

(No Model.)

2 Sheets—Sheet 1.

J. NORTNEY & F. SCHEFOLD.  
ELECTRIC LAMP SUPPORT.

No. 497,200.

Patented May 9, 1893.

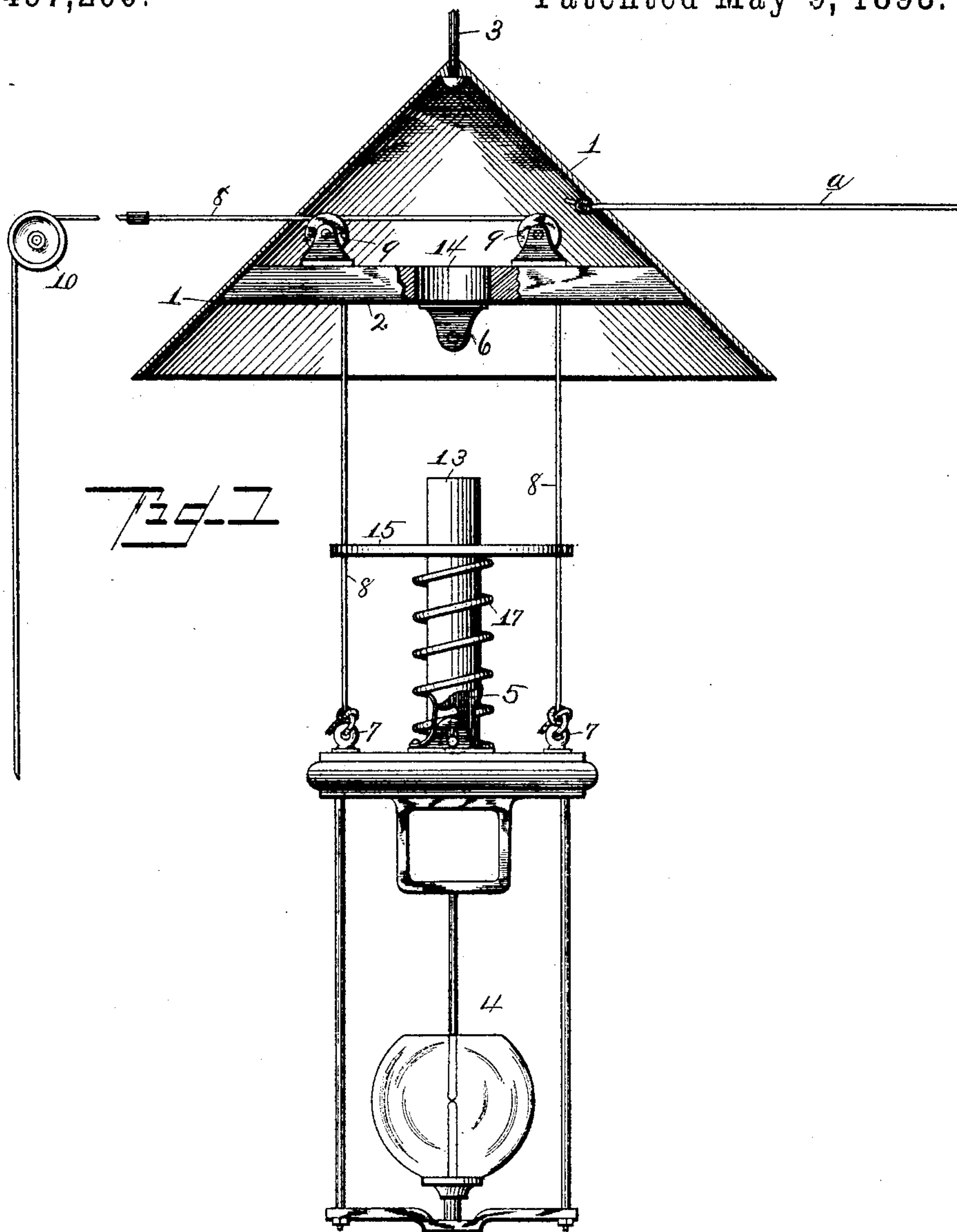


Fig. 1

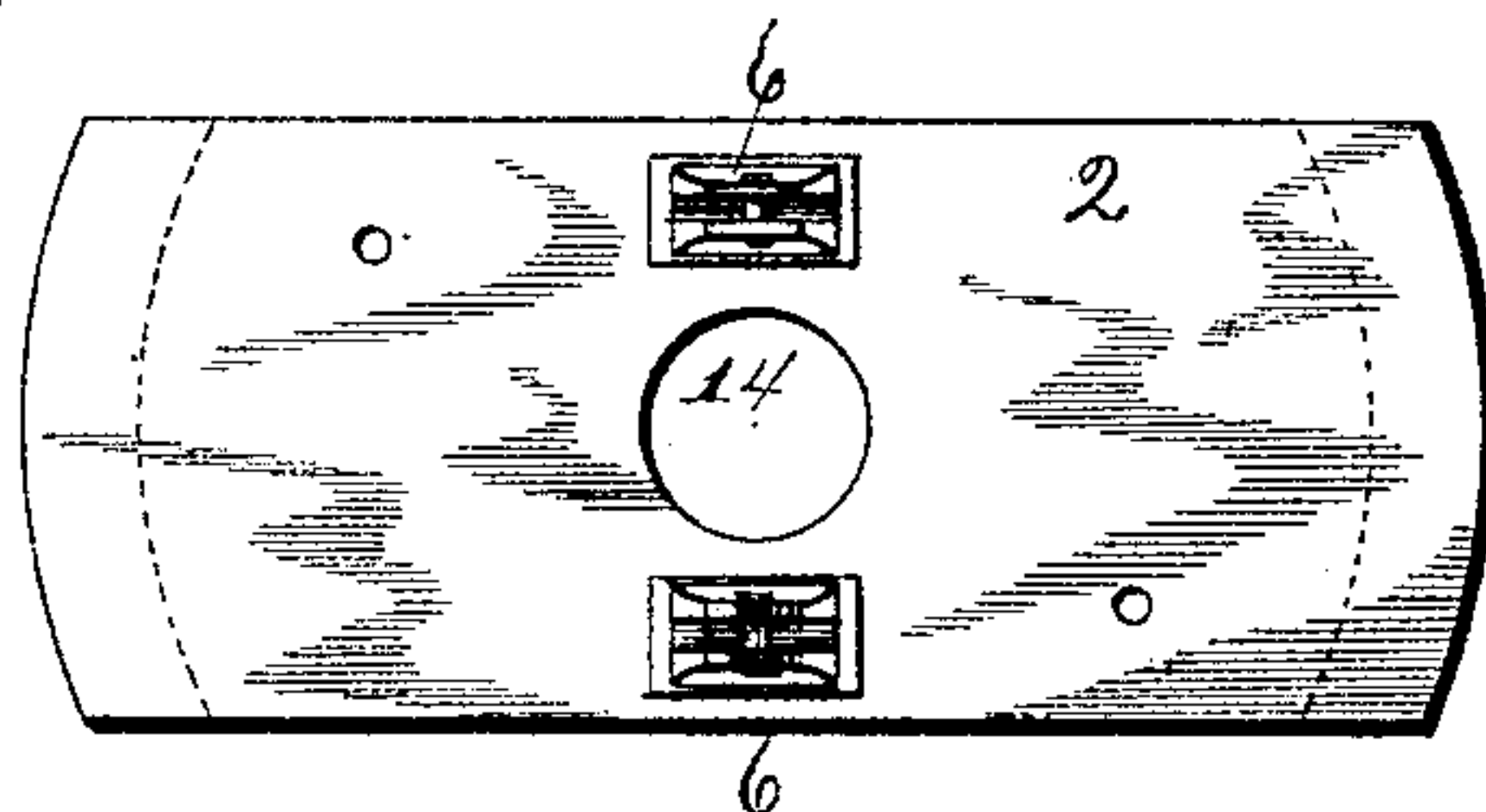


Fig. 2

