

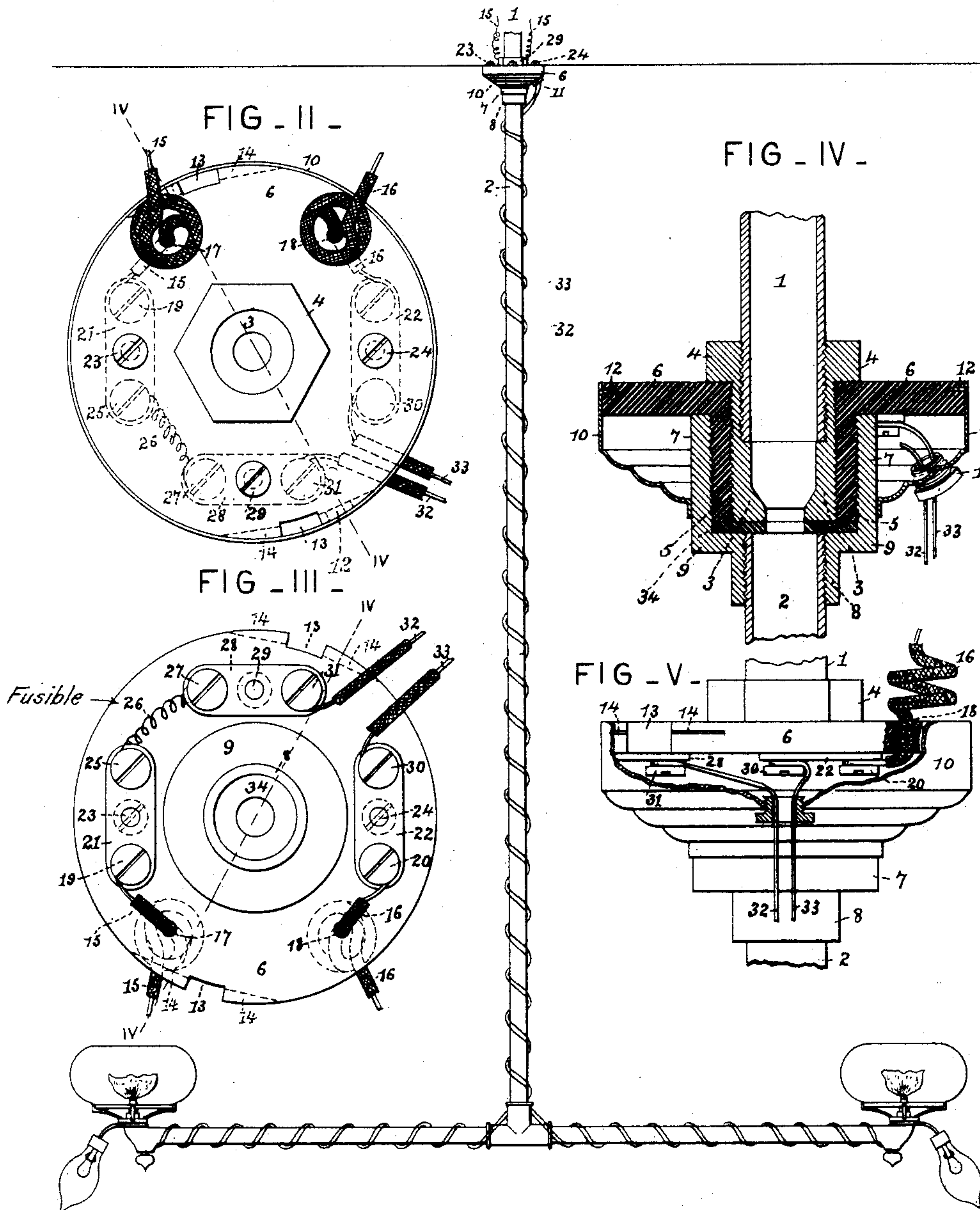
(No Model.)

H. M. & R. DOUBLEDAY.
INSULATING CUT-OUT JOINT.

No. 402,420.

Patented Apr. 30, 1889.

FIG. I.



Attest:

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UNITED STATES PATENT OFFICE.

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INSULATING CUT-OUT JOINT.

SPECIFICATION forming part of Letters Patent No. 402,420, dated April 30, 1889.

Application filed September 18, 1888. Serial No. 285,732. (No model.)

To all whom it may concern:

Be it known that we, HARRY M. DOUBLEDAY and RUSSELL DOUBLEDAY, citizens of the United States, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a certain new and Improved Insulating Cut-Out Joint, of which the following description, taken in connection with the accompanying drawings, is a specification.

