

(No Model.)

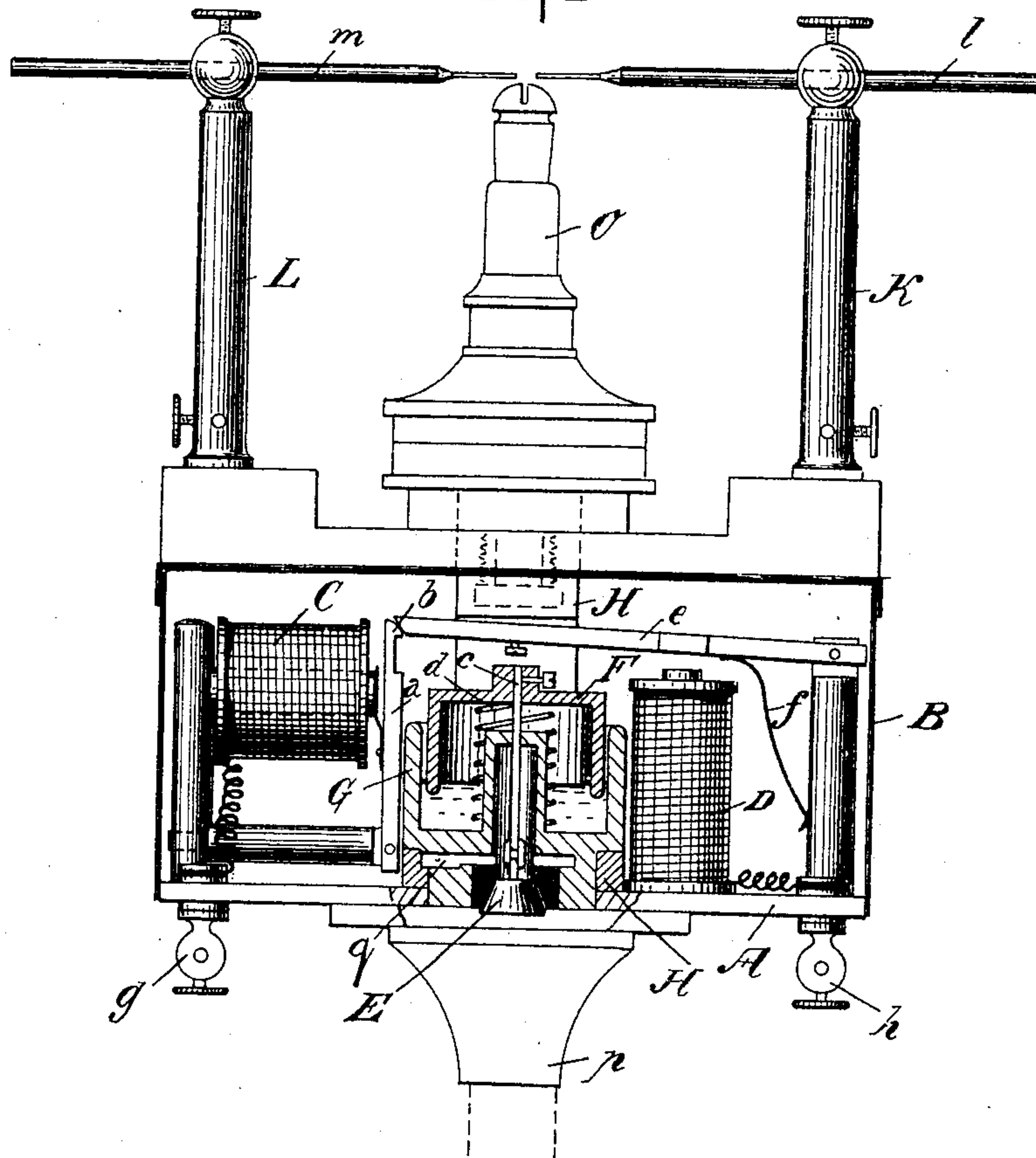
2 Sheets—Sheet 1.

