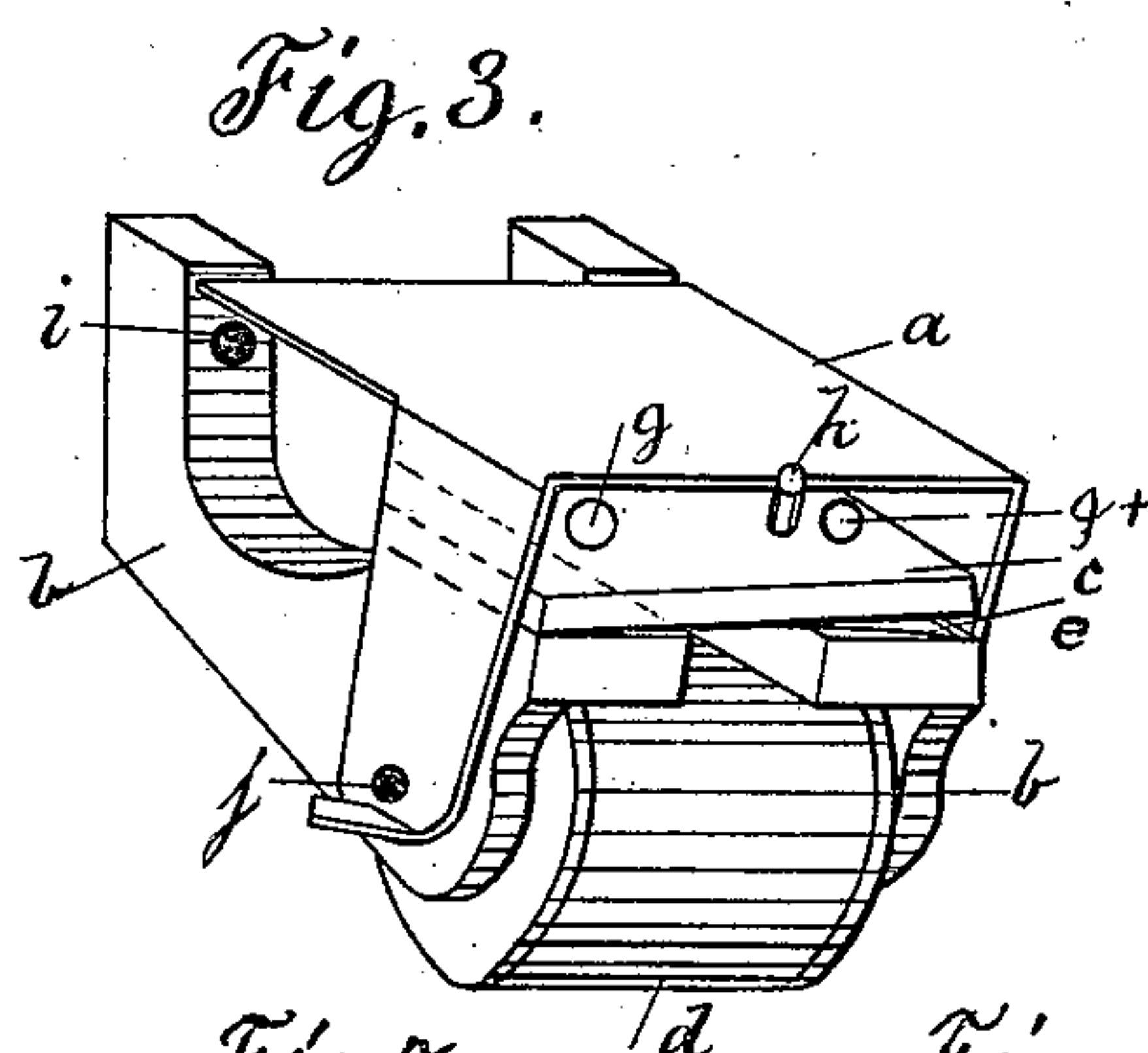