Our invention relates to a combined cut-out for incandescent electric lamps and insulating-joint, which is intended to be interpolated between the gas-pipe terminal and gas-fixture or any other similar structure.

The objects of our invention are to provide an article which will be simple, cheap, and effective, and at the same time durable, easily applied, and neat in appearance; and with these ends in view we construct our device substantially as follows:

A brass sleeve adapted to screw over the gas-pipe terminal carries a surrounding insulating-jacket provided with a broad circumferential flange for carrying the conductors and ordinary cut-out connections, while an outer brass sleeve surrounds the insulator and has a contracted lower end for the reception of the gas-bracket or continuation of the gas-pipe. A cap having a central opening for passage of lower end of the outer sleeve conceals the connectors, is secured to the periphery of the insulator-flange, and has an insulating-bushing on one side, through which the lamp-conductors pass at an angle, when they may be bent to retain the cap in position.

The novel features of our device are particularly pointed out in the claims, being first fully described with reference to the accompanying drawings, in which—

Figure I represents our device as applied to an ordinary gas-hanger. Fig. II is a top view of the device detached. Fig. III is a bottom view of the same with the cap removed. Fig. IV is an axial section on the line IV IV, Figs. II and III; and Fig. V is a perspective view showing the passage of the lamp-supporting conductors through the bushing.

Referring to the drawings, 1 2 are respect-

ively the gas-pipe terminal and any form of gas-hanger.

3 is a brass sleeve having an ordinary-faced head, 4, adapting it to receive a wrench for screwing it on the terminal, corresponding male and female threading being formed on the terminal and sleeve, respectively. This sleeve may also be provided with a shoulder for the abutment of the terminal, as shown, and is preferably made inwardly flaring at its lower end, whereby an enlarged end is formed for contact with the end of the gas-fixture, or, preferably, against a gasket, 34, supported on the shoulder 9 of the outer sleeve. The end of the fixture may also abut against this gasket.

The exterior of sleeve 3 is screw-threaded throughout, and on it is fitted the correspondingly screw-threaded insulating-jacket 5, which has a broad circumferential flange, 6, the inner edge of which abuts against the head 4 of the inner sleeve. The insulator is also externally screw-threaded, which adapts it to receive the correspondingly-threaded outer brass sleeve, 7, the upper end of which fits up under the inner part of the flange 6, and the lower end of which is contracted to form the above-mentioned shoulders 9 and interiorly-screw-threaded neck 8 for the reception of gas-fixture 2.

10 is the fluted collar for concealing the connectors and cut-out and improving the appearance of the device. This collar has a central opening for the passage of the sleeve 7, and is fitted to the periphery of the insulator-flange and secured in place by means of bayonet or similar joints.

15 16 are supply-wires, which pass, respectively, through apertures 17 18 to connect with binding-screws 19 20 on connecting-plates 21 22. These plates are secured to the bottom of the flange by means of screws 23 24, passed through the flange and entering correspondingly-threaded apertures in the plates. A third connecting-plate, 28, secured by a screw, 29, similarly to the plates 21 22, has binding-screws 27 30. From the binding-screw 27 on plate 28 to a binding-screw, 25, on plate 21 is run the ordinary fusible cut-out wire, 26.

32 33 are the lamp-wires, depending from

binding-screws 30 31 on plates 28 and 22, respectively.

11 is an insulating-bushing screwed or otherwise fastened in the collar 10. The binding-screws 30 31 are placed on opposite sides of the bushing, so that the wires passing through the latter at an angle and then being entwined around the fixture provide an effective key to prevent the movement of the collar in either direction, and hence to prevent the disengagement of the same from the flange. On the other hand, the collar may be freely turned and disengaged upon the loosening of the wires slightly to relieve the tension.

While the above-specified construction may be preferable, it is obvious that the principles of our invention are susceptible of various modifications of details of construction, which are to be determined by circumstances and the nature of the place to which the device is to be applied, the main object of our invention being to combine an electric cut-out with an effective insulating-joint.

Although but one lamp is described, it is evident that two can be connected to the same joint on opposite sides, the only necessary change being the addition of a conductor-plate and cut-out wire, if desired; or the same could be effected by the simple addition of another insulated binding-screw, or by separating the first plate beyond the cut-out. It may also be desired to supply two lamps from a single pair of conductors, as shown.

The insulators used are preferably hard rubber; but they may be of any other suitable substance. The neck 8 of the outer sleeve may be exteriorly screw-threaded, if more convenient. The washer 34 may be removed and the ends of the pipes may be brought together, though the connection shown in the drawings is preferable, inasmuch as the fixture is completely insulated from the gas-pipe, and if any leakage occurs no ground-connection can possibly be made and the leak will therefore do no harm. It will also be noticed that the washer 34, which may be of asbestos, soft rubber, leather, or other suitable material, will make a gas-tight joint between the parts 1 2.

