No. 689,198. Patented Dec. 17. 1901.

J. V. A. KIMMEY.

MAKE AND BREAK DEVICE.

(Application filed Mar. 30, 1901.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1.

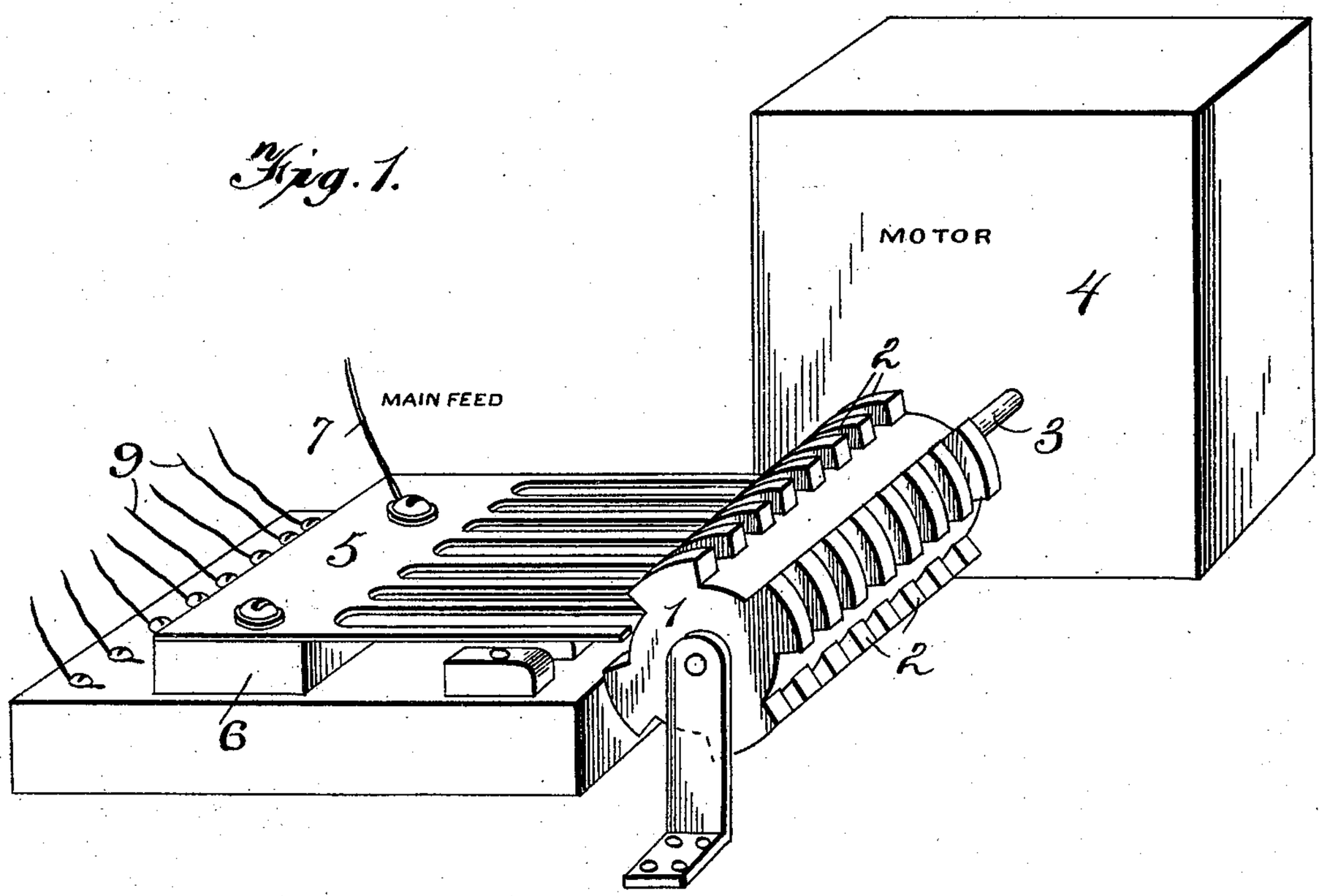


Fig. 2.

