

(No Model.)

2 Sheets—Sheet 1.

J. W. PATTERSON.  
COIN ACTUATED BOX.

No. 438,174.

Patented Oct. 14, 1890.

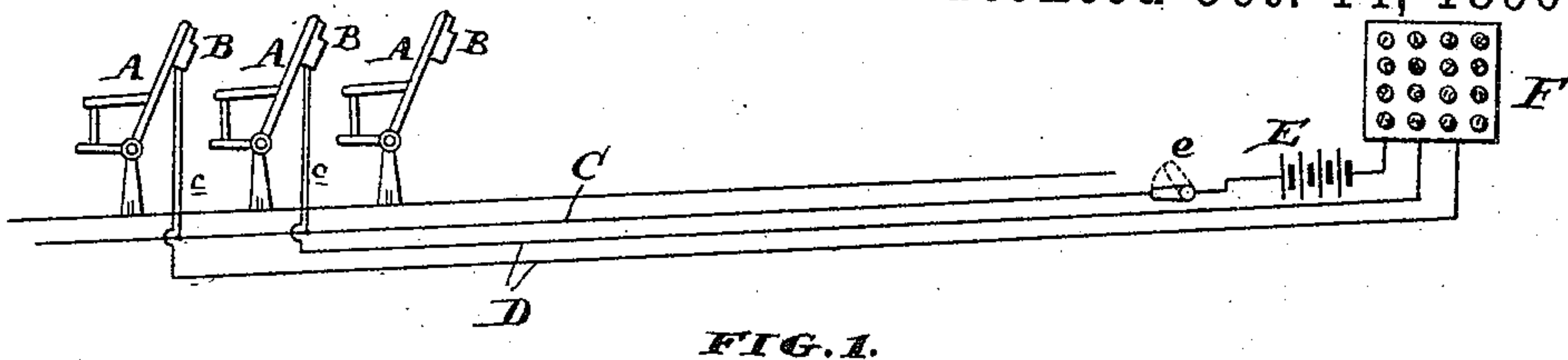


FIG. 1.