If it is desired, the conductors may be made to pass through the interior of the pipe from the cut-out. It will also be seen that the insulator could be used without any bracket or fixture, and a cap or disk on the shoulder 9 be used to stop the flow of gas.

Having thus described our invention, the following is what we claim as new therein and desire to secure by Letters Patent:

1. In a combined insulating-joint and cut-out for electric lamps, the combination of a gas-pipe terminal, 1, sleeve 3, screwing on the terminal, insulating-jacket 5, screwing on the sleeve 3 and having flange 6, for carrying the connectors and cut-out, and outer sleeve, 7, screwing on the insulator 5 and having shoulder 9 and neck 8, the fixture 2, screwed into

said neck, the gasket 34, supported by shoulders 9 and impinged by sleeve 3 and end of fixture 2, the cap 10, secured to the flange 6 and having the central opening for passage of the joint, and an eccentric opening in which is the bushing 11, through which the lamp-supplying conductors 32 33 pass from the connectors, as hereinbefore set forth.

2. The combination, with the gas-pipe terminal 1 and gas-fixture 2, of the interposed insulating-joint and cut-out consisting of sleeve 3, screwed on the terminal, insulating-jacket 5, screwed on the sleeve and carrying the supply-wires, connectors, cut-out, and lamp-wires, the outer sleeve, 7, screwed on the insulator and supporting the gas-figures, and cap 10, for concealing the connectors, having central opening for passage of fixture and eccentric opening for conductors, as set forth.

3. The combination of a suitable support, 1, sleeve 3, screwing on said support, insulating-jacket 5, screwing on sleeve 3, and cap 10, surrounding the insulator, having a central opening for the joint, said insulator having suitable electrical connections and carrying the cut-out, and the lamp-conductors passing through an eccentric opening in the cap, all substantially as herein described.

4. The combination, with the terminal 1 and gas-fixture 2, of an insulating-jacket carried by the terminal, a sleeve carried by the insulator and supporting the gas-figures, and a transverse surrounding flange, 6, formed on the insulating-sleeve and carrying the cut-out, and connections whereby the electric lamp is connected on the opposite side of the insulator from the terminal, as fully explained.

5. In combination with a gas-figures supply-pipe, a screw-threaded insulating-sleeve having a passage therethrough interpolated between two portions of the fixture and having a broad insulating surrounding flange formed integrally therewith for supporting the connections for an electric lamp, whereby a continuous passage for gas is maintained without affording ground-connection for leakage.

6. In combination with a gas-figures, an insulating-sleeve interposed between two parts of the fixture to completely insulate them, said insulator having a broad lateral insulating-flange formed integrally therewith, supporting the cut-out and other connectors for an electric lamp, as shown and described.

7. In an insulating-joint and cut-out, the combination, with an insulating-support, 6, carrying the conductors, as explained, and having a cylindrical portion for coupling the gas fixture and pipe, of a cap, 10, having a central opening for the passage of the fixture and an opening without the center for the passage of the lamp-conductors, as explained.

8. In a cut-out for electric lamps, the combination, with the support 8, carrying the electrical connections and lamp-supplying

conductors 32 33, of a cap, 10, having a passage for the conductors 32 33 and secured to the support by bayonet-joints extending from said recess, the said conductors being secured 5 to the support to one side of their passage through the cap, whereby upon being bent they form an effective stop to the movement of the cap, as explained.

10 9. In a cut-out for electric lamps, the combination, with the support carrying the cut-out wire and suitable connectors, of the lamp-supplying wires depending from the support and the cap fitting over the support and secured thereto by a catch and having an eccentric opening for the lamp-wires, the said 15 lamp-wires being attached to the support on opposite sides of the opening through which they pass, whereby they prevent the movement and consequent disengagement of the cap, as explained.

20 10. In a combined insulating-joint and cut-

out for electric lamps, the combination, with the insulating-support 6, from which depend the lamp-conductors, of a cap, 10, having an eccentric passage for said conductors, a central 25 passage for the joint, and an insulating-bushing, 11, screwed into said eccentric passage, as set forth.

11. The combination, with a gas-fixture and electric lamps supported on the same, of a 30 combined cut-out and insulating-joint interposed in the fixture, consisting of an integral screw-threaded insulating-sleeve and broad annular flange carrying cut-out wires and electrical connection between the cut-out and 35 lamps, as and for the purpose set forth.

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