(No Model.)

A. M. SLOSS.

ELECTRIC GAS LIGHTING APPARATUS.

No. 489,616. Patented Jan. 10, 1893.

Fig. 3.

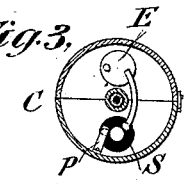


Fig. 4.

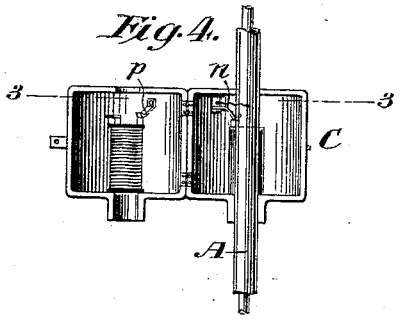
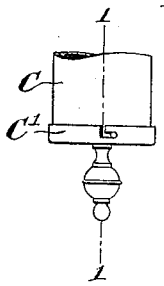


Fig. 1.

Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

AARON M. SLOSS, OF KANSAS CITY, MISSOURI.

ELECTRIC GAS-LIGHTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 489,616, dated January 10, 1893.

Application filed March 24, 1892. Serial No. 426,235. (No model.)

To all whom it may concern:

Be it known that I, AARON M. SLOSS, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Electric Gas-Lighting Apparatus, of which the following is a specification.

My invention relates to that class of apparatus which makes use of an electric spark, derived from an inductive or spark-coil, which has been momentarily excited by a voltaic battery or other generator of electricity, to ignite gas-burners or lamps, by merely pulling a cord or like device attached to the burner or lamp, which serves to close the electric circuit through the coil and to produce the spark, by self-inductive action, upon the interruption of the circuit. Heretofore it has been usual to employ for such purposes a single inductor or spark-coil, with its exciting battery, which have often been placed in some remote and inconvenient part in the building. Insulated wires have been extended therefrom throughout the whole building, having separate branches to each and every gas-burner or lamp, so that the closing of the circuit of this battery at any burner would cause a spark to be projected from the coil through the system of wires to the point where the circuit had been closed. There are many objections in practice to this plan. The running of the number of wires required for a long distance is expensive and inconvenient, especially in case the system has to be introduced into an existing building, while the occurrence of a fault in any of the numerous ramifications of the electric circuits is liable to completely disable the whole system.

The object of my invention is to avoid these inconveniences, by the establishment of a localized apparatus, in connection with each separate burner or group of burners or lamps, thus minimizing the amount of wire to be run, and confining the effects of any fault which may occur to the particular locality in which it originates. To this end I employ a separate battery and spark-coil preferably for each fixture or group of fixtures having a common supply pipe, and I arrange these compactly within a suitable case, which is so constructed that it may be affixed to and supported by the fixture or lamp which it is designed to operate. This case forms an inconspicuous and unobjectionable accessory to the fixture, and at the same time permits of convenient access being had when required, to the battery, spark-coil and electrical wires and connections.

In the accompanying drawings, Figure 1 is an elevation partly in section, showing a gas-fixture, lamp or chandelier, to which my improvement has been attached; Fig. 2 is a detail view, showing in elevation a portion of the case containing the battery and spark-coil; Fig. 3 is a horizontal transverse section, and Fig. 4 is an elevation of another form of case adapted to be attached to the supply pipe of the fixture, the case being shown open to admit of access to the interior.

In Fig. 1 of the drawings, A is the supply-pipe of a fixture, lamp or chandelier, here shown as depending from the ceiling, and B B are two branches thereof extending in opposite directions and terminating in tips or burners *b b* of the usual construction.

C is a cylindrical metal case, made in two parts *c c'* the upper part *c* being ordinarily permanently attached to the fixture, and the lower part *c'* being made detachable in any convenient manner, as for example in Fig. 2, in which the parts are shown as united by a bayonet joint.

Inclosed within the case C, and preferably affixed to its removable part C', is a small cell of voltaic battery E. The battery may with advantage be of the type known as the "dry battery" which, as well as the spark-coil, may be made of very small dimensions so that the latter may also be placed in the same case. When the part C' with the coil and battery is placed in position, a metallic stud upon the spark-coil touches the contact-spring *p* which is in metallic connection through the case C with the supply pipe A and its branches and tips. A similar contact-stud upon the battery E touches the other circuit-spring *n* which is insulated as shown, and forms the terminal of an insulated wire running to the circuit closer *q* of each burner, such wire being preferably carried through the interior of the tube. The circuit closers *q q* are operated in

the usual well-known manner, by pendants *r r* or other equivalent means. When a pendant *r* is drawn down, the circuit-closer *q* is momentarily brought in contact with the tip of the burner *b*, and the circuit of battery E is closed through the spark-coil S. Upon breaking the circuit between *q* and *b*, a spark is projected from the coil S which serves to light the gas at the burner.

The arrangement shown in Figs. 3 and 4 is the same in principle as that first described but somewhat different in construction. The case C is here shown as vertically separated into two semi-cylindrical parts, hinged to each other and inclosing the battery and spark-coil. It is desirable that when the case C is of metal, this division should be vertical, or parallel to the axis of the inclosed spark-coil, as the induced currents which tend to oppose the normal action of the coil, and which are set up in the walls of the case, are thereby interrupted. The case is made to surround the supply pipe A and may be wholly detached therefrom if occasion requires.

Either of the forms of apparatus shown may readily be attached to ordinary gas-fixtures chandeliers, brackets or lamps which have already been put in place.

I claim as my invention:—

1. The combination with a gas-fixture or lamp of a battery, a spark-coil, and a detachable case containing said battery and spark coil, formed in two parts and surrounding the main supply pipe of said fixture or lamp, substantially as set forth.

2. The combination with a gas-fixture or lamp, of a battery, a spark-coil, and a case containing said battery and spark-coil, which incloses the junction of the main supply-pipe with the branches supplying the several burners, substantially as set forth.

3. The combination with a gas-fixture or lamp, of a battery a spark coil, a case containing said battery and spark-coil and supported by said fixture or lamp, which case is formed in two parts, one separable from the other, and insulated contact-springs forming the terminals of wires leading to the burners or groups of burners, which are automatically brought into connection with the terminals of the battery and spark-coil by the closing of the case, substantially as set forth.

4. The combination with a gas-fixture or lamp, of a battery and spark-coil for electrically lighting the same, and an outer casing affixed to and surrounding the supply-pipe of said fixture, so as to inclose said battery and spark-coil between said pipe and casing substantially as set forth.

In testimony whereof I have hereunto subscribed my name this 21st day of March, A. D. 1892.

AARON M. SLOSS.

Witnesses:
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