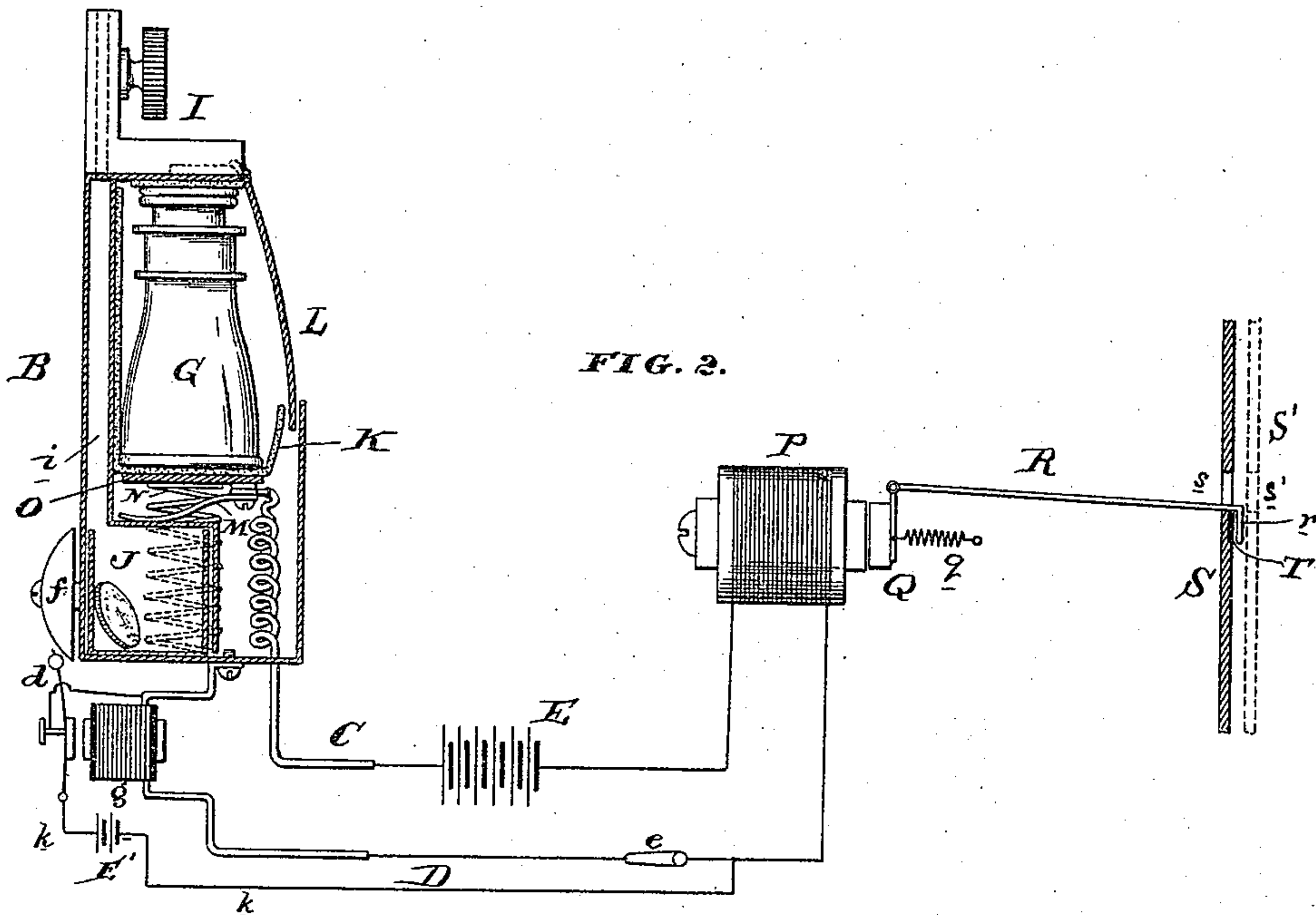


FIG. 2.