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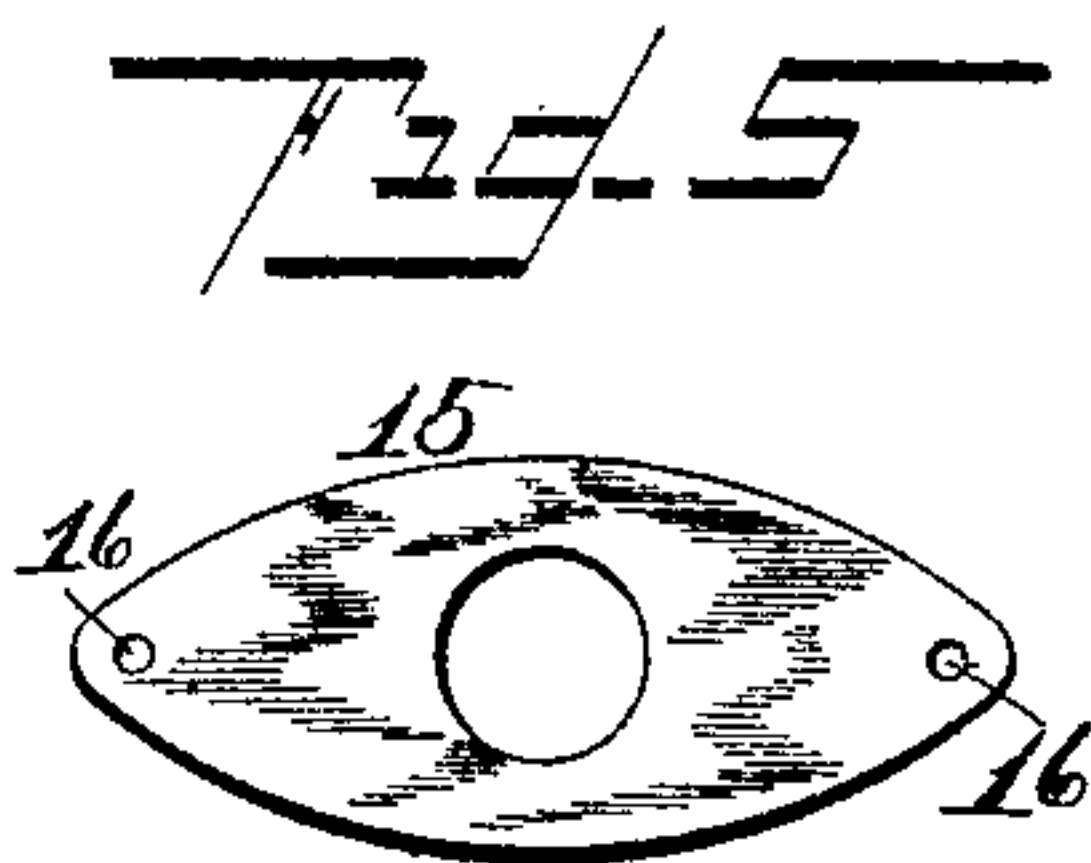
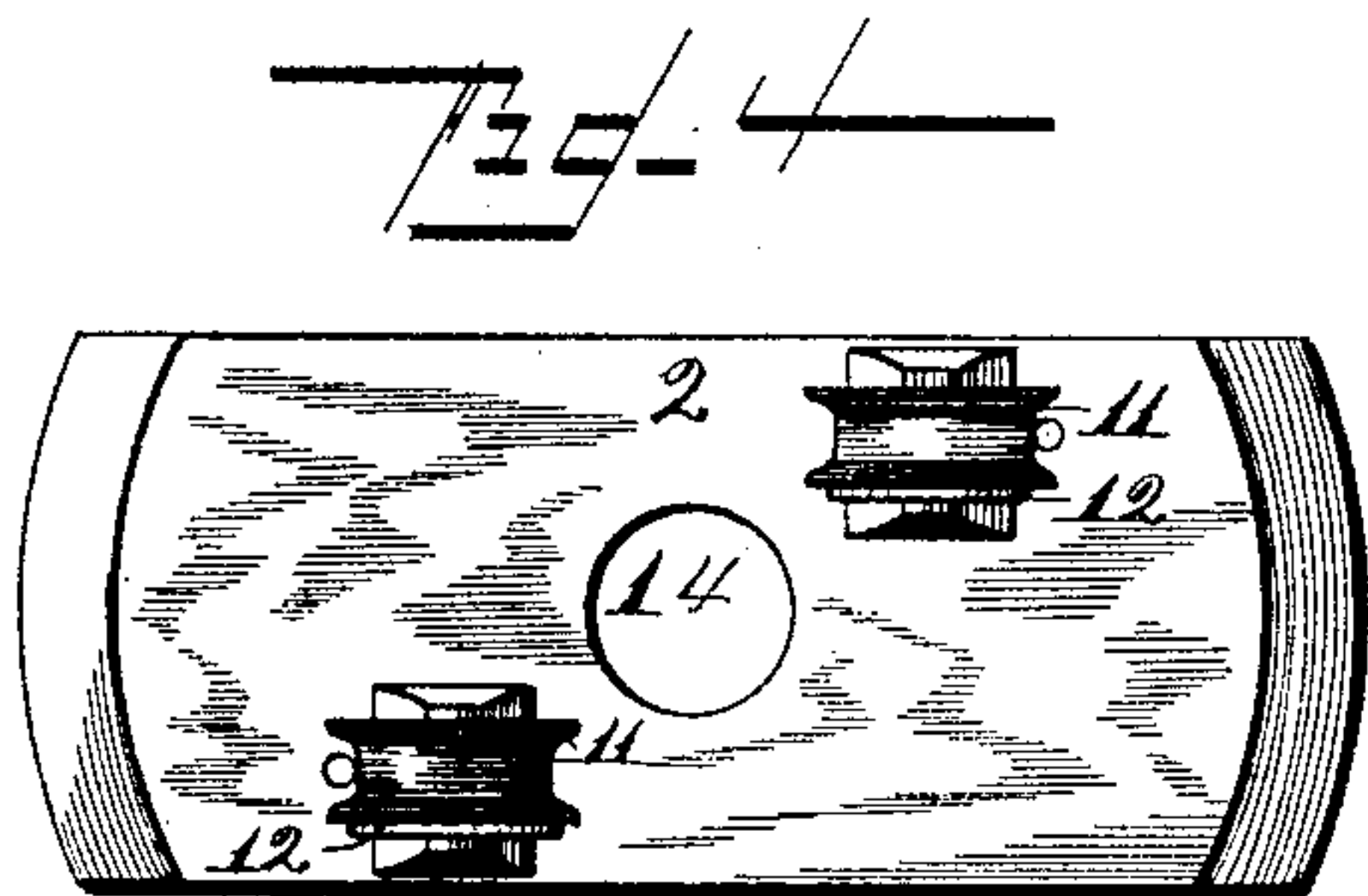
