

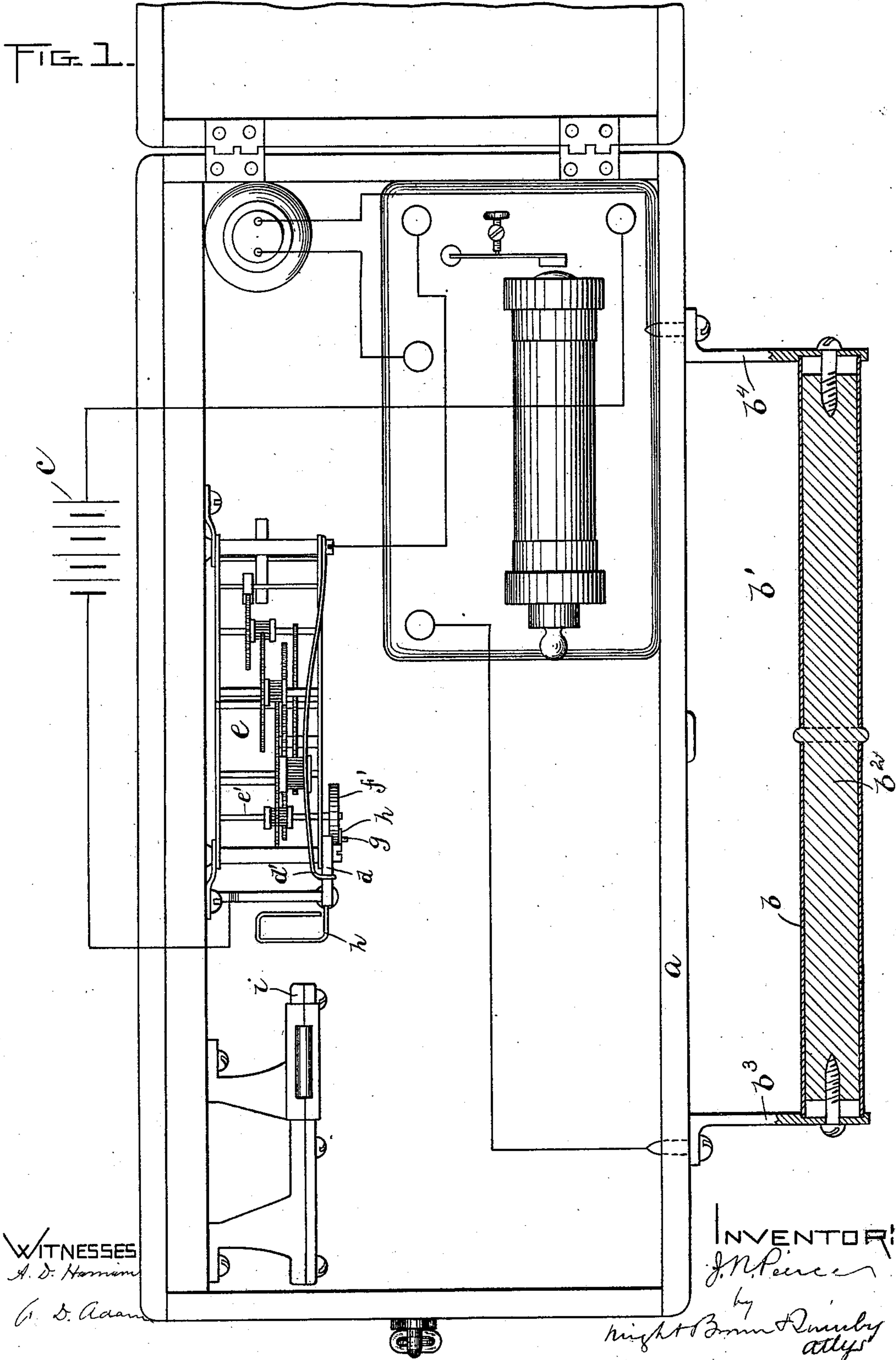
(No Model.)

2 Sheets—Sheet 1

J. N. PEIRCE.
COIN CONTROLLED ELECTRICAL APPARATUS.

No. 560,423.

Patented May 19, 1896.



(No Model.)

2 Sheets—Sheet 2.

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FIG. 2.