G. GÖRLDT.
GAS LIGHTING APPARATUS.

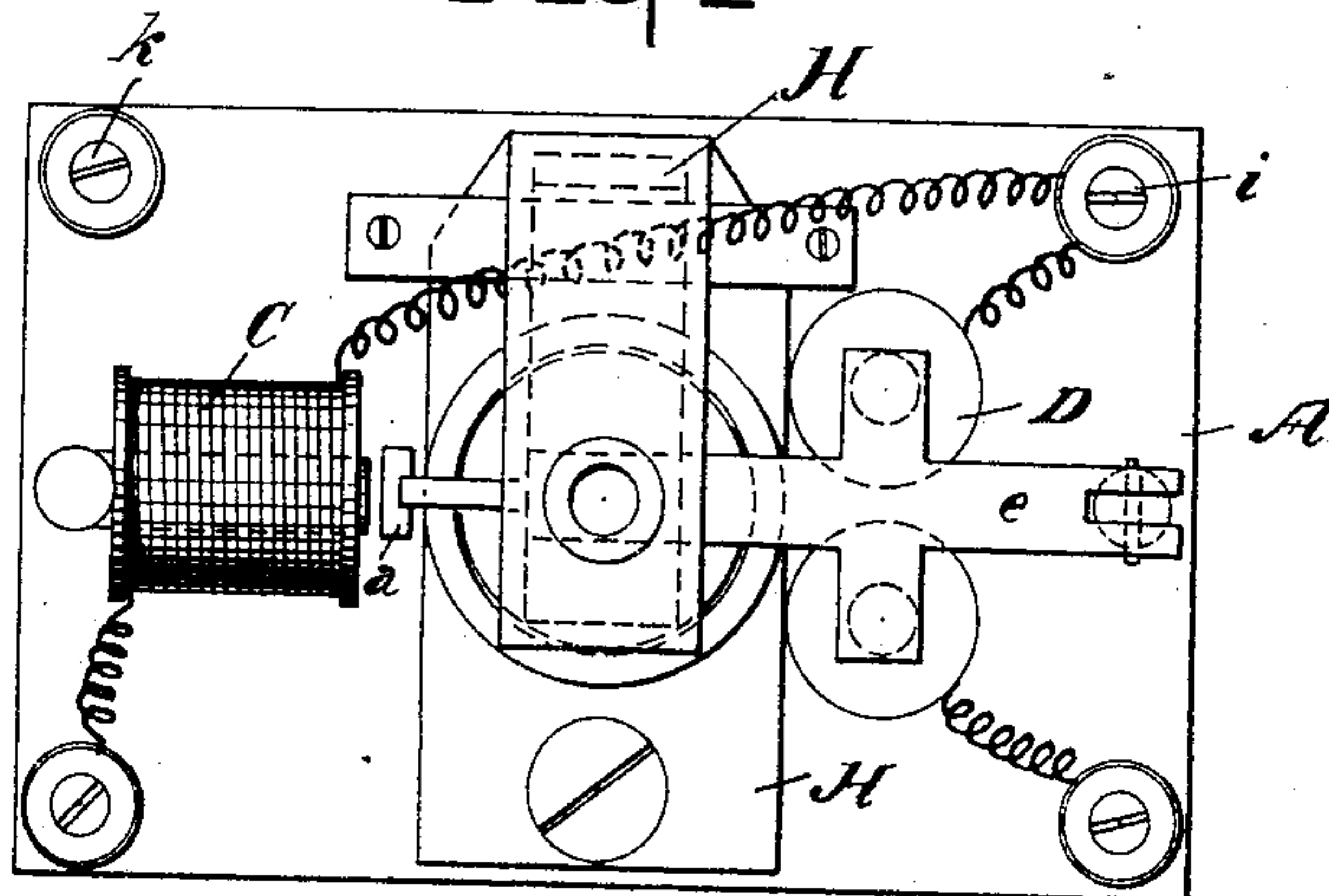
No. 501,565.

Patented July 18, 1893.

FIG-1.



FIG=2-



Witnesses:
Theodor Stendel.
Paul Kirschke

Inventor:
Gustav Gildt
per Gerson and Jackie
his Attorneys.

