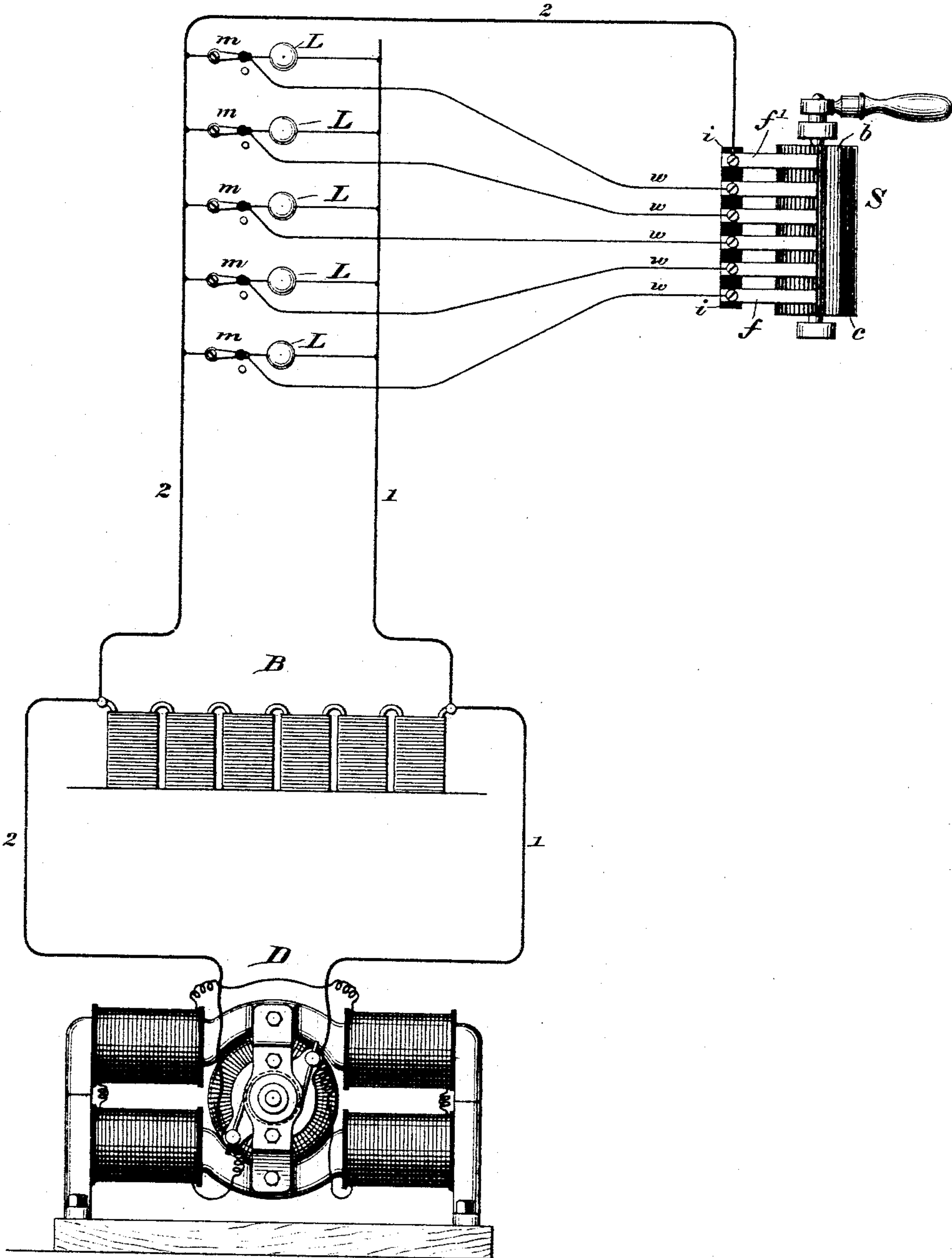


(No Model.)

W. W. GRISCOM.  
ELECTRIC LIGHTING SYSTEM.

No. 389,297.

Patented Sept. 11, 1888.



Witnesses.  
Geo. W. Breck.  
Carrie C. Ashley.

W. W. Griscom, Inventor.  
By his Attorney, J. B. Vassie.



# UNITED STATES PATENT OFFICE.

WILLIAM W. GRISCOM, OF HAVERFORD COLLEGE, PENNSYLVANIA.

## ELECTRIC-LIGHTING SYSTEM.

SPECIFICATION forming part of Letters Patent No. 389,297, dated September 11, 1888.