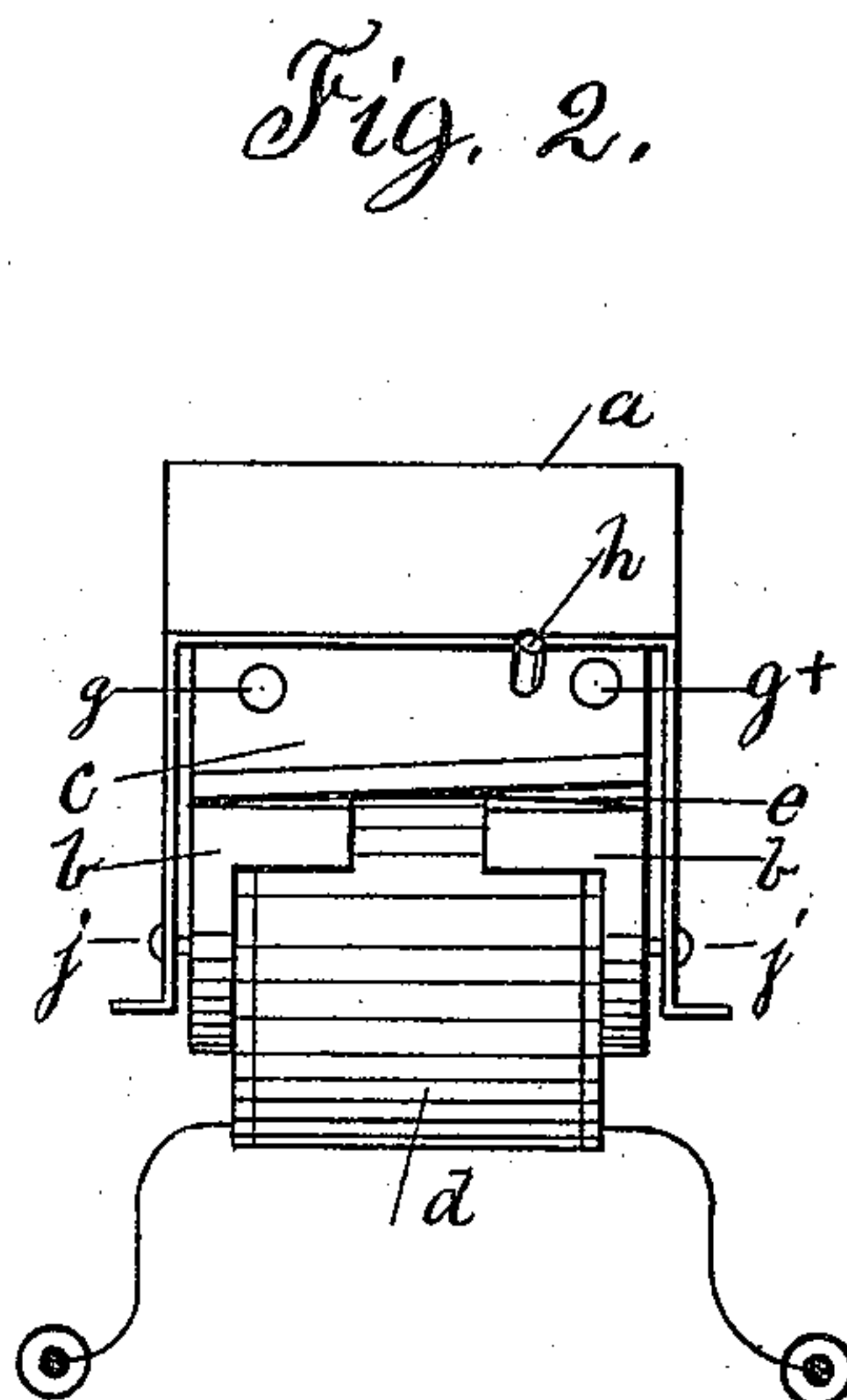
