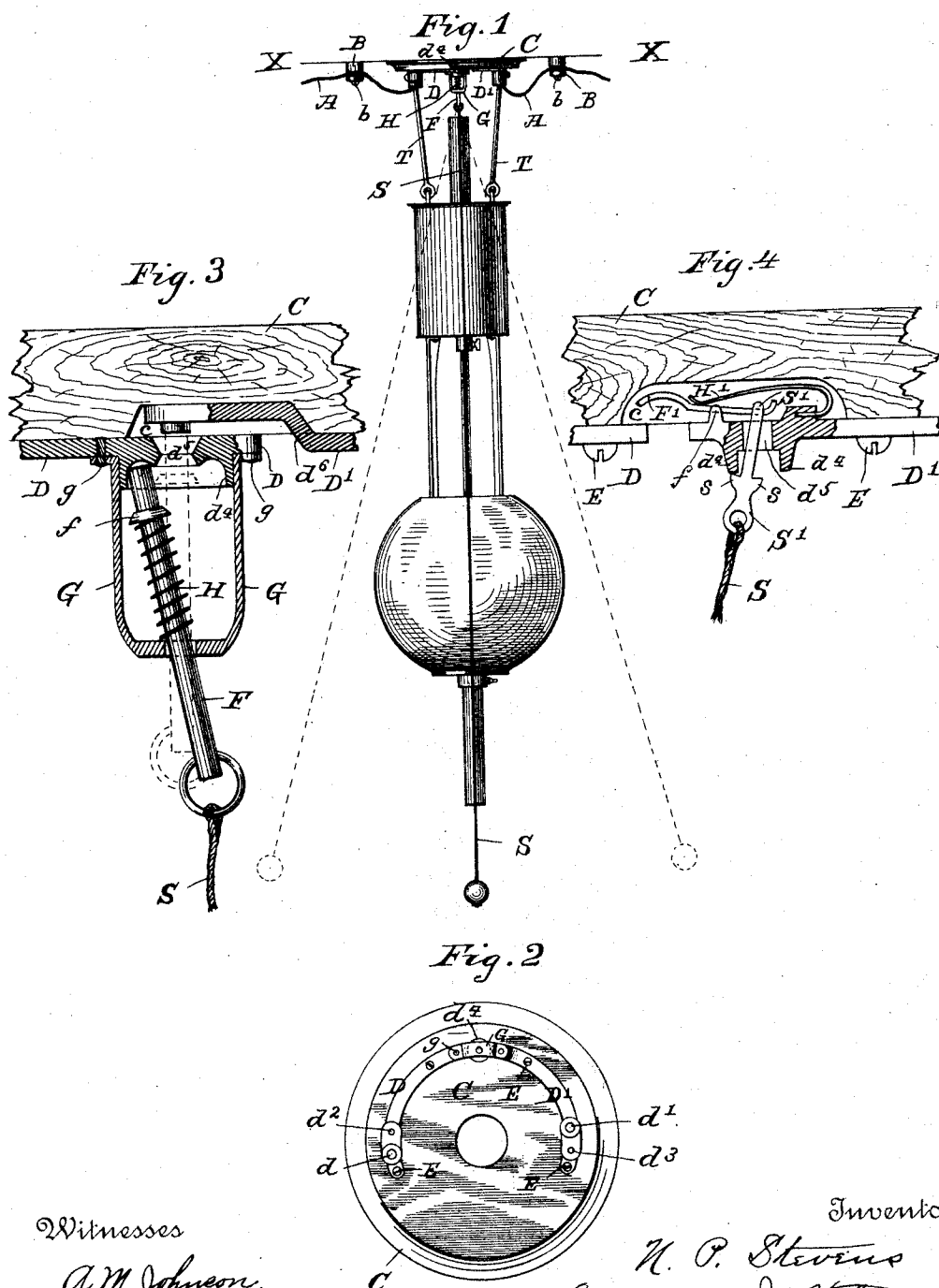


(No Model.)

N. P. STEVENS.
CUT-OUT.

No. 428,358.

Patented May 20, 1890.



Witnesses
A. M. Johnson.
W. S. Hove

Inventor
N. P. Stevens
By his Attorney J. B. Thurston

UNITED STATES PATENT OFFICE.

NATHAN P. STEVENS, OF CONCORD, NEW HAMPSHIRE.