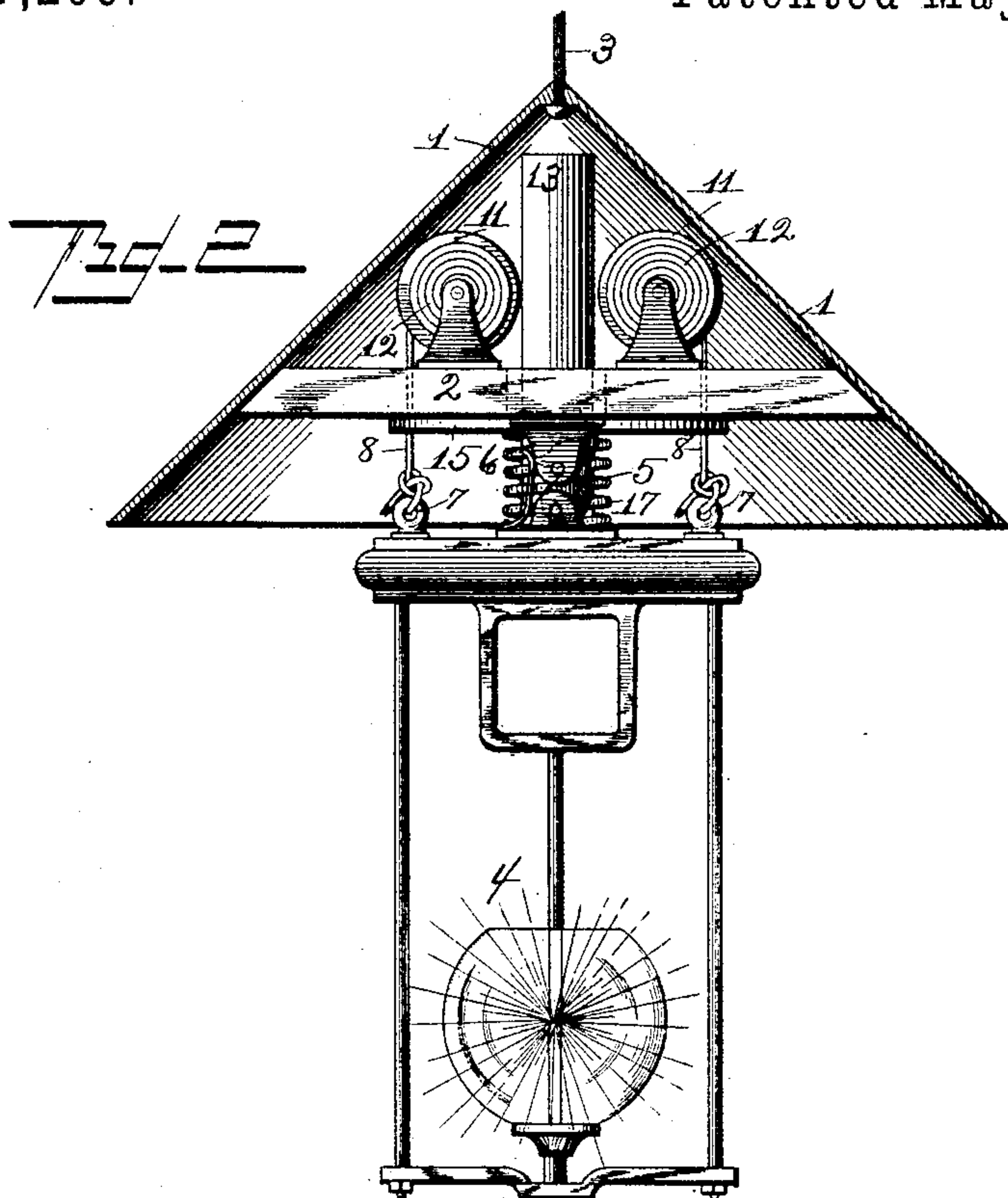
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2 Sheets—Sheet 2.