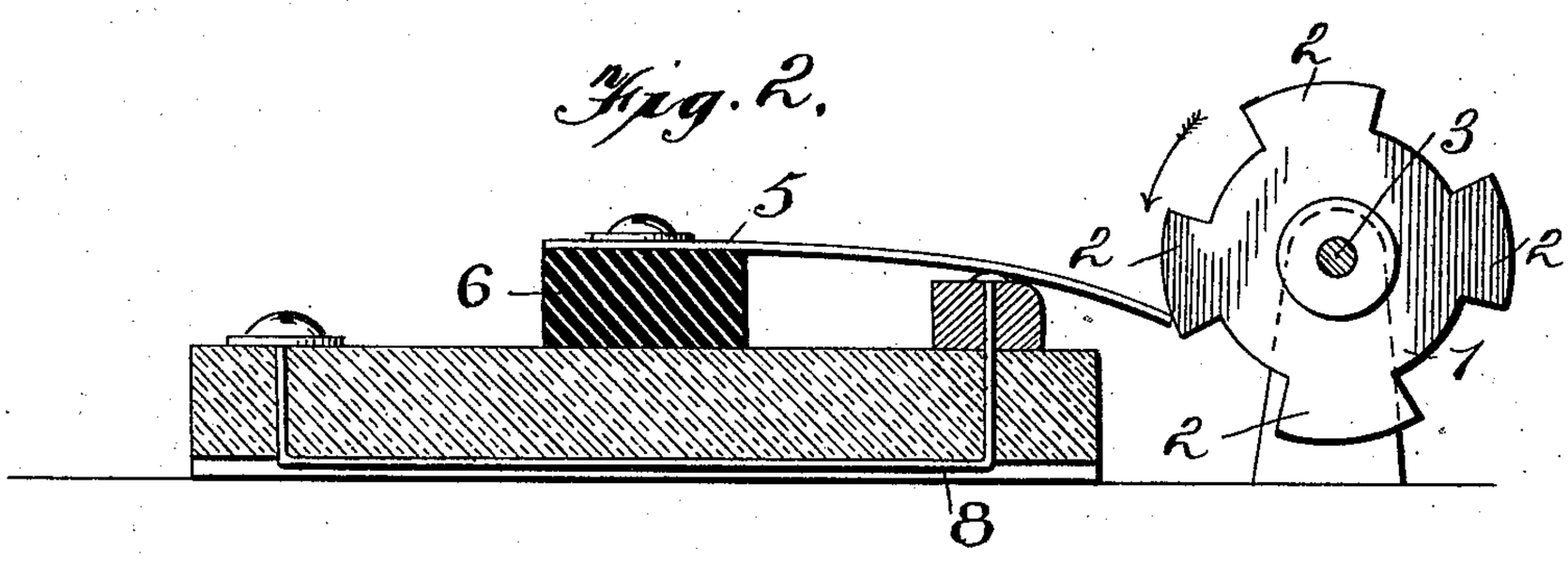
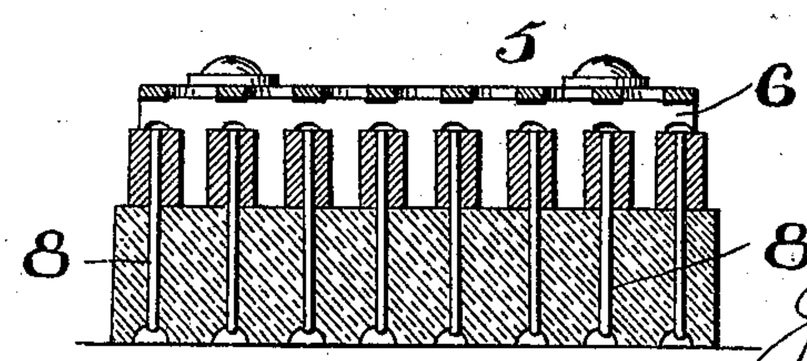


Fig. 3.



Witnesses
Geo. E. Frech.
M. A. Leonard.

Inventor
John V. A. Kimmey.

By Hauser & Robinson Attorneys.

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Fig. 4.