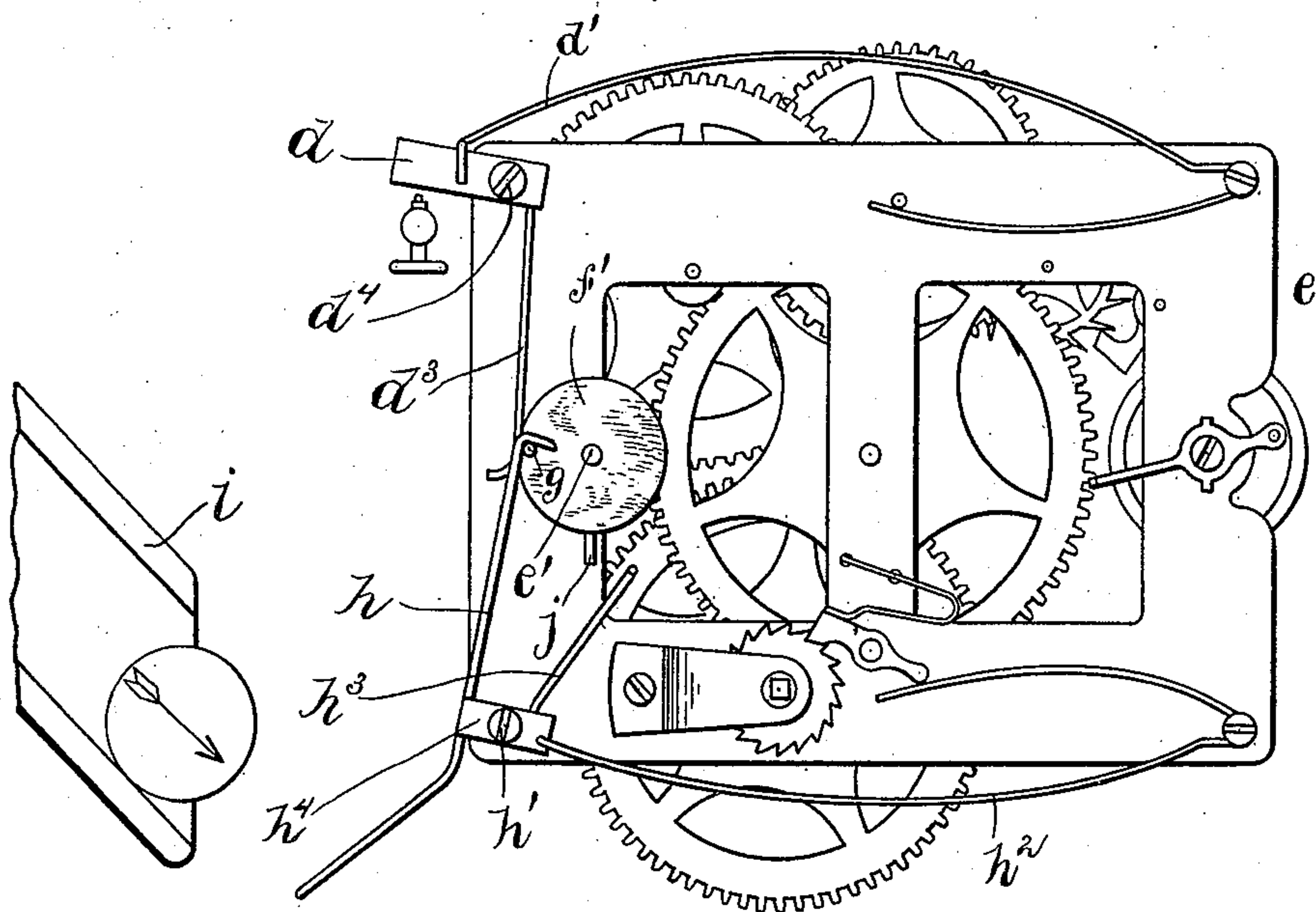


FIG. 3.

