

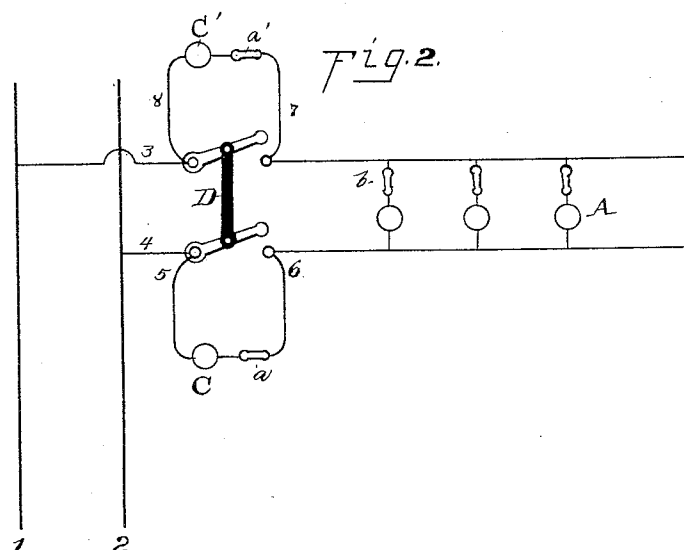
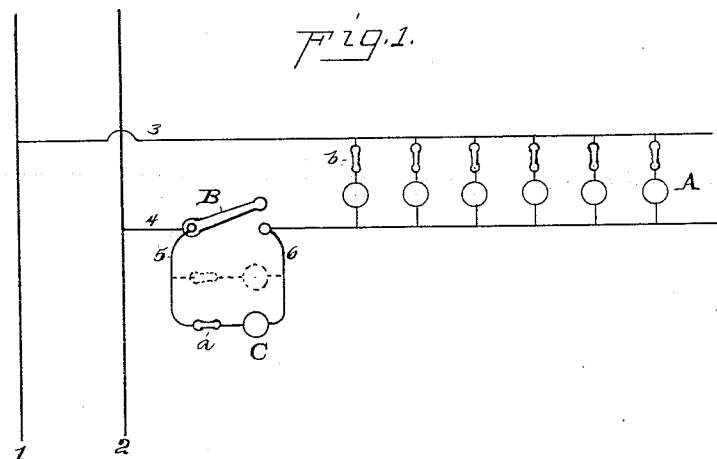
(No Model.)

R. N. DYER.

NIGHT LAMP FOR ELECTRIC LIGHTING SYSTEMS.

No. 348,155.

Patented Aug. 24, 1886.



ATTEST:

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UNITED STATES PATENT OFFICE.

RICHARD N. DYER, OF NEW YORK, N. Y., ASSIGNOR TO JOHN W. HOWELL
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NIGHT-LAMP FOR ELECTRIC LIGHTING SYSTEMS.

SPECIFICATION forming part of Letters Patent No. 348,155, dated August 24, 1886.

Application filed December 5, 1885. Serial No. 184,776. (No model.)

To all whom it may concern:

Be it known that I, RICHARD N. DYER, of New York city, in the county and State of New York, have invented a certain new and useful
5 Improvement in Night-Lamps for Electric Lighting Systems, of which the following is a specification.

The general object I have in view is to provide an electric night-lamp for use in stores and
10 similar locations, which will have a reduced incandescence to give permanency of life to lamp and economy in use of current, such reduced incandescence being produced by a simple and efficient arrangement of resistances, forming a
15 necessary part of the electric lighting-circuit, and hence making unnecessary the expense of special resistances for this purpose.

A specific object is to provide for the automatic lighting and extinguishing of the night-lamp by the act of operating the main switch
20 for lighting and extinguishing simultaneously all or a number of the regular lamps of the store or room in which the night-lamp is located.

