

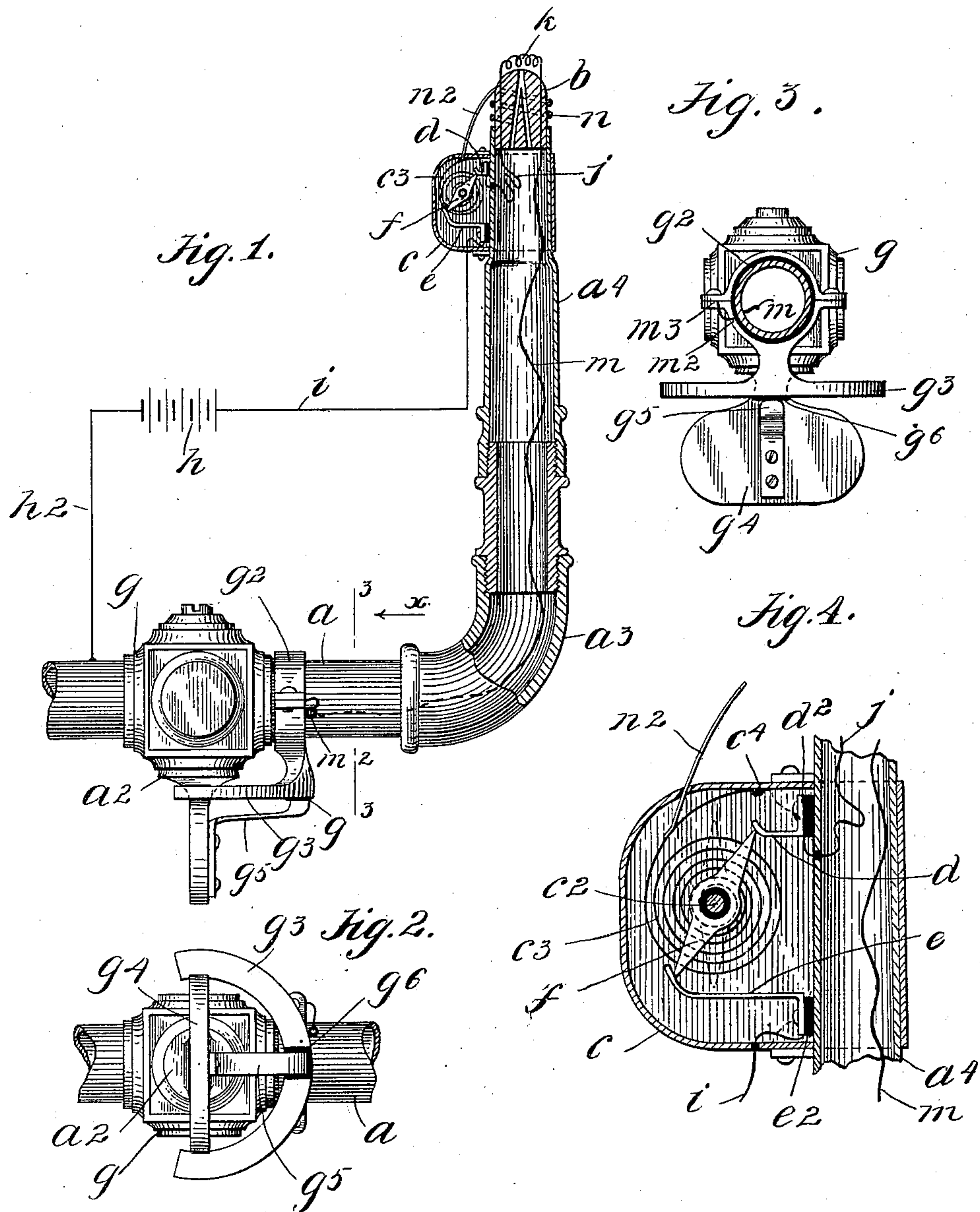
No. 754,075.

PATENTED MAR. 8, 1904.

W. KOHN.
GAS BURNER.

APPLICATION FILED JULY 6, 1903.

NO MODEL.



WITNESSES

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WILLIAM KOHN, OF BROOKLYN, NEW YORK.

GAS-BURNER.

SPECIFICATION forming part of Letters Patent No. 754,075, dated March 8, 1904.

Application filed July 6, 1903. Serial No. 164,298. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM KOHN, a subject of the Emperor of Austria-Hungary, residing at Brooklyn, in the county of Kings and State of New York, have invented certain new and useful Improvements in Gas-Burners, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to gas-burners; and the object thereof is to provide an ordinary illuminating-gas-burner fixture with an electrical attachment which will automatically operate to reignite the gas if the latter be accidentally blown out or extinguished in any other way without being turned off; and with this and other objects in view the invention consists in an electrical attachment for gas-burners of the class and for the purpose specified constructed as hereinafter described and claimed.

This invention is an improvement on that described and claimed in another application for Letters Patent of the United States, filed by me April 3, 1903, Serial No. 150,906, and is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a sectional side elevation of an ordinary gas fixture and burner provided with my improvement; Fig. 2, a bottom plan view of the valve portion of the fixture; Fig. 3, a section on the line 3-3 of Fig. 1, and Fig. 4 a view similar to Fig. 1 and showing part of the construction on an enlarged scale.