CUT-OUT.

SPECIFICATION forming part of Letters Patent No. 428,358, dated May 20, 1890.

Application filed November 15, 1889. Serial No. 330,476. (No model.)

To all whom it may concern:

Be it known that I, NATHAN P. STEVENS, a citizen of the United States, residing at Concord, in the county of Merrimac and State of New Hampshire, have invented certain new and useful Improvements in Switches or Cut-Outs for Lamp Hanging-Boards, of which the following is a specification.

The object of this invention is to provide a suitable switch for applying or cutting out the electric current, which shall be operated by a single cord or wire, and when using the invention in connection with electric lamps it is found much more convenient than to use a pole.

The invention will be readily understood by reference to the accompanying drawings, forming a part of the following specification and claim, which clearly set forth the same.

Figure 1 represents an ordinary arc lamp suspended from a hanging-board to which my improvements are attached. Fig. 2 is a plan view showing the under side of the hanging-board on an enlarged scale provided with my improvements. Fig. 3 is a sectional elevation showing a portion of the hanging-board and my improved switch mechanism. Fig. 4 is a similar view representing a simple modification of my invention.

Similar letters designate like parts.

A A are the conducting-wires, supported by knobs B B, which are secured by screws *b b* to the ceiling. (Represented by the line X.) The hanging-board C is also secured to the ceiling, and to this are attached the bars D D' by means of ordinary wood-screws E. Near one end of each of said bars are formed suitable sockets *d d'*, respectively, for receiving the upper end of either rod T, which support and connect the lamp with the hanging-board C, as seen in Fig. 1, and near these sockets are seen sockets *d² d³*, respectively, in which are inserted the ends of the conducting-wires A A. The opposite ends of the bars D D' are connected or disconnected by a suitable switching device adapted to be operated by a single cord S.

In the drawings I show two forms of devices, each adapted for lighting or extinguishing the lamp by means of a single cord.

In Fig. 3 the adjacent ends of the bars D

D' overlap each other, one above the other, an offset being formed at *d⁶* in the bar D', and its end let into a groove *c*, formed for the purpose in the hanging-board C and extending over the end of said bar D, which is provided with a circular flange *d⁴*, having a central and preferably countersunk orifice *d⁵* for admitting the upper end of a switch or cut-out bar F, forming contact with the bar D', as shown in dotted lines, the said switch-bar in this instance moving vertically within a yoke G, which may be formed integral with or attached at *g g* to the said bar D. The said switch-bar F is made to bear upon either the bar D or D' by a helical spring H, operating expansively between a pin or collar *f* upon said switch-bar and the said yoke G. By pulling the cord S at an angle in either direction, as shown by dotted lines in Fig. 1, the said switch-bar F is lodged at either side of the orifice *d⁵* of the bar D, and the current is thus passed through the lamp; but by pulling the cord straight or in a vertical line, as shown by full lines in Fig. 1, the switch-bar is again permitted to enter the orifice *d⁵* and bear upon the bar D', thus connecting the latter with the bar D, and again cutting out the current to the lamp.

In Fig. 4 the same results are accomplished by means of a rocker arm or switch F', fulcrumed at *f'* to the bar D', and a spring H', bearing thereon in a manner to cause one of its ends to form contact with the bar D, the opposite end of said rocker or switch being connected with one end of the link S', to which the cord S is attached, said link resting in the orifice *d⁵* of the bar D', and having projections *s*, which, when the cord is pulled at an angle, will hook over the flange *d⁴*, and thus cause the current to pass down through one of the rods T, thence through the lamp, and up through the other rod T, in order to pass from one to another of the bars D D'.

Having described my invention, what I claim as new is—

In a switch or cut-out, the overlapping bars, to which are connected the conducting-wires, one of said overlapping bars having a perforation near one end, and a yoke mounted thereon, having a perforation opposite to that in said overlapping bar, a spring-actuated

bar loosely mounted therein, and a single
pull-cord attached to the latter, whereby said
spring-actuated bar may be lodged at either
side of the perforation in said overlapping
5 bar, or passed through said perforation and
rest upon the other overlapping bar, all sub-
stantially for the purpose set forth.

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

NATHAN P. STEVENS.

Witnesses:

J. B. THURSTON,

J. E. FERNALD.