

No. 773,987.

PATENTED NOV. 1, 1904.

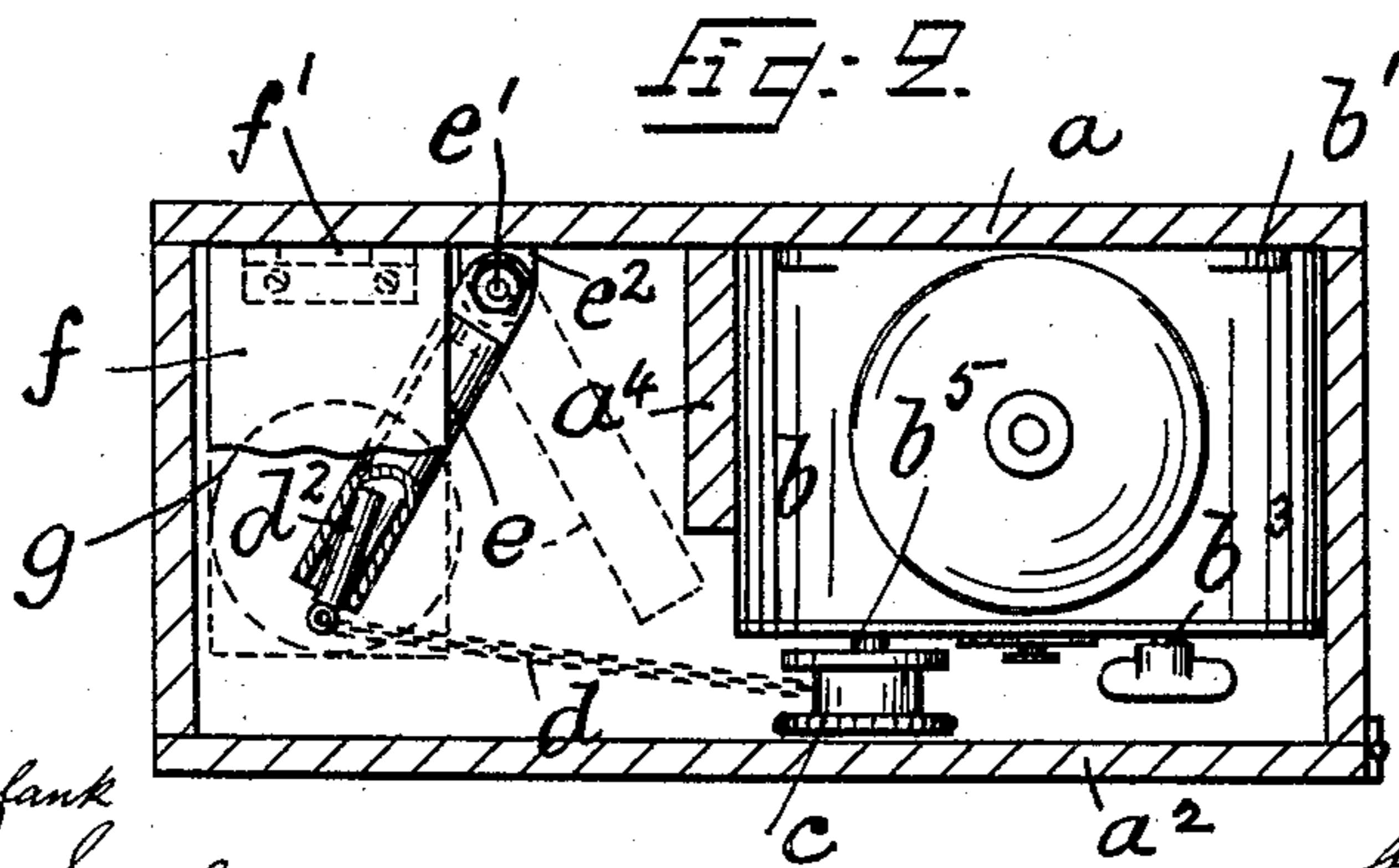
