

N. B. GANTT.
Electric-Lamp.

No. 218,958.

Patented Aug. 26, 1879.

Fig. 1.

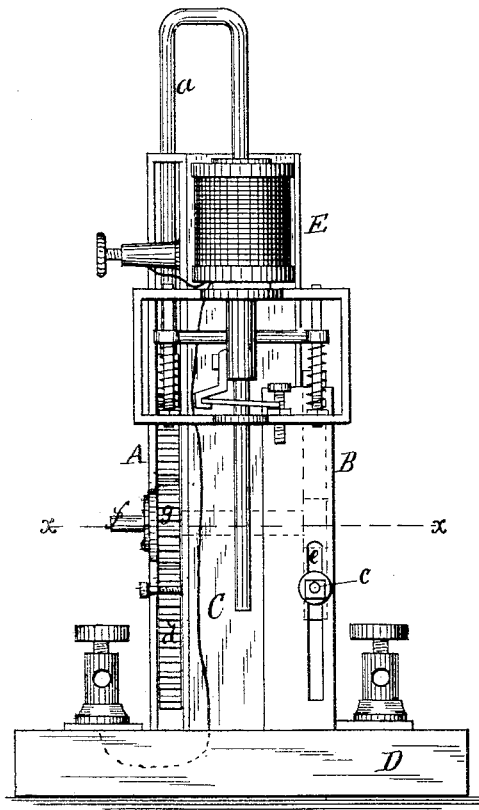


Fig. 2.

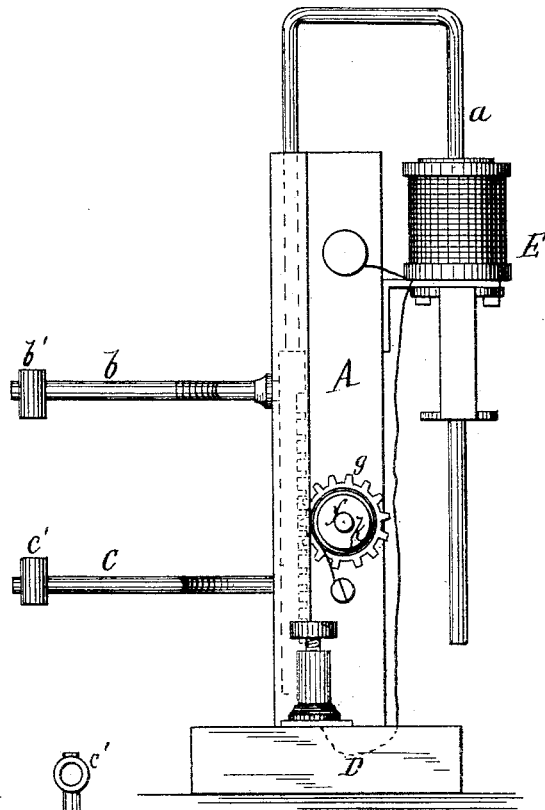
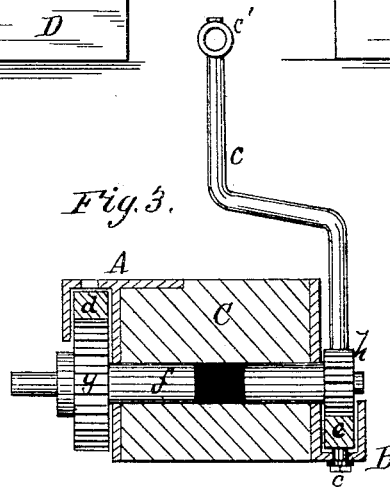


Fig. 3.



WITNESSES:

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NORBORNE B. GANTT, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN ELECTRIC LAMPS.

Specification forming part of Letters Patent No. **218,958**, dated August 26, 1879; application filed March 18, 1879.

To all whom it may concern:

Be it known that I, NORBORNE B. GANTT, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Electric Lamp, of which the following is a specification.

The object of my invention is to furnish a simple, durable, and cheap electric light, adapted for use either as a hanging or standard lamp, and accurately regulated.

The invention relates to the construction and arrangement of the supports for the carbon-holders, whereby, as the carbon burns away, the carbon-holders are automatically adjusted to maintain the electric arc at one point, as more particularly described in connection with the accompanying drawings, wherein—

Figure 1 is an elevation at the back of the lamp. Fig. 2 is a side view. Fig. 3 is a cross-section on line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

The two metallic sides A B of the lamp are insulated by the central portion, C, of non-conducting material, these parts being attached upon a base, D.

The regulator (shown at E) is the Brush regulator, and is shown as connected in a manner to permit the use of the stand as a hanging lamp. For a simple standard-lamp the regulator will be at the top, and its rod *a* straight.

The carbon-holders *b c* are attached upon racks *d e*, respectively. These racks *d e* are fitted in vertical slideways at opposite sides of the lamp, upon the metal portions A B. The holders *b c* extend at the front, and are bent toward the center to bring their sockets *b' c'* into a vertical line with each other. The sockets will be formed, as usual, with clamping and adjusting screws, for holding the carbon pencils and correcting inequalities of burning when necessary.

f is a shaft fitted across the lamp, and having upon its outer ends pinions *g h*, that mesh with racks *d e*. The pinions turn with the shaft, but are insulated from each other.

The rod *a* of the regulator is connected to

rack *d*, so that the movement of *a* will, by pinion *g*, turn shaft *f* and pinion *h* and move the rack *e*. The racks mesh with their pinions in reverse positions, whereby their movement is in opposite directions to bring the holders *b c* to or from each other.

To operate the lamp the rod *a* will be lifted to separate the carbon-holders, and the carbons then put in place. The carbons are then allowed to come together to establish a current, when they will be separated by regulator E and adjusted thereby as required.

As the carbons burn away, the rod and upper carbon-holder descend by gravity, which movement, by the gearing described, gives an upward movement to the lower holder, and the electric arc is retained at the same point at all times. By these means a reflector can be placed behind the carbon points and the center of the arc retained at the center of the reflector.

In most cases it is not desirable to use a reverse current, and the pinion *h* will therefore have only one-half the number of teeth on *g*, so that the lower carbon-holder moves one-half the distance of the upper one.

When used as a standard-lamp the weight of the descending arm will operate the racks, and when fitted for horizontal movement a coiled spring will be fitted to turn shaft *f*, as shown at *k*, or in any other desired manner.

The insulated sides permit the connecting-wires to be placed at any suitable point. It is evident that the motion of the shaft *f* may operate multiple gearing.

By the above-described construction the lamp is rendered simple and durable, and adapted for use in any position, with compensation in every direction, as required.

When used as a hanging lamp, with the carbons placed horizontally, there are no parts to cast shadows.

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

1. An electric lamp having its sides A B insulated from each other by the central portion, C, and fitted with movable carbon-holders, substantially as described and shown.

2. The combination, with the insulated plates A B of an electric lamp, of the insulated shaft *f*, the spring *k*, pinions *g h*, racks *d e*, and carbon-holders *b c*, arranged for operation by the movement of the regulator-rod *a*, substantially as and for the purposes specified.

3. In an electric lamp, the carbon-holders

b c, connected with the insulated sides A B, and bent inward to bring the carbons in line, as set forth.

NORBORNE BEALL GANTT.

Witnesses:

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JARRETT BULL.