Application filed June 30, 1888. Serial No. 273,686. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM W. GRISCOM, a citizen of the United States, and a resident of Haverford College, in the county of Montgomery and State of Pennsylvania, have invented certain new and useful Improvements in Electric Lighting, of which the following is a specification.

My invention is an improvement in electric lighting; and it consists of an arrangement of apparatus whereby every light of a series may be simultaneously placed in circuit, at the same time obviating the possibility of breaking the circuit to any particular lamp at the individual switch—that is, the switch assigned to any given lamp.

The object of my invention is to provide for lighting every lamp in an isolated installation from a central point by the use of an apparatus which, when operated, takes the control of such lamps away from the series of individual switches located at the lamps. Thus it is applicable to large auditoriums, as theaters and churches. It is also applicable as an alarm upon the entrance or threatened entrance of an intruder, as a burglar, and also to render it difficult or impossible for such intruder to extinguish the lights individually.

The apparatus devised for this purpose consists of a multiple circuit-closer located at a central point, as in a sleeping-apartment, so arranged that by one movement every lamp is cut into circuit and every individual circuit-closer is cut out. This multiple circuit-closer consists of a cylinder of insulating material, a part of its surface being of conducting material. There are a series of spring-fingers insulated from each other bearing upon the surface of the cylinder. One of these fingers is connected to a wire, forming a common connection with one side of the individual circuit-closers. The remainder of the series of fingers are respectively connected to the other side of said individual circuit-closers by a series of separate wires. When the cylinder of the multiple circuit-closer is rotated to a point where the conducting portion of its surface is in contact with the series of fingers, all these fingers are electrically united, and it results that the lamps are cut into circuit, while each individual circuit-closer is cut out.

The accompanying drawing illustrates my invention.

D is a dynamo.

B is a storage-battery connected to the main leads 1 2, and in parallel circuit with the lamps L. In each lamp-circuit, beside each lamp L, is an individual circuit-breaker, *m*.

S is a multiple circuit-changer. It consists of a cylinder of insulating material *c*, having set into its surface a section of conducting material, *b*. There are a series of fingers, *f*, of conducting material, having one end fixed to a strip of insulating material, *i*. Their free ends rest upon the surface of the cylinder *c*. One of this series of fingers, *f'*, is connected to one main lead, 2, common to one side of the series of individual circuit-closers *m*. A series of wires, *w w*, are connected from the opposite sides of the circuit closers *m*, respectively, to the series of fingers *f*. Normally, the wires 2 and *w w* are all insulated from each other at the circuit-closer S, and the circuit of each lamp is controlled by its individual circuit-closer *m*. It generally happens that all circuit-closers *m* are open when the circuit-changer S is operated; but, however this may be, should the occupant of the sleeping-apartment desire to light every lamp L, he rotates the said cylinder until strip *b* comes into contact with the fingers *f f'*. This closes circuit round the circuit-closers *m m*, and completes the circuit of lamps L via main lead 2, finger *f'*, strip *b*, and wires *w w*. It will thus be seen that every lamp is lighted simultaneously, and that all the circuit-closers *m* are cut out. This renders it difficult or impossible to extinguish the lamps at or near the points where they are located, and creates some surprise or alarm in the mind of the intruder. If it be applied as a burglar-alarm, or if used in a large auditorium, as a theater, it would render it extremely difficult for mischievously-disposed parties to create panic, confusion, or alarm by extinguishing the lights.

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

1. The combination of a source of electrical supply, a series of electric lamps electrically connected thereto, a circuit-closer for each lamp, and a multiple circuit-closer having a series of contacts connected to each lamp-cir-

cuit on opposite sides of said circuit-closers operated by a single continuous movement, whereby the lamps may be included and the individual circuit-closers be excluded with respect to the main circuit, substantially as described.

2. The combination of a source of electrical supply, a series of translating devices electrically connected thereto, a circuit-closer for each translating device, and a multiple circuit-closer having a series of contacts connected to the said circuit upon opposite sides of the circuit-closer assigned to each translating device,

respectively, said circuit-closer being operated by a single continuous movement, whereby the translating devices may be included and the circuit-closer excluded with respect to the main circuit, substantially as described.

Signed at New York city, in the county of New York and State of New York, this 28th day of June, A. D. 1888.

W. W. GRISCOM.

Witnesses:

DANIEL E. DELAVAN,  
WM. B. VANSIZE.