J. NORTNEY & F. SCHEFOLD.  
ELECTRIC LAMP SUPPORT.

No. 497,200.

Patented May 9, 1893.



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# UNITED STATES PATENT OFFICE.

JAMES NORTNEY AND FRANK SCHEFOLD, OF NEW ALBANY, INDIANA.

## ELECTRIC-LAMP SUPPORT.

SPECIFICATION forming part of Letters Patent No. 497,200, dated May 9, 1893.

Application filed December 22, 1892. Serial No. 456,028. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES NORTNEY and FRANK SCHEFOLD, both of New Albany, county of Floyd, and State of Indiana, have invented certain new and useful Improvements in Electric-Lamp Supports, of which the following is a specification, reference being had to the accompanying drawings.

The object of our invention is to produce improved supports for electric lamps, especially the heavy kinds which are used for arc light currents.

Our invention consists in certain improvements upon the mechanism shown in our application for patent, Serial No. 449,276, filed October 18, 1892; and also in certain improved mechanism for raising and lowering arc lamps generally.

In the accompanying drawings, Figure 1 is a side elevation of an arc lamp suspended from a reflector or shade, showing the latter in central vertical section, and the lamp proper partially lowered. Fig. 2 is a similar view, showing spring-actuated elevators, and showing the lamp proper in the suspended position. Fig. 3 is a bottom plan view of the switch-board detached; and Fig. 4 a top plan view thereof. Fig. 5 is a similar view of the switch-board shown in Fig. 2.

Referring to the figures on the drawings, 1 indicates a suitable support, as for example a reflector, screen, or shade.

2 indicates a switch-board fixedly secured by any suitable means thereto.

3 indicates a suspending cord or the like.

4 indicates an arc lamp which carries upon its top movable hooks 5 adapted to engage with and release contact-making and breaking supports 6. The hooks and the contact-making and breaking supports are the same as those shown and described in our application above referred to, and require only incidental mention here.