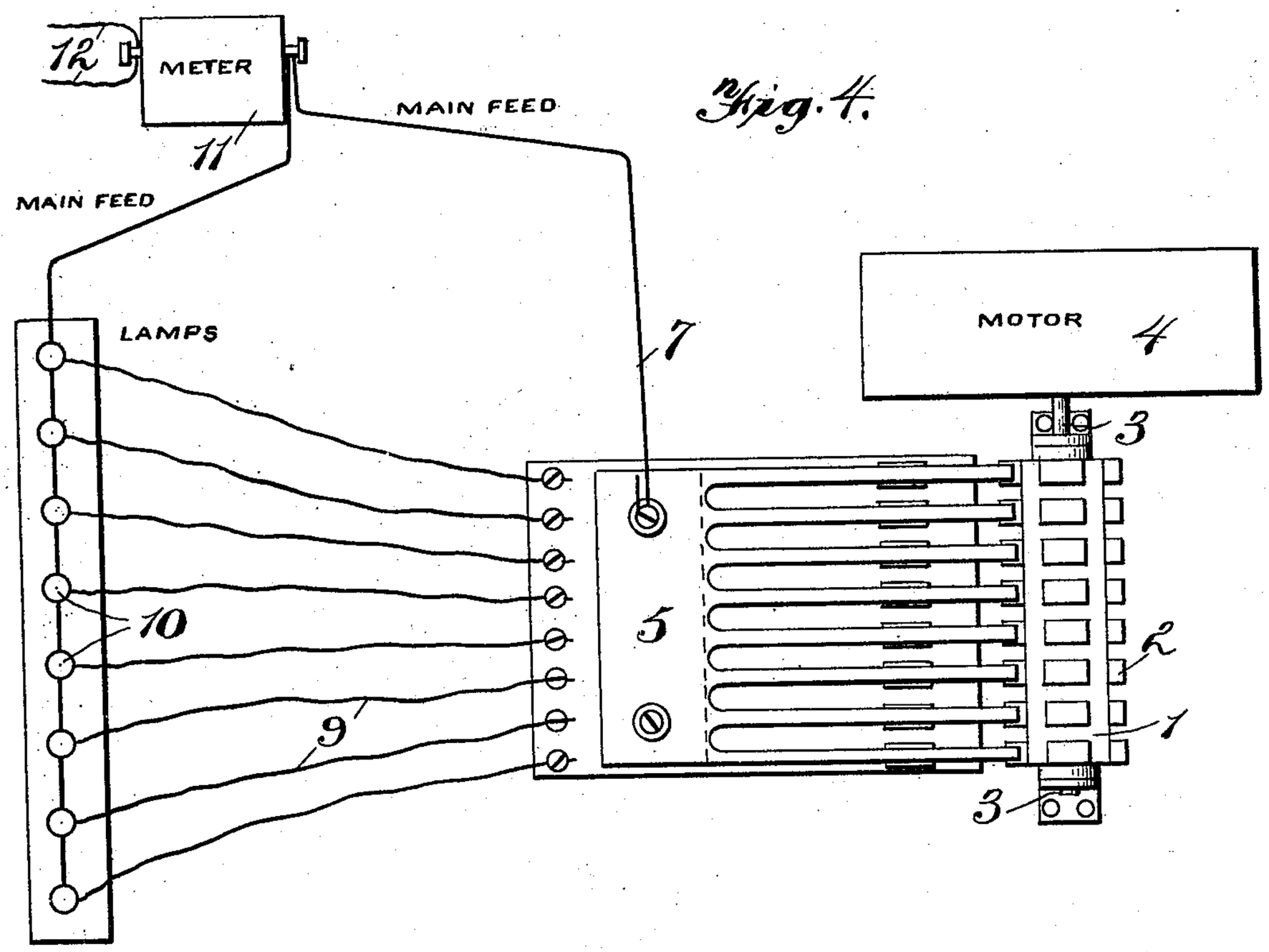
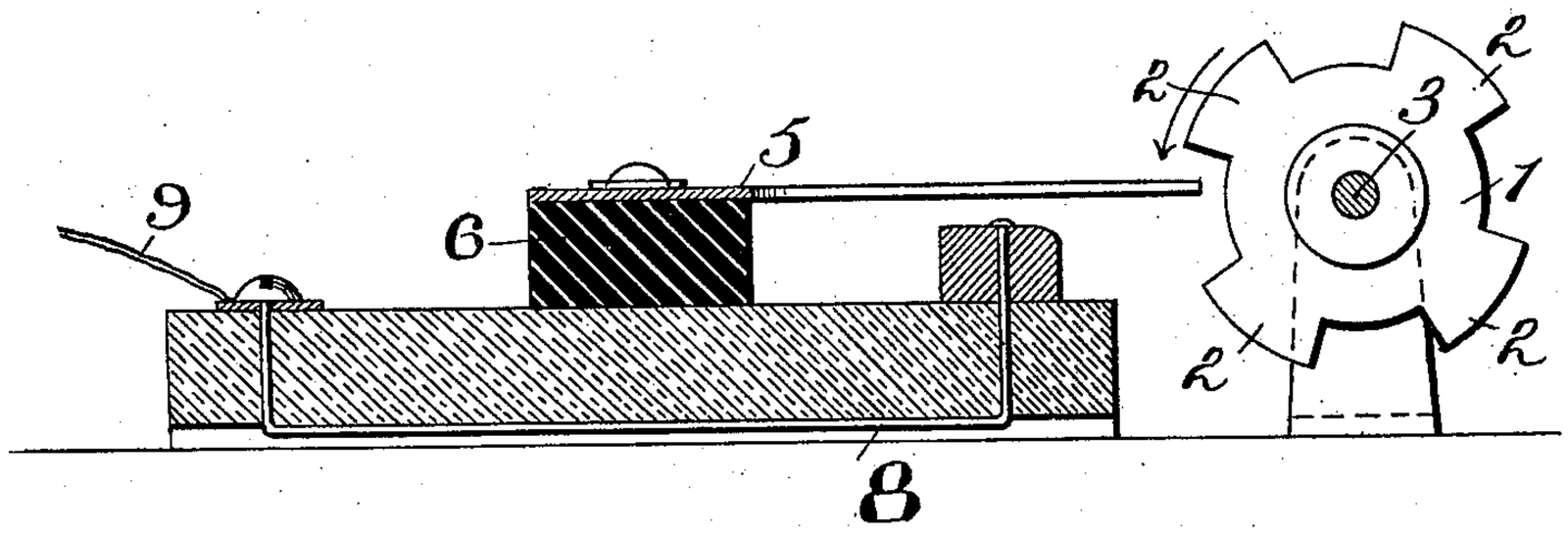