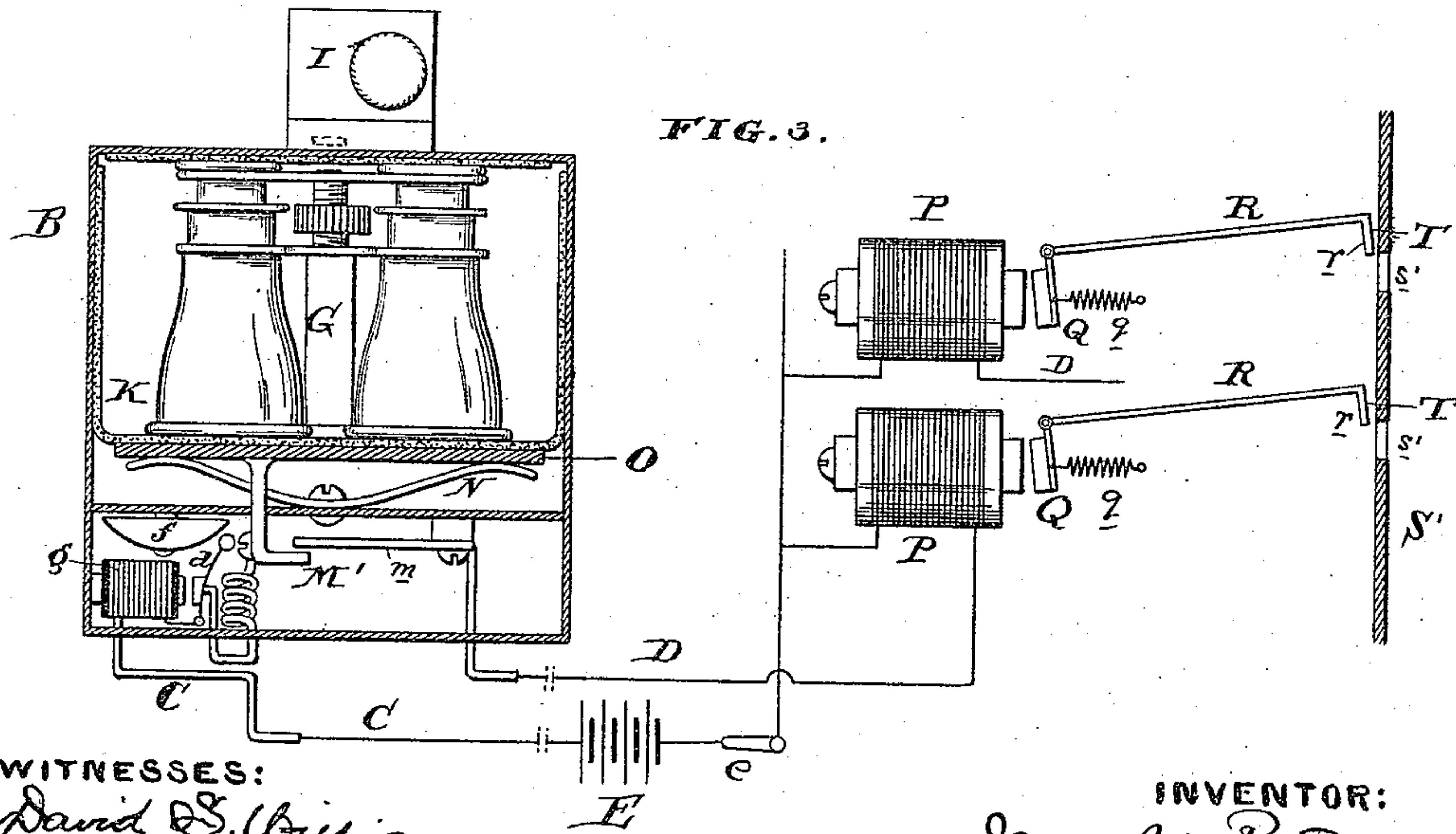


FIG. 3.

WITNESSES:

David S. Williams  
Hemp Drury

INVENTOR:

James W. Patterson  
By his atty  
*[Signature]*

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2 Sheets—Sheet 2.

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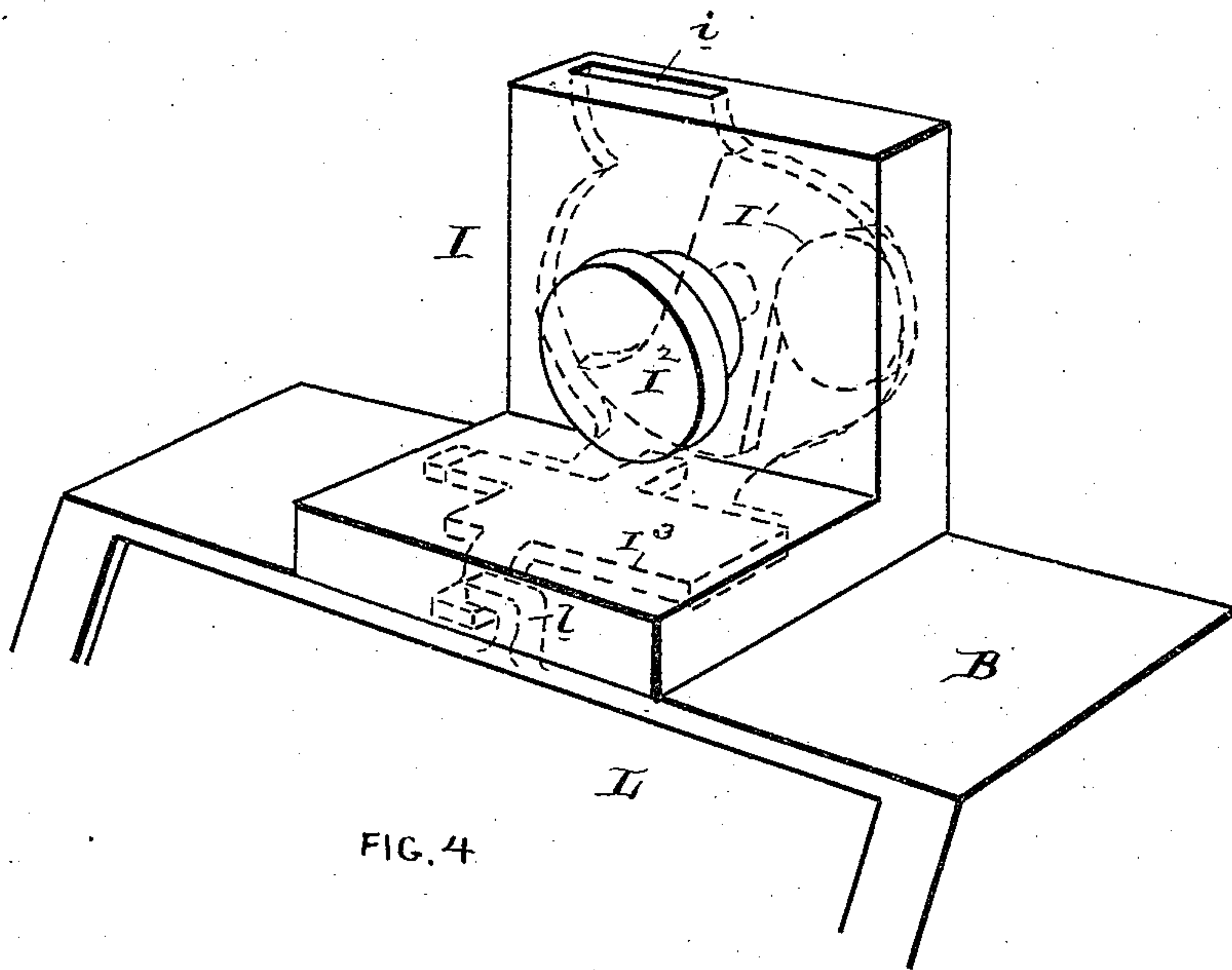