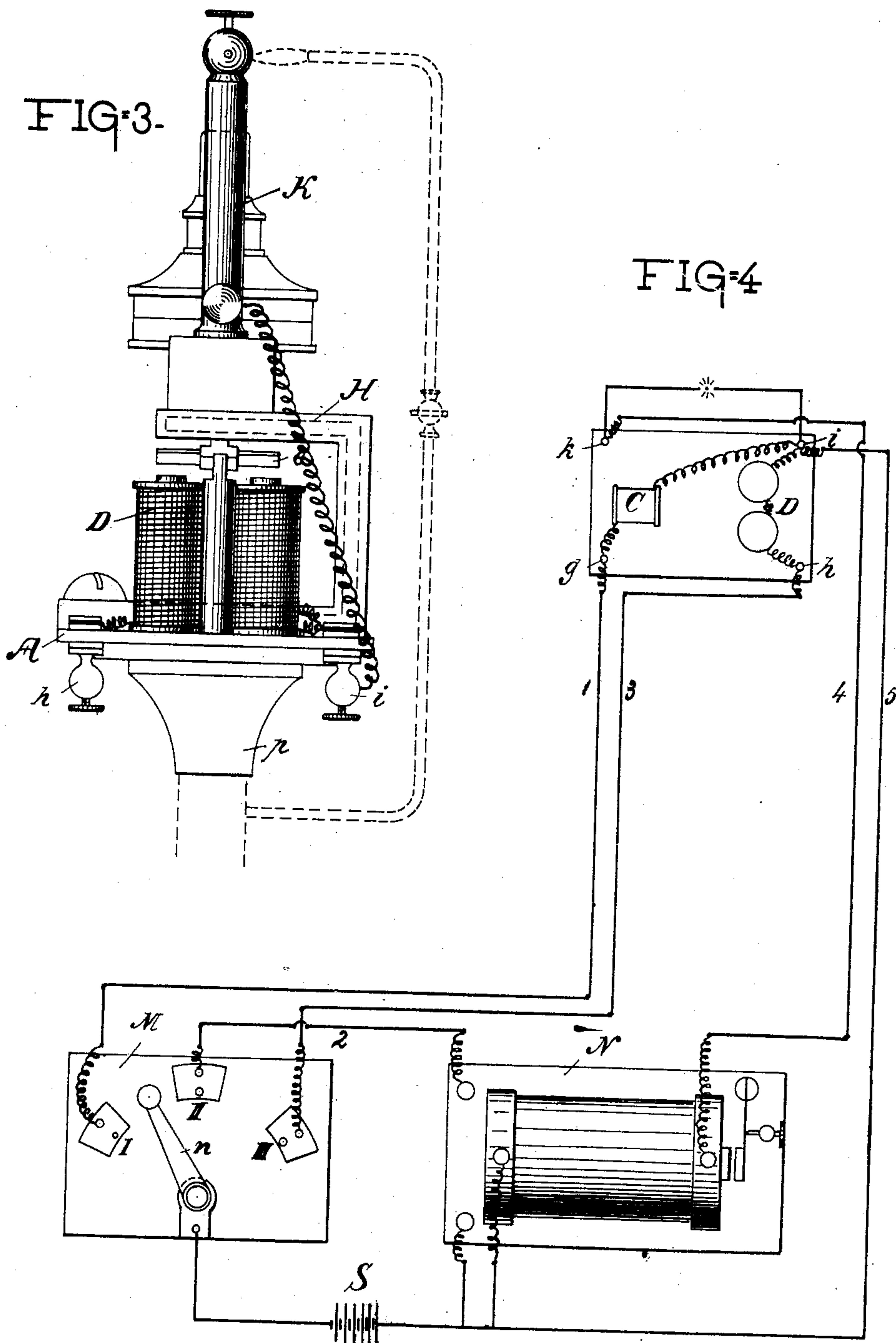
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Witnesses:
Theodor Staudel
Paul Hirschke.

Inventor:
Gustav Gördt
per Gerson & Sachse
his Attorneys.

UNITED STATES PATENT OFFICE.

GUSTAV GÖRLDT, OF KITZINGEN, GERMANY.

GAS-LIGHTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 501,565, dated July 18, 1893.

Application filed December 10, 1892. Serial No. 454,762. (No model.)

To all whom it may concern:

Be it known that I, GUSTAV GÖRLDT, a subject of the Emperor of Germany, residing at Kitzingen, in the Empire of Germany, have
5 invented a new and useful Gas-Lighting Apparatus, of which the following is a specification.

The object of the present invention is a gas lighting apparatus, enabling by way of electricity, from a distant place to light or put out gas, viz., causing the supply and the cut-off, as well as the lighting of the gas.

The accompanying drawings show, in Figure 1, a front view of the electric gas lighting
15 apparatus with partial section; Fig. 2, the ground plan; Fig. 3, the side view; Fig. 4, the circuit-system with the accessory appliances.