In the drawings forming part of this specification I have shown an ordinary gas-fixture which may be connected, with a wall, wall-bracket, chandelier, or other similar device, and said fixture comprises a pipe a , having the usual valve a^2 , and in the form of construction shown said pipe is provided with an elbow member a^3 , with which is connected a burner-tube a^4 , provided with the usual burner-tip b .

Connected with the upper end of the burner-

tube a^4 is a casing c , provided with a short shaft c^2 , with which is connected one end of a helical thermostat-spring c^3 , the other end of which is secured to the casing c at c^4 . Within the casing c are also placed two electrical contact devices d and e , both of which are preferably secured to the burner-tube a^4 and insulated therefrom, as shown at d^2 and e^2 , and connected with the shaft c^2 and insulated therefrom is a rotatable contact device f , which is adapted to connect with both of the contact devices d and e .

Connected with the pipe a near the casing g of the valve a^2 is a band g^2 , and this band is provided at one side with a horizontally-arranged segmental member g^3 , and the end of the valve a^2 is provided with a spring-arm g^5 , the free end of which is adapted to bear on the segmental member g^3 of the band g^2 , and when the valve a^2 is in position to cut off the flow of gas through the pipe a the spring-arm g^5 is insulated from the member g^3 , as shown at g^6 , said member g^3 being provided with insulating material at g^6 for this purpose.

I also provide a battery h or other generator or source of electricity, and a wire h^2 is connected with this battery and with the pipe a or valve-casing g , or this connection may be made with the valve or with the spring-arm g^5 , and another wire i is connected with the battery h and passed into the casing c and connected with the contact device e . Another wire j is connected with the contact device d , and in the form of construction shown is passed into the burner-tube and through the burner-tip b and connected with a platinum coil k , arranged transversely of the top of the burner-tip, and connected with the other end of said coil is another wire m , which extends downwardly through the burner-tip and through the burner-tube and the pipe a and the elbow a^3 and is passed outwardly through the pipe a adjacent to the band g^2 , as shown at m^2 , and is connected with said band g^2 at m^3 .

A coil n , of copper or other suitable metal, is wound on the burner-tip b , and one end thereof is formed into an arm n^2 , which is passed into the casing c and bears on the thermostat-coil c^3 . When the parts are in the po-

sition shown in Figs. 1 and 2, the circuit is not complete, said circuit being broken at g ; but if the valve be turned so as to permit the gas to flow through the fixture the arm g^5 will bear on the segmental member g^3 and the circuit will be complete and the platinum coil h will be heated and will ignite the gas flowing through the burner-tip. At this time the thermostat-spring c^3 is heated and throws the contact device f into the position shown in dotted lines in Fig. 4 and the circuit is broken and remains broken as long as the burner is in operation, and during this time the battery h is at rest. If at any time while the parts are in this position the gas should be blown out or otherwise accidentally extinguished without cutting off the flow, the thermostat c^3 will immediately cool and the rotary contact device f will be turned thereby into the position shown in full lines in Figs. 1 and 4, and the circuit will again be completed and the gas will be again ignited and the burning of the gas will again heat the thermostat and the contact device f will again be turned into the position shown in dotted lines in Fig. 4 and the circuit will be again broken and the battery h will be at rest.

It will thus be seen that when the gas is not flowing through the fixture the circuit is broken by the arm g^5 and the battery h is at rest, and when the gas is burning the circuit is broken by the rotary contact device f and the battery is again at rest, and if at any time the gas is blown out or otherwise accidentally extinguished without being turned off the thermostat c^3 will operate the contact device f to again close the circuit and relight the gas.

It will thus be seen that under usual conditions the battery h is not in operation when the gas is burning and is also not in operation when the gas is turned off by the key, and by reason of this fact an ordinary dry battery may be used for a great length of time; but any suitable source of electrical supply may be provided.

This device is simple in construction and operation and may be applied to illuminating-gas burners wherever desired, and changes in and modifications of the construction herein described may be made without departing from the spirit of my invention or sacrificing its advantages.

Having fully described my invention, what

I claim as new, and desire to secure by Letters Patent, is—

1. In a device of the class described, a gas-fixture provided with a valve, a burner-tube, and a burner-tip connected with said tube; a contact device connected with the fixture adjacent to the valve and provided with a segmental member, a spring-arm connected with the valve and operating in connection with said member, means for insulating said arm from said member when the gas is turned off, a casing connected with the burner-tube, two insulated contact devices secured in said casing, a platinum coil supported across the burner-tip and one end of which is in electrical connection with one of said contact devices, and the other end of which is in electrical connection with the contact device secured to the fixture, a battery in electrical connection with the fixture and with the other contact device within said casing, a rotary contact device in said casing and adapted to complete the circuit between said stationary contact devices, a thermostat for operating the rotary contact device and means connected with the burner-tip for heating the thermostat, substantially as shown and described.

2. In a device of the class described provided with a burner-tube and burner-tip, a platinum coil supported over the burner-tip, a casing secured to the burner-tube and provided with two stationary insulated contact devices, a rotary contact device mounted between the stationary contact devices, a thermostat for operating the rotary contact device, means whereby the heat of the burner will operate the thermostat, a wire connected with one end of the platinum coil and with one of said stationary contact devices, another wire connected with the other end of said platinum coil, a battery in an open circuit formed by said wires and means whereby the turning on of the gas will complete said circuit, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 3d day of July, 1903.

WILLIAM KOHN.

Witnesses:

L. U. STEWART,
C. E. MULREANY.