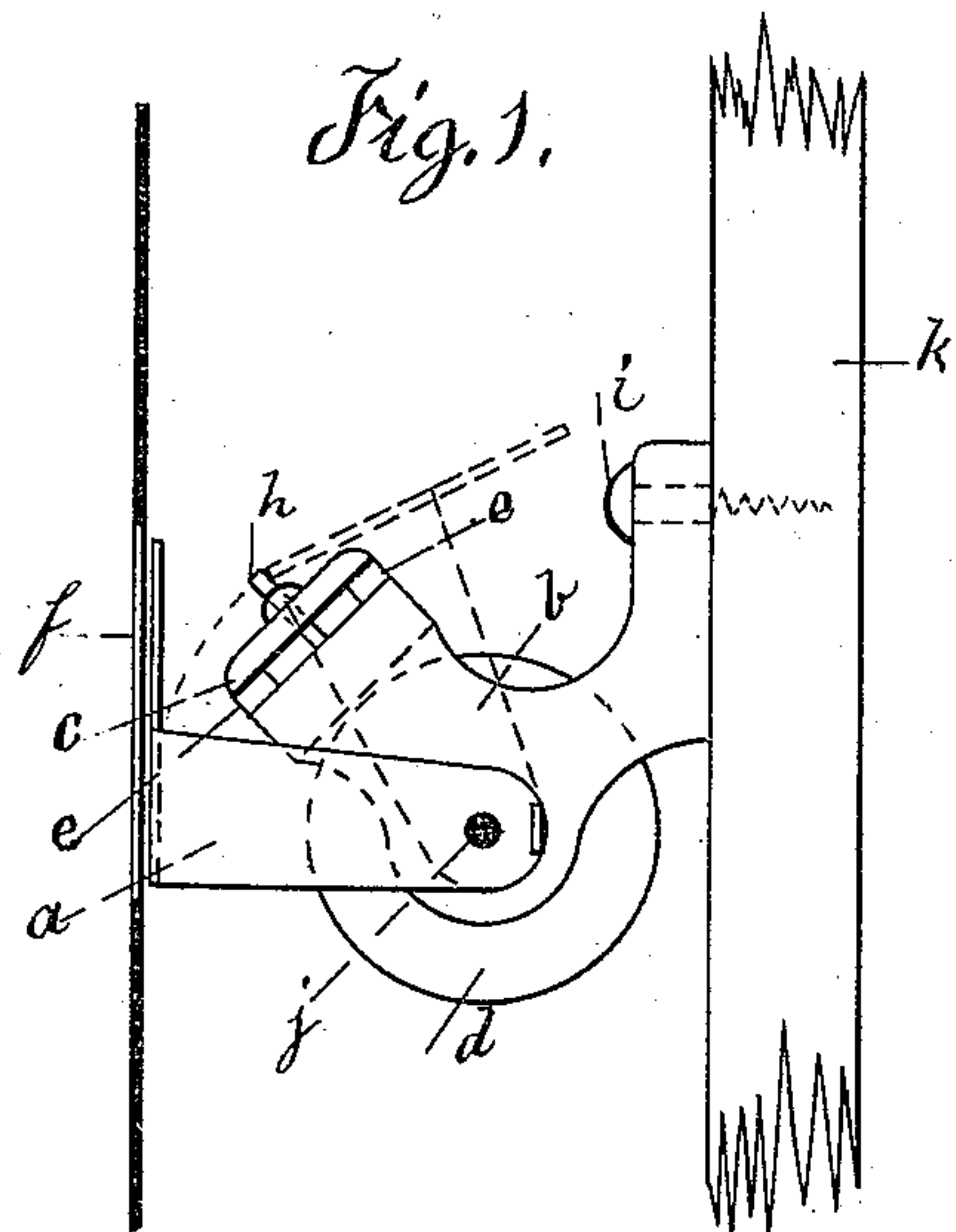
(No Model.)