On the ground-plate A of the casing B which incloses the mechanism, the two electromagnets C and D are fitted. The electromagnet C acts on the vertical lever *a* which forms the armature and is provided with a projecting catch *b*. The electromagnet D however acts on the gas stop-valve E. The
25 latter is furnished with mercury, and by means of the rod *c* suspended to the bell F the lower part of which submerges into the mercury contained in the vessel G. By the agent of a spring *d* the bell is always pressed
30 upward, the valve E being at the same time pressed against its seat. Through the spring *f* the armature-lever *e* is held off from the electromagnet D until it leans against the horizontal arm of the frame H. The electromagnets C and D are connected with the terminals *g*, *h*, *i* in the way shown by Fig. 2, while the columns K, L which carry the spark-wires *l*, *m*, are connected by wires with the terminals *k*, *i* (Figs. 3 and 4.) For the working of
40 the gas lighting apparatus there are also required the circuit-changer M, the spark-inductor N, and the electric battery S which appliances are, according to the circuit-system Fig. 4, connected with each other and
45 with the gas lighting apparatus. When the gas-burner is at rest, the lever *n* is in no contact with any one of the three segments I, II, III, but takes up an intermediate position. When the burner is to be lighted, the lever *n*
50 is put on segment III. The current of the battery S then goes from the left pole through

the leading wire to lever *n*, and over segment III along leading-wire 3 to terminal *h* of the apparatus. From there it goes through the electromagnet D and then over terminal *i*
55 and leading-wire 5 back to the battery. The current circulating round the electromagnet D makes the latter magnetic, so that the armature-lever *e* is attracted by the magnet. In consequence of this, the left end of the
60 lever *e* is pressed onto the bell F pressing the same down along with the valve E which is suspended to rod *c*. Thus the gas is allowed to stream from the supply *p* through the opened valve-seat into the slit *q* which forms
65 the continuation of the hollow space of the frame H; from there it streams through the hollow frame H into the gas burner O screwed onto it, finally passing by the points *l*, *m*. The supply of the gas thus being opened, the
70 lighting is effected by the lever *n* being put from segment III onto segment II.

In order to prevent the armature *e* from going up again and the stopping of the supply of the gas in consequence of the current
75 of the leading wire connected with segment III being interrupted, the left end of the lever *e* is provided with a slope which catches under *b* of the armature *a* when the lever *e* goes down as described, so that valve E keeps
80 open. By putting the switch-lever *n* on segment II the spark-inductor N is put into action, because its primary circuit which is formed by battery S, lever *n*, segment II, leading-wire 2, and the primary inductor-coil
85 ing connected with the terminals at the left end is closed. The induced currents produced in the induced coilings take their course from one of the terminals on the inductor-bobbin, over leading wire 4, terminal
90 *k*, over column L which is connected with the latter, and the wire *m* (Fig. 1); the return being effected through wire *l*, column K (Fig. 1), terminal *i* and leading-wire 5, to the second terminal of the inductor-bobbin. The spark
95 passing between the spark-wires *m*, *l* causes the ignition of the gas streaming out between the two points. The switch-lever *n* is then replaced into its first position between segments I and II. If the flame is required to
100 be put out the lever *n* is turned onto segment I whereupon the current of battery S

returns from the left pole over lever *n*, segment I, leading-wire 1, terminal *g*, electro-magnet C and terminal *i*, leading-wire 5 to the other pole of the battery; consequently
5 the armature *a* is attracted by the electro-magnet C, releasing lever *e* out of the catch *b*. The lever *e* now gives way to the pressure of spring *f*, going up and causing the spring *d* to lift the bell F, thus closing the
10 valve E and cutting off the supply of gas.

Instead of effecting the ignition by means of the spark-inductor N, the latter as well as the leading-wires II, 2, 4, the columns K L and the spark-wires *m l* may be left away
15 and instead a continually burning ignition-flame may be provided close over the gas-burner, which is fed through a thin piping,

branching off from *h*, as indicated by the dotted lines Fig. 3. The supply and the cut-off of the gas are effected in the same way as
20 afore described.

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

The combination, in a gas lighting apparatus of the electro-magnets C D, the armature *e*, the valve E suspended to rod *c*, the bell F, the vertical lever *a*, forming the armature and provided with a catch *b* as and
25 for the purpose set forth.

GUSTAV GÖRLDT.

Witnesses:

ROB LOTTHAMMER,
OSCAR BOCK.