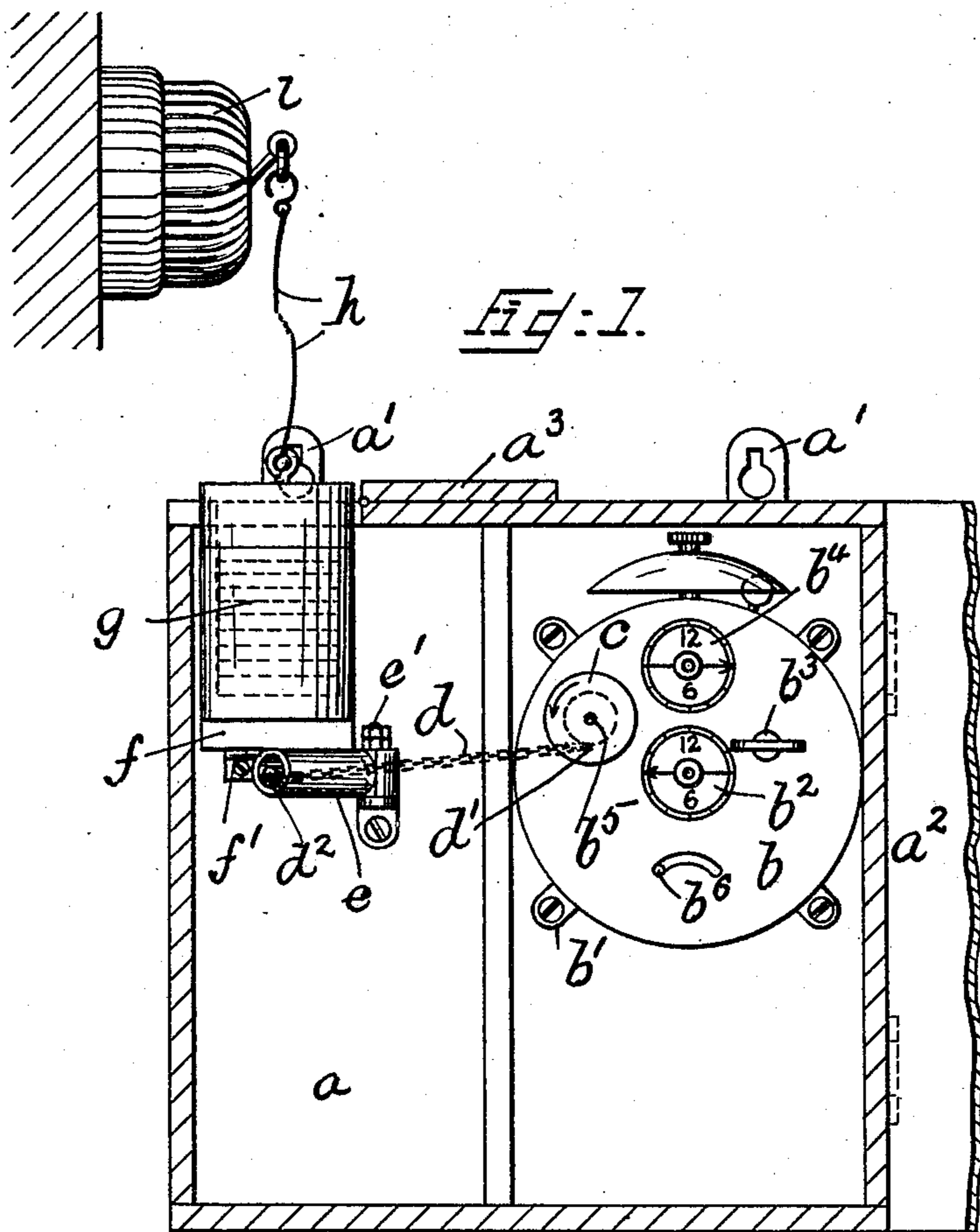
C. RUSS.

