

No. 652,700.

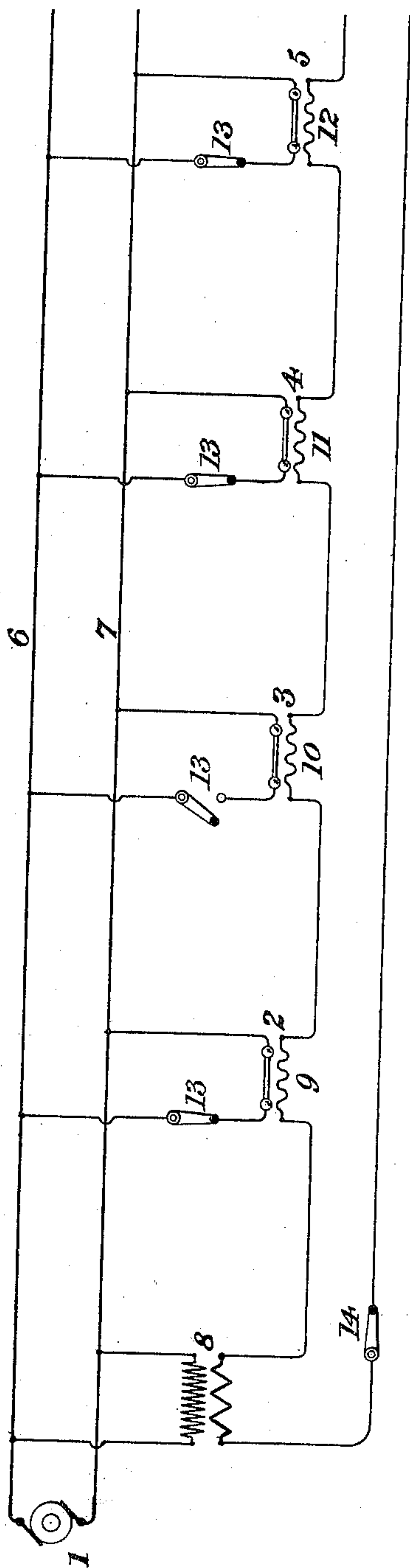
Patented June 26, 1900.

A. J. WURTS.

IGNITING SYSTEM FOR ELECTRIC LAMPS.

(Application filed June 9, 1899. Renewed Jan. 24, 1900.)

(No Model.)



Witnesses:
Raphael Ketter
J. H. Jones

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UNITED STATES PATENT OFFICE.

ALEXANDER JAY WURTS, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR TO
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IGNITING SYSTEM FOR ELECTRIC LAMPS.

SPECIFICATION forming part of Letters Patent No. 652,700, dated June 26, 1900.

Application filed June 9, 1899. Renewed January 24, 1900. Serial No. 2,598. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER JAY WURTS, a citizen of the United States of America, and a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Igniting Systems for Electric Lamps, of which the following is a specification.

I have devised a system for igniting or lighting that class of lamps now known as "Nernst" lamps, my invention being particularly applicable to the igniting of such groups of lamps as are likely to be found in large rooms, halls, factories, and the like. I carry out my invention by arranging the electric heaters which bring the glowers of such lamps to a conductive condition in series near the lamps and provide both the heater-circuit and the individual-lamp circuits with suitable switches or circuit-controllers for closing and opening the circuits. The heater-circuit may be supplied from a separate source or it may derive its current from a converter interposed between the mains which supply the lamps.

By means of my invention it is made possible to remove all automatic devices and moving parts from the lamp structure, thereby leaving no sensitive parts in the lamp to be damaged by the heat developed therein. Such lamps may in my system be run at a much higher efficiency than lamps containing coils or other automatic devices and moving parts which are likely to be injured or destroyed by the great heat present in lamps of this class.

My invention will be clearly understood by reference to the accompanying drawing, which is a diagram of the circuits and apparatus involved in the operations of my system.

In the drawing, 1 is any suitable source of current.

2, 3, 4, and 5 are lamps connected up between the mains 6 and 7, which proceed from the generator 1.

At 8 I show a source of current which may be a converter adapted to feed the heaters of all the lamps. These heaters (shown at 9, 10,

11, and 12) are here arranged in series. In each lamp-circuit is a circuit-controller 13, and in the heater-circuit a circuit-controller 14 is placed.

When the heater-circuit is closed, such lamps as have their lighting-circuits closed will after a very short time light up. If all the lamps have their circuits closed, they will all become luminous; but if the circuits of only a part of the lamps are closed at the circuit-controllers then these only will come into operation. It will be understood that after the heating-circuit has done its work of igniting as many lamps as are in condition for lighting the circuit-controller 14 will be turned so as to open the heater-circuit. If after one or more lamps have been lighted it is desired to light an additional lamp, this may be done by closing its lighting-circuit and again closing the heater-circuit. In this way as many additional lamps may be lighted at a time as may be desired, and in the first instance any selected lamp or lamps can likewise be brought to operative condition by simply closing the lighting-circuits of the selected lamps and then closing the heater-circuit.

The lamps which are illustrated typically at 2, 3, 4, and 5 may be either single-glower lamps or multiple-glower lamps. Should lamps of this class be installed under conditions in which all the members of a group of such lamps were always to be lighted simultaneously, I may dispense with the individual switches, and thus simplify the system still further.

I claim as my invention—

1. In an igniting system for glower-lamps, a generator of electricity and mains proceeding therefrom, two or more lamps connected up between the mains, and individual circuit-controllers for each lamp, in combination with heaters for the said lamps and a heater-circuit common to all the heaters and controlled by a separate circuit-controller.

2. A number of glower-lamps connected up between the mains of an electric-lighting system, a number of heaters arranged in series

in proximity to the said lamps, a circuit-controller for each lamp-circuit and a circuit-controller for the heater-circuit, the said heater-circuit being supplied by any suitable source
5 of current.

3. In an igniting system for glower-lamps, a lighting-circuit including a number of lamps or glowers and an independent heating-circuit containing as many heaters as there are

lamps, and a switch controlling the heater- 10 circuit.

Signed by me at East Pittsburg, Pennsylvania, this 6th day of June, 1899.

ALEXANDER JAY WURTS.

Witnesses:

WESLEY G. CARR,

H. C. TENER.