FIG. 4

WITNESSES

Henry Dwyer  
Walter Samaras

INVENTOR

James W. Patterson  
By his atty

*[Signature]*



# UNITED STATES PATENT OFFICE.

JAMES W. PATTERSON, OF NEW YORK, N. Y.

## COIN-ACTUATED BOX.

SPECIFICATION forming part of Letters Patent No. 438,174, dated October 14, 1890.

Application filed September 5, 1889. Serial No. 323,062. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES W. PATTERSON, of the city and county of New York and State of New York, have invented an Improvement in Electric Detecting Apparatus for Coin-Actuated Boxes, of which the following is a specification.

My invention has reference to detecting devices for coin-actuated boxes, and especially with reference to boxes employed in theaters for dispensing opera-glasses and other articles upon the deposition of a given piece of money; and it consists of certain improvements which are fully set forth in the following specification, and shown in the accompanying drawings, which form a part thereof.

Heretofore it has been the practice in dispensing opera-glasses in theaters to attach a glass by means of a heavy chain to the box, so that the person using the glasses could not readily carry them from the theater. The use of a chain, however, was found decidedly objectionable, and many persons would not use the glasses on account of the conspicuous use of the chain.

The object of my invention is to obviate the employment of any connecting device between the opera-glasses and the box, and thereby enable the person who has deposited the coin to have the free use of the glasses during the performance, and without the slightest indication to others that the said glasses were borrowed.

My invention comprehends the employment of suitable electric sight or alarm indicating device or devices to be used separately or together, and which indicate when the glasses are removed from the box, and also, if desired, when they are returned, so that if at the end of the performance the glasses are not returned that fact will be at once indicated, and thereby the theft of the glasses readily prevented.

In carrying out my invention I provide all boxes with a circuit maker and breaker or switch, which is actuated by the insertion or removal of the opera-glasses with reference to the box. This circuit maker and breaker in turn controls an electric circuit, including an alarm-bell indicator at the box, and also leading to a sight-indicator located within the office or some place where it can readily

be observed, and which circuit also includes the electric battery and electro-magnet of the said indicators. When the glasses are placed within the box, the circuit will be so controlled as to operate in connection with the electro-magnet of the indicators to indicate whether or not the glasses have been replaced within the box. This may be accomplished either with an open or closed circuit. The alarm-bell indicator at the box may be used alone, if desired, and while it would have its circuit controlled by the insertion or removal of the glasses this circuit may also be controlled from the office to prevent ringing of the bells during the performance.

In the drawings, Figure 1 is a diagram illustrating my invention as applied to a theater. Fig. 2 is an enlarged diagram of my apparatus with the box in section showing the details of construction. Fig. 3 is a similar view of same, showing a modified arrangement of circuits; and Fig. 4 is a perspective view of the coin-actuated lock.

A are the seats.

B are the coin-actuated boxes.

C is the outgoing circuit leading to the boxes by branch conductors *c*.

*e* is the circuit-closer in circuit C.

E is an electric battery, also in the circuit C.