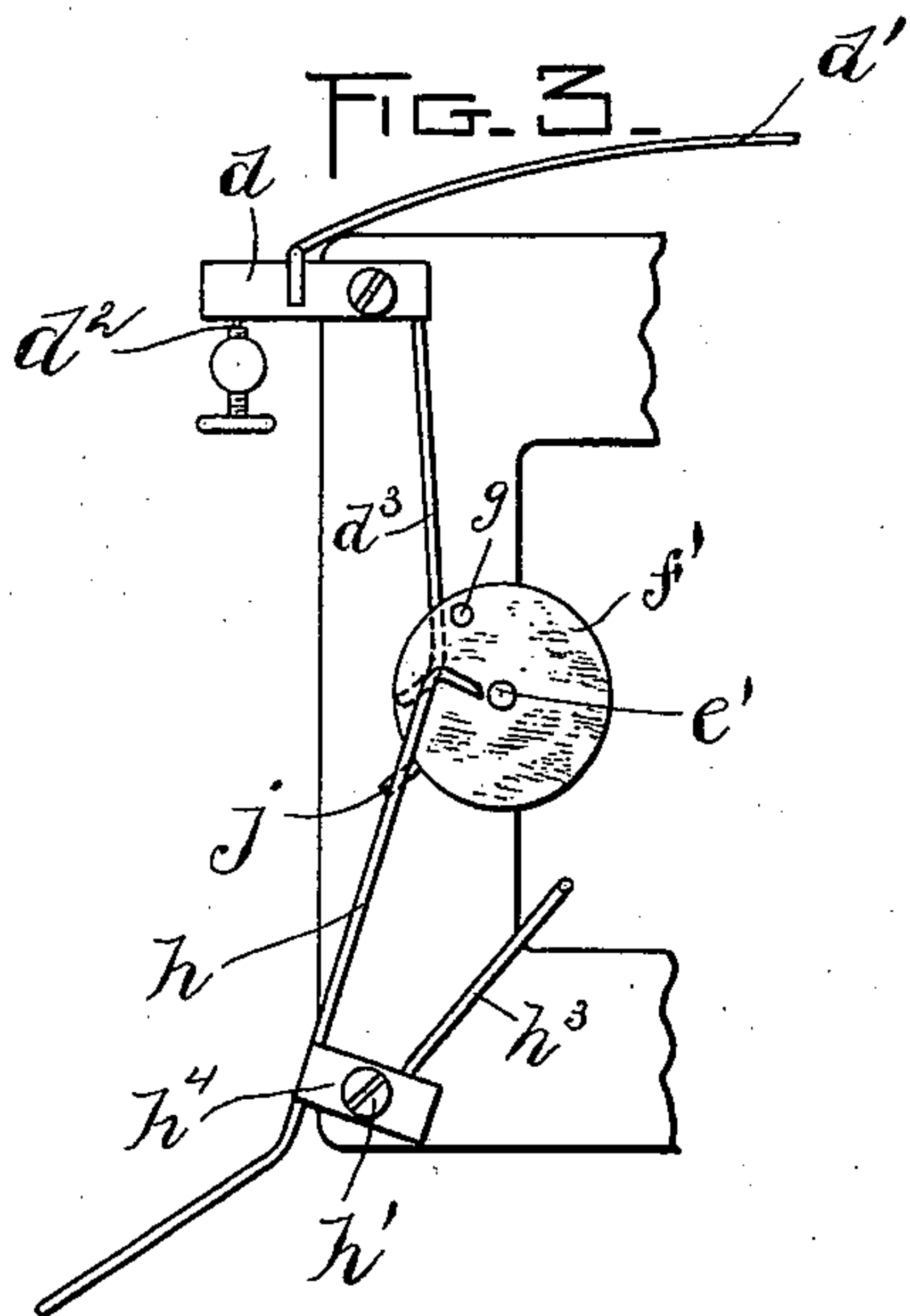
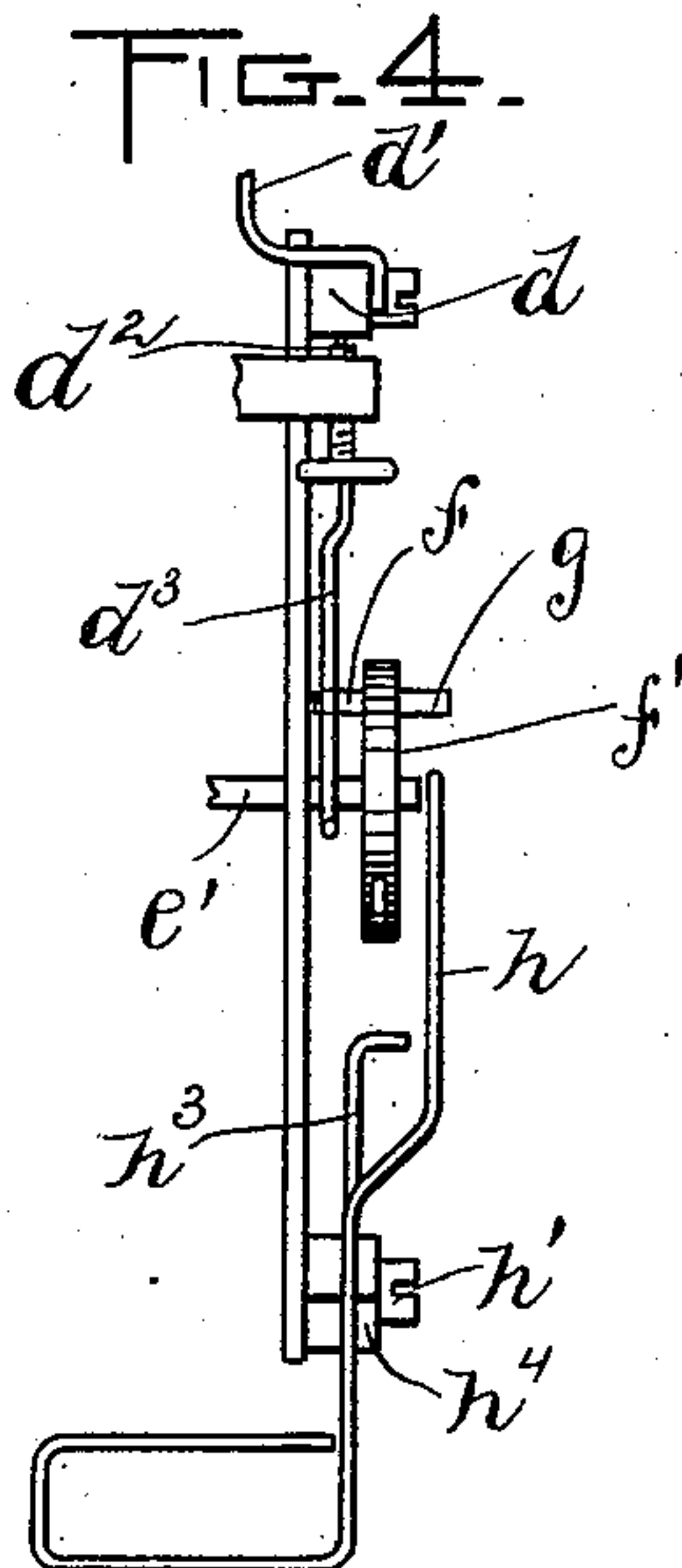