7 indicates eyelets upon opposite sides of the lamp, to which pulley-ropes 8 are attached for raising and lowering the lamp. These ropes may pass over pulleys 9 and be raised and lowered as in the ordinary manner over a guide pulley 10; or, as we prefer, they may be wound upon spring-actuated pulleys 11.

In the drawings coiled springs 12 are shown as the form of actuating springs, but any suit-

able substitute therefor may be used. When the ordinary pulley ropes are used a guy *a* must be employed to steady the lamp-support and counterbalance the strain upon the pulley ropes as they are employed in raising and lowering the lamp. By the employment of the spring-actuated pulleys the necessity for the use of all side wires is dispensed with, and a much neater effect in practice may be secured.

13 indicates the head of the lamp, which, in practice, in order to effect connection between the hooks and their supports, must pass through the aperture 14 into the top of the reflector. It will be observed that the supports are necessarily located a short distance apart. The diameter of the aperture 14 is therefore limited, and it is necessary for practical convenience to employ head-guiding mechanism to insure the passage of the head through the aperture in the switch-board. The mechanism which we prefer to employ for that purpose consists of a guide-board or plate 15 having apertures 16 for the passage of the pulley-ropes 8, and a central aperture for receiving and guiding the head. The guide board is kept yieldingly normally elevated, as by a spiral spring 17. It will be perceived that a sufficient pull upon the pulley ropes will depress the guide-board after it has insured the entrance of the head into the aperture in the switch-board, compressing the spring until the hooks have engaged with their supports as required.

As will more fully appear upon reference to our application above referred to, it is necessary that the hooks, after engagement with the supports, shall become loosened from their bearings. Ordinarily the weight of the lamp, after the release of the pulley-ropes, is ample for this purpose. By the employment of spring-actuated pulleys, however, special provision must be made for accomplishing the same result. In this connection the spring serves the double purpose of yieldingly supporting the guide-board, and afterward for counteracting the force of the spring-actuated pulleys sufficiently to operate the hooks and the supports.

In operating our device the mode of procedure is in all respects similar to that described in our former application, the guide-board acting in the manner heretofore



set forth in guiding the head through the aperture in the switch-board. In operating the lamp suspended from spring-actuated pulleys, assuming the parts to be in the relative position shown in Fig. 2, the operator lifts the lamp until the hooks drop free from their supports, and then pulls it down against the force of the springs 12. In restoring the lamp to its former position, after it has been pulled down, a light push upon the lamp is sufficient to set the springs in motion and impart momentum to it enough to compress the spring 17 and engage the hooks upon the supports. Thereupon the springs 12, acting in the manner above described, operate the hooks and supports to switch the current.

We desire to distinctly state that we do not intend to limit ourselves to the details of construction herein shown and described; but reserve the right to modify or vary them within the scope of our invention.

What we claim is--

1. The combination with an electric lamp having a head and a support from which it is movably suspended, of a switch-board fastened to the support, an aperture in the switch-board, and head-guiding mechanism upon the lamp, substantially as set forth.

2. The combination with a support, electric lamp having a head and pulley ropes adapted to raise and lower the lamp, of a switch-board having an aperture fastened to the support, head-guiding mechanism upon the lamp con-

sisting of a guide board pierced to receive the head and pulley-ropes, and mechanism for yieldingly supporting the guide-board in proximity to the top of the head, substantially as and for the purpose specified.

3. In combination with a support, arc lamp having a head and pulley ropes adapted to raise and lower the lamp to and from the support, of a switch-board fastened to the support having an aperture therein, contact-making and breaking supports, hooks upon the switch-board and top of the lamp respectively, and head guiding mechanism upon the lamp adapted to guide the head of the lamp through the aperture in the switch-board, substantially as and for the purpose specified.

4. The combination with a support, spring-actuated pulleys pulley-ropes and arc lamp, of contact-making and breaking supports and hooks upon the support and the lamp respectively, and a spring carried upon the lamp and adapted to exert a counter influence against the force of the spring-actuated pulleys to make contact through the contact-making supports, and hooks, substantially in the manner and for the purpose described.

In testimony of all which we have hereunto subscribed our names.

JAMES NORTNEY.  
FRANK SCHEFOLD.

Witnesses:

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M. D. CONDIFF.