D are the return-circuits from the boxes, and F is the sight-indicator. The particular construction of the box B, so far as the coin-actuated mechanism is concerned, is immaterial to the particular invention involved in this application; but that shown consists of the box proper provided with a sliding door L, locked when in a raised position by the coin-actuated lock I, and having a coin-receptacle J, to which the passage *i* leads from the coin-actuated lock. Within the box is a movable bottom O, pressed upward by springs N, and the interior of the box is lined with soft felt, plush, or other suitable material K.

The coin-actuated lock is clearly shown in Fig. 4. It will be seen that the coin is deposited in the slot *i* and is caught by the arm I', rotated by the thumb-wheel I<sup>2</sup>, and by the rotation of this piece I' the coin is forced down between the edge of the slotted frame I and the rearward projection of the sliding lock I<sup>3</sup>, the forward edge of which catches



under the hooked end *l* of the door *L*. This action releases the door *L*, and it drops down, exposing the opera-glasses.

*G* are the opera-glasses, which are placed between the top of box and the movable bottom or floor *O*.

*M* is a circuit-closing switch, actuated by the movable bottom to complete the circuit through the box and hence through the circuit *C D*. When the opera-glasses *G* are in place, the magnet *P* is energized, the armature *Q* is attracted, and through the arm *R* thereof the plate *r* is thrown down over the number or mark *T* on the plate *S*. This hides the number or mark from view, and thereby indicates that the box corresponding to that number contains the opera-glasses. If the glasses are not replaced, the circuit-breaker *M* leaves the circuit open, and the spring *q* causes the plate *r* to be raised, exposing the number corresponding to the box from which the glasses have been so removed.

In place of the number or mark *T* being upon the stationary plate *S* it may be upon the front of the plate *r*, and when said plate is thrown up by the removal of the glasses it may come before a perforation *s'* in a plate *S'*, and thus indicate the removal of the opera-glasses. Such construction as that shown in Fig. 2 employs the normally-closed circuit. In the construction shown in Fig. 3 we have the same elements; but in this case the circuit maker and breaker is marked *M' m*, and is actuated by the movable bottom or floor *O* to open the circuit when the glasses are in position in the box. In this case when the glasses are removed the circuit is completed and the electro-magnet *P* is energized. This attracts the armature *Q*, depressing the arm *R*, and its plate *r* causes the mark or number *T* upon the front of the said plate *r* to be moved down in front of the hole *s'* in the plate *S'* of the indicator, thereby bringing to view a number corresponding to the number of the box from which the opera-glasses have been removed. The circuit *C* leads to all of the various boxes and to one terminal of each of the electro-magnets *P*; but each of the boxes has its own individual wire leading to the corresponding individual magnet *P*, with which it connects at the other terminals.

The particular coin-actuated mechanism is immaterial and may be greatly varied, as that relates exclusively to the particular means for controlling the door *L* of the box.

So far I have described the employment of a sight-indicator at a central station or in the office. I will now refer to the alarm-indicator at the box. Each box *B* may be provided upon the inside with an electric bell of any ordinary construction, or such bell may be in the vicinity of the box. The bell proper is marked *f*, the hammer-switch and armature is marked *d*, and the actuating-magnet is marked *G*. In the construction shown in Fig. 2 the magnet *g* is in the circuit *D*, and when the current is passing the mag-

net holds the switch-armature *d* open, preventing the closing of the local circuit *k*, which includes the battery *E'*. If, now, the switch *M* should be opened by removal of the glasses, the magnet *g* is demagnetized and the switch *d* closes the local circuit *k*, allowing the battery *E'* to energize the magnet and operate the hammer to rapidly strike the bell *f*. In the case shown in Fig. 3 the magnet *g* is in the circuit *C* and is not energized until the switch *M' m* is closed by the removal of the glasses. As the bells must not operate during the performance, it is necessary to open the hand-switch *e* to cut off the current; but when the performance is through the closing of the switch *e* causes the alarms to begin ringing in all of the boxes where the glasses have not been returned, and also causes the sight-indicator to point out at once from what boxes the glasses have been removed. It is evident that the alarm-bell indicators may be used without the sight-indicators, or vice versa, but it is more desirable that they may be used together. The direct object of the alarm-indicators is to call the attention of the borrower that the glasses have not been replaced, and also to direct the attention to persons in the vicinity to the fact that the glasses have not been replaced. The alarm at the boxes also acts to direct the attention of the person in charge and enable him to readily discover any theft.