P. SEILER.

ELECTRIC ANNUNCIATOR.

No. 355,791.

Patented Jan. 11, 1887.



Witnesses:

J. A. Gaste.

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Inventor:

Paul Seiler

By his Atty,

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UNITED STATES PATENT OFFICE.

PAUL SEILER, OF SAN FRANCISCO, CALIFORNIA.

ELECTRIC ANNUNCIATOR.

SPECIFICATION forming part of Letters Patent No. 355,791, dated January 11, 1887.

Application filed July 31, 1885. Serial No. 173,122. (No model.)

To all whom it may concern:

Be it known that I, PAUL SEILER, a resident of the city and county of San Francisco, State of California, have invented a novel and useful Electric-Annunciator Movement; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings.

10 My invention relates to the construction of a simple, efficient, and cheap device for annunciating figures or letters electrically.

The following description fully explains the nature of my said invention and the manner in which I proceed to construct, apply, and operate the same, the accompanying drawings being referred to by figures and letters.

Figure 1 represents a side elevation of the apparatus, showing one bracket and magnet-spool attached; the shield dropped, and dotted lines showing the shield up and ready to drop. Fig. 2 represents a front elevation of the same, showing the shield up, the brackets and magnet-spool attached, and the armature with escutcheon-pins and stop-pin and one flat spring. Fig. 3 is a perspective view of the apparatus ready for use. Fig. 4 is a plan view of the armature with the flat springs attached, and showing the holes for the escutcheon-pins and the stop-pin. Fig. 5 is an edge view of the same. Figs. 6 and 7 are two views of the brackets. Figs. 8 and 9 are two views of the shield.

35 The side pieces of the magnet-spool *d*, which I call "brackets" *b*, are cast with the spool and form one piece, and are attached by screws *i* to a case or frame, *k*, Fig. 1. The shield *a*, made of tin or sheet-brass or copper, is in the form of a square plate, with an arm on each side projecting downward and having the ends bent outward at a right angle, and in the lower end of each arm there is a hole for attaching it by a pin, *j*, to the brackets or sides of the magnet, Figs. 1, 3, 8, 9.

45 The construction and action of my armature *c* is peculiar and simple. It is placed between the shield and the magnet, and is made of flat iron oblong in form. At one end is a hole for

escutcheon-pin *g*, for holding and guiding 50 the armature, which is attached to one of the magnet-brackets, and passes loosely through the armature and allows it free movement at the same time as close as possible to the magnet. At the other end of the armature 55 escutcheon-pin *g*^x, also attached to one of the magnet-brackets, passes through the armature, and, being a little longer than pin *g*, permits the armature to come up higher at the end, where the stop-pin *h* is attached to it. Near 60 the center of the armature, on the under side, there is attached a thin sheet of brass or other non-magnetic metal, cut out in the center to one end and forming two flat springs, *e e*, Figs. 4 5. In front of the annunciator, in a frame 65 or case, is a sheet of glass or a slit or space, *f*, to expose the figure announced.

The peculiar construction of the magnet-spool *d*, which is cast with the sides or brackets *b* in one piece, together with the novel construction of the armature, enables me to utilize 70 the full force of the magnet, and to apply the armature in the most advantageous position. The armature is held without pivots or flexible sheet of metal by the escutcheon-pins *g g*^x, 75 the latter pin allowing greater upward movement of the armature at the end, where the stop-pin *h* is placed. The stop-pin holds the shield *a* and allows it to drop, when the flat springs *e e* throw back the armature the moment the current ceases. As in many other electric annunciators, the shield drops by gravity, and the armature, with its stop-pin holding the shield in position out of sight, is attracted to the magnet and allows the shield 85 to drop in sight.

The shield is constructed so as to approach as close as possible the glass or clear space *f* in the case or frame to expose the figure announced, and at the same time not to be shaded 90 or obscured by any other object. At the moment contact is made the armature allows the shield to drop.

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

An electric annunciator consisting of the magnet *d* and bracket *b*, cast in one piece,

and provided with the escutcheon-pins g g^x ,
the armature c , placed over pins g g^x , having
the non-magnetic springs e between it and
the magnet, and provided with the pin h on
5 top, and the shield a , pivoted to the brackets
 b and held suspended by the pin h , all con-
structed, arranged, and combined to operate
substantially as and for the purpose set forth.

In witness whereof I have hereunto set my
hand and seal.

PAUL SEILER. [L. s.]

Witnesses:

A. B. SMITH,
J. G. BLOOMER.