TIME CONTROLLING MECHANISM FOR GAS COCKS.

APPLICATION FILED MAY 28, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



Witnesses  
George G. Schoenlank  
William B. Smith

Inventor  
Charles Russ  
by H. van Oldemuel  
Attorney

C. RUSS.

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APPLICATION FILED MAY 28, 1904.

NO MODEL.

2 SHEETS—SHEET 2.

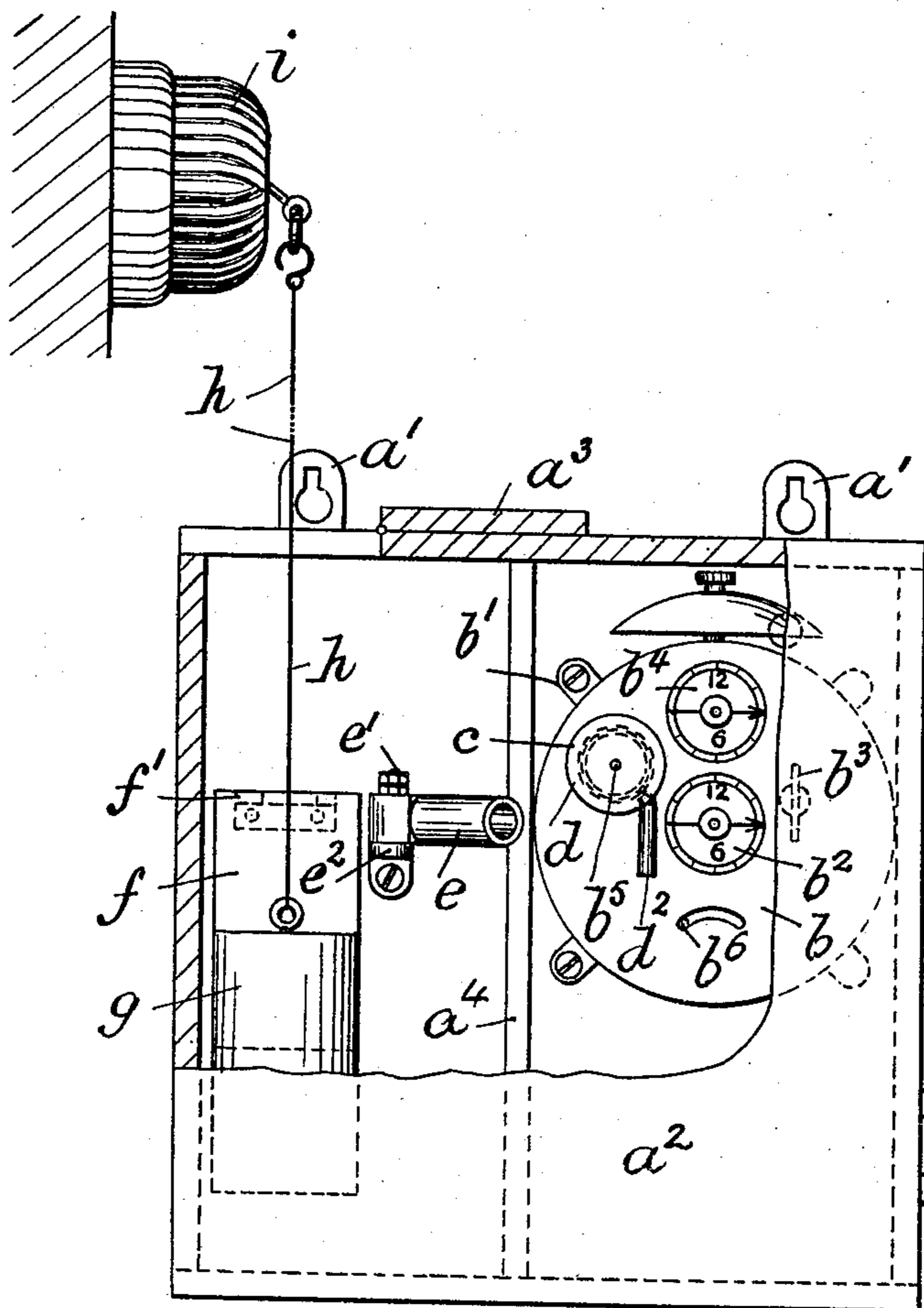


Fig. 3.

Witnesses  
 George G. Schoenlank  
 William B. Smith

Inventor  
 Charles Russ  
 by Frank Oldenmeel  
 Attorney

# UNITED STATES PATENT OFFICE.

CHARLES RUSS, OF WEST EALING, ENGLAND.

## TIME CONTROLLING MECHANISM FOR GAS-COCKS.

SPECIFICATION forming part of Letters Patent No. 773,987, dated November 1, 1904.

Application filed May 28, 1904. Serial No. 210,312. (No model.)

*To all whom it may concern:*

Be it known that I, CHARLES RUSS, a subject of the King of Great Britain and Ireland, and a resident of West Ealing, England, have invented a certain new and useful Improvement in Apparatus for Automatically Operating Electric Switches, Gas-Cocks, or other Like Controlling Devices, (for which I have filed an application for British Patent No. 8,394, dated April 12, 1904;) and I do hereby declare the following to be a full and exact description of the same.

This invention relates to improved apparatus for automatically operating electric switches, gas-cocks, or other like controlling devices at a predetermined time, so as to enable, for example, the lights in a building to be put out when desired without burning to waste or requiring the attention of any one to effect the same, and has for its object to provide a simple, cheap, and efficient apparatus for the purpose.

To this end the invention consists in operating the switch, gas-cock, or other controller by means of a weight which when the apparatus is set for actuation rests on a support or table held up by an arm or catch controlled by a clockwork mechanism and which when such mechanism releases the table falls sufficiently to operate the switch, cock, or other controller.

On the accompanying drawings, Figure 1 represents a sectional elevation of an apparatus embodying the present invention, showing the parts set for operating an electric switch. Fig. 2 represents a sectional plan of Fig. 1, showing part of the weight-supporting table broken away. Fig. 3 represents a sectional elevation showing the position of the parts when the switch has been operated.