While the article to be loaned is shown as a pair of opera-glasses it is to be borne in mind that the article to be loaned is not the invention claimed. Hence my improvement may be employed with the boxes, whether they are made to contain glasses, fans, or any other article whose use is only temporary.

My invention has more particular reference to the electrical devices for indicating the removal or replacement of the glasses or other articles.

I do not limit myself to any particular electric mechanism for accomplishing the results herein set out, as any electrician may provide numerous modifications of the devices herein disclosed excellently adapted to perform the same function.

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

1. The combination of a series of seats arranged upon a floor, coin-actuated boxes for said seats, secured to the back thereof and provided with circuit-controlling switches, an electric indicator located at a distance from said boxes, electric circuits from the boxes to the electric indicator arranged below the seats, and a battery or generator in said circuits.

2. The combination of a series of seats arranged upon a floor, coin-actuated boxes for said seats, provided with circuit-controlling switches, an electric indicator located at a distance from said boxes, electric circuits from the boxes to the electric indicator arranged



below the seats, a battery or generator in said circuits, and a switch to cut the battery or generator into or out of circuit.

3. The combination of a support for opera-  
5 glasses or other article, having a coin-actu-  
ated lock for controlling the removal of the  
article, a switch controlled by the removal of  
the article from the support and protected  
against movement except by the removal of  
10 the opera-glasses or other article, an electric  
circuit controlled by the switch, an electric  
bell in the circuit adjacent to the support,  
and a source of electric supply.

4. The combination of a support for opera-  
15 glasses or other article, having a coin-actu-  
ated lock for controlling the removal of the  
article, a switch controlled by the removal of  
the article from the support, an electric cir-  
cuit controlled by the switch, an electric bell  
20 in the circuit adjacent to the support, a hand-  
switch located at a distance from the support  
and adapted to open or close the electric cir-  
cuit, and a source of electric supply.

5. The combination of a series of theater-  
25 seats, a series of coin-actuated boxes for con-  
taining opera-glasses or other articles, and  
provided with a single electric switch actu-  
ated only when the opera-glasses or article is  
placed in the box, an electric indicator for all  
30 of the several boxes located at one and dis-  
tant place in the theater, a source of electrical  
energy common to the said electrical indica-  
tor and several boxes, circuits leading from  
the several switches of the various boxes and  
35 including the source of electrical energy and  
electrical indicator, and an electric bell or  
alarm arranged at each of the coin-actuated  
boxes and controlled by the electric switches  
arranged within the said coin-actuated boxes.

40 6. The combination of a coin-actuated box

B, having a door L, a movable support or floor  
O, for the opera-glasses or other article G, a  
coin-actuated lock I, for locking the cover L  
in place, a coin-box and receiving passage-way  
arranged back of the movable floor or support, 45  
a spring to press the movable floor or support  
upward, so as to maintain the opera-glasses  
or other article positively between the top  
portion of the box and the movable platform  
or support, a switch actuated by the movable 50  
support, an electro-magnetic indicator, a cir-  
cuit including the electro-magnetic indicator  
and the switch operated by the movable floor  
or support, and a source of electric power.

7. The combination of a coin-actuated box 55  
B, having a door L, a movable support or floor  
O, for the opera-glasses or other article G, a  
coin-actuated lock I, for locking the cover L  
in place, a coin-box and receiving passage-way  
arranged back of the movable floor or support, 60  
a spring to press the movable floor or support  
upward, so as to maintain the opera-glasses  
or other article positively between the top  
portion of the box and the movable platform  
or support, a switch actuated by the movable 65  
support, an electro-magnetic indicator, a cir-  
cuit including the electro-magnetic indicator  
and the switch operated by the movable floor  
or support, a source of electric power, and an  
electric bell or signal arranged close to the 70  
coin-actuated box and controlled by the  
switch actuated by the movable support or  
floor.

In testimony of which invention I have  
hereunto set my hand.

JAMES W. PATTERSON.

Witnesses:

DANIEL J. AUGUSTINE,

CHARLES S. PATTERSON.