Fig. 5.



Witnesses.
Geo. E. Finch.
M. A. Leonard.

Inventor
John V. A. Kimmey
By Hussey & Robinson, Attorneys.

UNITED STATES PATENT OFFICE.

JOHN V. A. KIMMEY, OF NEW HAVEN, CONNECTICUT.

MAKE-AND-BREAK DEVICE.

SPECIFICATION forming part of Letters Patent No. 689,198, dated December 17, 1901.

Application filed March 30, 1901. Serial No. 53,640. (No model.)

To all whom it may concern:

Be it known that I, JOHN V. A. KIMMEY, a citizen of the United States, residing at New Haven, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Make-and-Break Devices, of which the following is a specification.

My invention has relation to make-and-break devices adapted especially to be used in connection with electric lights; and it consists in the novel construction and arrangement of its parts, as hereinafter described.

The object of the device is to provide a means for automatically making and breaking the current, whereby the lamps may be lighted or extinguished at any predetermined time.

In the accompanying drawings, Figure 1 is a perspective view of the device. Fig. 2 is a longitudinal sectional view of the device, showing the parts in the positions whereby the circuit is made. Fig. 3 is a transverse sectional view of the device. Fig. 4 is a diagrammatic view of the device and its connections. Fig. 5 is a longitudinal sectional view of the device, showing the parts in the positions whereby the circuit is broken.

The device consists of the cylinder 1, which is made of wood, rubber, fiber, or any other non-conducting material. The said cylinder is provided on its periphery with a number of projections or spurs 2 2.

The cylinder 1 is mounted upon the shaft 3, which in turn is suitably journaled in bearings, and one end is suitably attached to the core of a motor 4, or in lieu of said motor a spring-actuated clockworks may be used, if desired.

The metallic comb 5 is attached at its base to the non-conducting block 6, the free ends of the said comb extending toward the cylinder 1. The wire 7 is adapted to conduct the current to the comb 5.

Under each free end of the comb 5 is located the exposed end of a connection 8, said connection being suitably insulated within its supports, there being one connection 8 for each point or end of the comb 5. The rear ends of the said connections 8 are attached to the wires 9 9, which in turn are connected with the lamps 10, (see Fig. 4,) then with the meter 11, and then with the service-wire 12.

In operation the device works as follows: The motor 4 is set in motion and the cylinder 1 is caused to revolve. As this is done the spurs or projections 2 come in contact with the ends of the comb 5 and press the same down in contact with the upper ends of the connections 8. Thus the circuit is completed and the lamp on the circuit of that particular comb-point is illuminated. The current coming from the service-wire 12 to the meter 11, then along the main feed-wire 7 to the comb, then along the point thereof to the connection 8, then to wire 9, to lamp 10, to meter, and to service-wire 12. As the cylinder 1 revolves the spur or projection 2, which holds the comb-point down in the position as shown in Fig. 2, finally passes beyond the end of said comb-point, and the elasticity of the said comb-point causes the same to assume the position as shown in Fig. 5, thus becoming disconnected from the end of the connection, thereby breaking the circuit and extinguishing the lamp.

It will thus be seen that by arranging the spurs or projections 2 on the cylinder 1 the current is completed to the lamps, as desired, and is automatically cut off and makes it possible to have any particular series or combination of lamps illuminated at one or different times.

Having described my invention, what I claim as new, and desire to secure by Letters Patent, is—

An electrical make-and-break device consisting of a revolving cylinder having spurs on its periphery, a comb horizontally located and alined with the center of the cylinder, the ends of the teeth of the comb being within the path of the spurs of the cylinder, said comb and teeth being formed from a single metallic plate whereby the teeth are made springy, an electrical connection beneath each comb-tooth, and suitable electrical conductors.

In testimony whereof I affix my signature in presence of two witnesses.

J. V. A. KIMMEY.

Witnesses:

JOHN B. RATIGAN,

THOS. M. DANIELS.