The general object is accomplished by utilizing a number of the regular lamps for the current-reducing resistance, the night lamp or
25 lamps being arranged and connected for throwing into and out of series with a number of the regular lamps, the latter being connected in
30 multiple arc with relation to one another. To do this the night-lamp is arranged in a shunt around the switch controlling the circuit to all or a number of the regular lamps. The opening
35 of circuit at this switch throws the night-lamp into series with the regular lamps controlled by the switch. The current of night-lamp will be divided between the several regular
40 lamps, which will not become incandescent, while the night-lamp will show an incandescence less than normal. The opening and closing of the circuit by operating the main switch throws the night-lamp automatically into and
45 out of circuit, the night-lamp being short-circuited when the switch is closed. More than one night-lamp may be located in the shunt around the switch, and if the circuit has current during the day, separate circuit-controllers may be

provided to turn off the night-lamps during the day, when the main switch is open, by opening the shunt-circuit. When a double-pole
50 main switch is employed to control the regular lamps, a shunt including one or more night-lamps may be formed around each side of the switch.

In the accompanying drawings, forming a part hereof, Figure 1 is a diagram showing
55 night-lamp arrangement with single-pole main switch, and Fig. 2 a similar view showing night-lamp arrangement with double-pole switch.

1 2 is a main circuit, and 3 4 a branch circuit, of a system of electric lighting, the latter circuit containing incandescing electric lamps
60 A, arranged therein in multiple arc.

In Fig. 1 circuit 3 4 is controlled by a single-pole switch, B, around which is a shunt, 5
65 6, including an incandescing electric lamp, C, and a circuit-controller, *a*, which may be the key of a socket. This is the night-lamp. A second night-lamp is shown in dotted lines,
70 and may be used when the number of lamps A is such that one night-lamp would have a higher incandescence than desired.

In Fig. 2 circuit 3 4 is controlled by a double-pole switch, D, shunted on opposite sides
75 by shunts 5 6 and 7 8, containing night-lamps C C' and circuit-controllers *a a'*. The cross-circuits of lamps A preferably have separate circuit-controllers *b*, so that the number of
80 regular lamps in series with the night-lamp may be regulated or varied by opening more or less of these cross-circuits.

What I claim is—

1. The combination, with an electric lighting-circuit and regular incandescing electric
85 lamps therein in multiple arc, of an incandescing electric lamp employed as a night-lamp and connections for throwing the night-lamp into series with a number of the regular
90 lamps, substantially as set forth.

2. The combination, with an electric lighting-circuit, regular incandescing electric lamps
95 therein in multiple arc, and a switch controlling the regular lamps simultaneously, of an incandescing electric lamp employed as a night-lamp and connections for throwing the

night-lamp into and out of series with the regular lamps automatically by the operation of the switch, substantially as set forth.

3. The combination, with an electric lighting-circuit, regular incandescing electric lamps therein in multiple arc, and a switch controlling the regular lamps simultaneously, of an incandescing electric lamp employed as a night-lamp located in a shunt around the switch, and thrown into series with the regular lamps when the switch is open, substantially as set forth.

4. The combination, with an electric lighting-circuit, regular incandescing electric lamps therein in multiple arc, and a switch controlling the regular lamps simultaneously, of an incandescing electric lamp employed as a night-lamp located in a shunt around the switch, and thrown into series with the regular lamps when the switch is open, and a circuit-controller for making and breaking this shunt, substantially as set forth.

5. The combination, with an electric lighting-circuit, regular incandescing electric lamps therein in multiple arc, and a switch controlling the regular lamps simultaneously, of an

incandescing electric lamp employed as a night-lamp located in a shunt around the switch, and thrown into series with the regular lamps when the switch is open, and separate circuit-controllers for the circuits of the regular lamps, whereby the number in series with night-lamp may be regulated or varied, substantially as set forth.

6. The combination, with an electric lighting-circuit, regular incandescing electric lamps therein in multiple arc, and a switch controlling the regular lamps simultaneously, of an incandescing electric lamp employed as a night-lamp located in a shunt around the switch, and thrown into series with the regular lamps when the switch is open, a circuit-controller in said shunt, and circuit-controllers for the separate lamp-circuits, substantially as set forth.

This specification signed and witnessed this 25th day of November, 1885.

RICHARD N. DYER.

Witnesses:

A. W. KIDDLE,
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