FIG. 4.



WITNESSES:

A. D. Harrison.

A. S. Adams.

INVENTOR:

J. N. Peirce
by Knight Brown & Denny
Atty.

UNITED STATES PATENT OFFICE.

JOHN N. PEIRCE, OF BOSTON, MASSACHUSETTS, ASSIGNOR TO THE NEW ENGLAND ELECTRO TONIC COMPANY, OF SAME PLACE.

COIN-CONTROLLED ELECTRICAL APPARATUS.

SPECIFICATION forming part of Letters Patent No. 560,423, dated May 19, 1896.

Application filed February 19, 1896. Serial No. 579,863. (No model.)

To all whom it may concern:

Be it known that I, JOHN N. PEIRCE, of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Coin-Controlled Electrical Apparatus, of which the following is a specification.

This invention relates to coin-controlled apparatus for sending a current of electricity through the human body; and it has for its object to provide simple and efficient apparatus whereby a person may, upon depositing a coin in a chute or receptacle and grasping a pair of electrodes, receive an electric current for a predetermined period, the circuit being broken at the expiration of said period.

The invention consists in the improvements which I will now proceed to describe and claim.

Of the accompanying drawings, forming a part of this specification, Figure 1 represents a top plan view of an apparatus embodying my invention, the cover of the casing being displaced to expose the apparatus within the casing. Fig. 2 represents a side view of a portion of the apparatus. Fig. 3 represents a side view, and Fig. 4 an edge view, of a part of the mechanism shown in Fig. 2.

The same letters of reference indicate the same parts in all the figures.

In the drawings, *a* represents a casing, and *b* *b'* represent electrodes secured to the exterior of the casing.

c represents a battery or other source of electricity, which is here represented diagrammatically for convenience, although in practice it will be located in the bottom of the casing. One pole of the battery is in electrical communication, through suitable intermediate connections, with the electrode *b* and the other pole with the electrode *b'*, so that when the electrodes are grasped in the hands of a person, one hand bearing on one electrode and the other on the other, the circuit will be completed through the body of the person grasping the electrode. Said connections may be of any suitable nature and need not here be particularly described further than to state that they include a movable contact-arm *d*, which is pivoted at *d*⁴ to a fixed support and is normally held by a spring

d' in the position shown in Fig. 3, said arm bearing upon a fixed contact-piece *d*², which also forms a part of the said connections. When the parts *d* and *d*² are in contact with each other, the apparatus is operative, the electrodes being in electrical connection with the battery, so that a person grasping them will complete the circuit and receive a current. When the parts *d* and *d*² are separated, as shown in Fig. 2, the apparatus is inoperative, the electrical connection between the two electrodes being broken.

e represents a time mechanism, which may be of any suitable construction, and includes a shaft *e'*, which is rotated at a comparatively slow rate when the mechanism is in operation, preferably once in a minute. The shaft *e'* has a projection *f*, which is here shown as a pin inserted in a disk *f'*, affixed to the shaft *e'*, although said projection may be connected with the shaft in any other suitable way, the projection being revolved by the shaft when the latter is in motion.