$a$  represents a casing for containing the parts of the apparatus, which is provided with eyes  $a'$  for hanging it against a wall and with hinged doors  $a^2 a^3$ .

$b$  represents a clockwork mechanism supported by brackets  $b'$  or otherwise and provided with a time-dial  $b^2$ , a time-winding arbor  $b^3$ , an alarm-setting dial  $b^4$ , an alarm-winding arbor  $b^5$ , which rotates in the direc-

tion of the arrow when the alarm operates, 50 and a regulator  $b^6$ .

On the alarm-arbor  $b^5$  is keyed or mounted a drum or pulley  $c$ , which serves for a winding-handle and which has a chain, cord, or the like  $d$  connected to it at  $d'$ . The chain  $d$  is provided with a short peg  $d^2$ , which is adapted to loosely fit into the hollow end of an arm or catch  $e$  and to detachably connect the chain thereto. The arm is pivotally mounted on a stud  $e'$ , rising from a bracket  $e^2$ , attached to the casing side, so as to have facility of swinging in a horizontal plane between the box side and an upright  $a^4$ .

$f$  is a table hinged to the casing side at  $f'$  and adapted to be maintained in a horizontal position by the arm  $e$  when the latter is swung underneath it, Figs. 1 and 2, and to fall and assume a vertical position when the arm is swung from underneath it, Fig. 3. The table  $f$  when in its horizontal position serves to support a weight  $g$ , which may be made heavier or lighter to suit various switches and which is connected by a cord or the like  $h$  to the handle of the electric switch  $i$ .

The operation of the improved device is as follows: When it is desired to leave the apparatus to turn out the lights at a predetermined time, the clockwork mechanism is started and the alarm-dial is set so as to release the alarm and cause the arbor  $b^5$  to rotate at such time. The peg of the chain  $d$  is inserted into the hollow end of the arm  $e$ , and the latter is swung underneath the table, so as to support it and the weight on it. At the given time the alarm is automatically released, and the drum  $c$  winds the chain  $d$ , so as to swing the arm from underneath the table, which then falls and allows the weight to do likewise and operate the switch as desired, while the chain will disconnect from the arm by the peg  $d^2$  drawing out of its hollow end upon the arm stopping against the upright  $a^4$  and will allow the alarm-arbor to continue to operate and not interfere with the operation of the alarm.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In apparatus for automatically operat-

ing electric switches gas-cocks or other like  
controllers at a predetermined time, the com-  
bination, with a clockwork mechanism hav-  
ing a rotatable arbor adapted to be automat-  
ically operated at a predetermined time, of a  
drum fast on said arbor, a table adapted to  
swing in a vertical plane, a catch adapted to  
swing in a horizontal plane across the path of  
said table to support or release same, means  
connecting said drum and catch and adapted  
to operate said catch and to automatically de-  
tach therefrom after said catch has been op-  
erated, and a weight supportable by said ta-  
ble and connectible to the operating part of  
the gas or electric controller and adapted to  
operate same when the catch is operated and  
the table is released and falls, as set forth.

2. In apparatus for automatically operat-  
ing electric switches gas-cocks or other like  
controllers at a predetermined time, the com-  
bination, with a clockwork mechanism hav-  
ing a rotatable arbor adapted to be automat-  
ically operated at a predetermined time, of a  
drum fast on said arbor, a table adapted to  
swing in a vertical plane, a catch having a  
hollow end adapted to swing in a horizontal  
plane across the path of said table to support  
or release same, means attached at one end to  
said drum and adapted to be wound thereon  
when it operates, a short peg attached to the  
other end of said means and adapted to loosely

fit into the hollow end of said catch and con-  
nect said means thereto for operating said  
catch and to automatically disconnect the same  
after said catch has been operated, and a  
weight supportable by said table and connecti-  
ble to the operating part of the gas or elec-  
tric controller and adapted to operate same  
when the catch is operated and the table is re-  
leased and falls, as set forth.

3. In apparatus for automatically operat-  
ing electric switches gas-cocks or other like  
controllers at a predetermined time, in com-  
bination, a table adapted to swing in a verti-  
cal plane, a catch adapted to swing in a hori-  
zontal plane across the path of said table to  
support or release same, means adapted to  
connect said catch to a clockwork mechanism  
for operating same and to automatically dis-  
connect same after said catch has been oper-  
ated, and a weight supportable by said table  
and connectible to the operating part of the  
gas or electric controller and adapted to op-  
erate same when the catch is operated and the  
table is released and falls, as set forth.

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

CHARLES RUSS.

Witnesses:

ALFRED CHARLES DAY,  
ARTHUR WALTER DAY.