*d*³ represents an extension of the contact-piece *d*, said extension projecting into the path of the projection *f*, the relative arrangement of the extension *d*³ and projection *f* being such that when the projection reaches a given point in its revolution it strikes the extension *d*³, displacing the latter, with the contact-arm *d*, breaking the connection between the two electrodes, as shown in Fig. 2.

g represents another projection carried by the shaft *e'*, said projection being here shown as a continuation of the pin which composes the projection *f*, but extending from the opposite side of the disk *f'*.

h represents a detent, which is pivoted at *h'* to a fixed support, preferably the frame of the clock-movement, and is normally held by a spring *h*² in position to engage the projection *g*, when the rotation of the shaft brings the projection *f* into position to displace the contact-arm *d*, as shown in Fig. 2.

i represents a coin-chute affixed to the casing and communicating at its upper end with a slot (not shown) formed in the cover of the casing, the lower end of said chute being arranged to direct a coin against the lower portion of the detent *h*. The impact of a coin against said portion of the detent retracts

the upper portion from engagement with the projection *g*, thus releasing the shaft *e'* and permitting the time mechanism to operate.

From the foregoing it will be seen that when
5 a coin is dropped into the chute it displaces the detent, whereupon the clock mechanism operates and moves the projection *f* away from the extension *d*³ of the contact-arm *d*, permitting the latter to make contact with
10 the contact-piece *d*². The apparatus is now operative, and the operator may receive a current by grasping the electrodes, the current continuing to flow until the revolution of the projections *f* and *g* brings them to the
15 point where they respectively engage the extension *d*³ and detent *h*, the contact-arm *d* being thus displaced and the time mechanism stopped at the same time, so that the apparatus remains inoperative until another coin
20 is inserted in the chute.

To prevent the detent from reengaging the projection *g* after the coin has dropped and before the projection *g* has made a revolution, I provide the shaft *e'* with another projection, *j*, here shown as a pin inserted in the
25 periphery of the disk *f'*, the detent *h* being provided with an arm *h*³, here shown as connected with the pivot-block *h*⁴, which supports the detent. The arm *h*³ is arranged to
30 be moved against the projection *j* just as the detent *h* is withdrawn from engagement with the projection *g*, the arm *h*³ by its contact with the projection *j* giving the shaft *e'* a partial rotation, sufficient to move the projection *g* out of the path of the detent, so
35 that when the detent returns to its operative position it will not encounter the projection *g* until the latter has made a complete revolution.

40 The electrodes *b b'* are here shown as metal tubes insulated from each other by a wooden core or plug *b*². The outer ends of the tubular electrodes are in contact with metallic frames or brackets *b*³ *b*⁴, which constitute

parts of the electrical connections above 45 mentioned.

I claim—

1. An apparatus of the character specified, comprising a casing, electrodes on the exterior of the casing, a battery or other source 50 of electricity, and connections between it and the electrodes, said connections including a movable contact-arm adapted to be displaced to break the connection between the electrodes, a time mechanism having a re- 55 volving projection arranged to displace said contact-arm when at a given point in its revolution, a detent arranged to stop the time mechanism when the contact-arm is displaced, and a coin guide or chute arranged 60 to direct a coin against said detent to displace the latter and cause the release of the current-closing arm during a revolution of said projection.

2. An apparatus of the character specified, 65 comprising a time mechanism having projections on one of its shafts, a movable contact-arm arranged to be displaced from its operative position by one of said projections, a 70 biased detent which normally stands in position to engage another of said projections and thereby stop the time mechanism, said detent being adapted to be displaced by a coin, and an arm connected with the detent and arranged to partially rotate the said shaft 75 when the detent is displaced, and thereby move the detent-controlled projection forward out of the path of the detent while the latter is displaced.

In testimony whereof I have signed my 80 name to this specification, in the presence of two subscribing witnesses, this 17th day of February, A. D. 1896.

JOHN N. PEIRCE.

Witnesses:

A. D. HARRISON,
A. D. ADAMS.