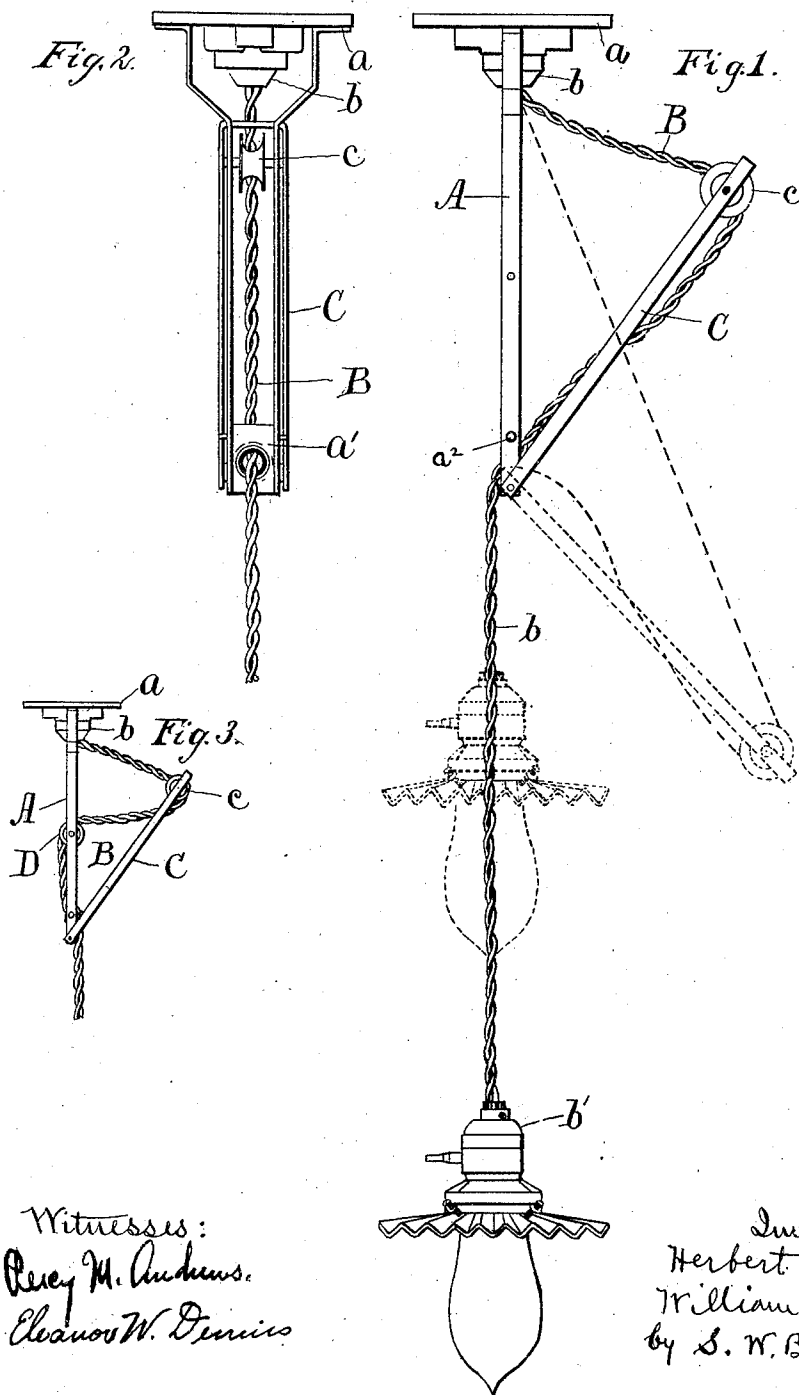


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ADJUSTABLE SUPPORT FOR HANGING LAMPS.
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972,170.

Patented Oct. 11, 1910.



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UNITED STATES PATENT OFFICE.

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ADJUSTABLE SUPPORT FOR HANGING LAMPS.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, HERBERT E. DREW and WILLIAM P. CARROLL, citizens of the United States of America, and residents of Portland, in the county of Cumberland, State of Maine, have invented certain new and useful Improvements in Adjustable Supports for Hanging Lamps, of which the following is a specification.

Our invention relates to vertically adjustable supports for hanging lamps.

The invention is designed particularly to be used for supporting incandescent electric lamps where it is desirable that the same be raised and lowered quickly and conveniently. Such lamps are used by dentists, machinists, and others and it is important that they be vertically adjusted quickly and easily.

According to our invention, we provide an inverted standard which is adapted to be secured by its base to the ceiling. Pivoted to the lower portion of the standard is an arm with an antifriction guide at its outer portion. The lamp cord is threaded through a friction opening in the standard and thence over the antifriction guide on the arm and it is secured to the top of the bracket. The friction is so adjusted that when the weight of the lamp is on, the arm will stay in position but when the lamp is lifted the weight of the arm will be sufficient to draw the cord through the friction opening.

We illustrate our invention by means of the apparatus shown in the accompanying drawing although it is to be understood that modifications may be made in the construction of the machine without departing from the invention.

In the drawing, Figure 1 is a side elevation of one form of our device, Fig. 2 is an elevation taken at right angles to that shown in Fig. 1, and Fig. 3 is a modified form adapted to heavier lamps.

Considering Figs. 1 and 2, A represents an inverted standard having a base *a* adapted to be secured to the ceiling. The standard as here shown is made up of parallel side bars and between the upper ends of these bars is the cord socket *b* secured to the under side of the plate *a*. The cord B is secured to the socket in the usual way and extends down between the side bars of the standard. The slack of the cord B is taken up and the vertical adjustment secured by means of an

arm C pivoted by one end to the lower portion of the standard A. As shown the arm C is made up of two parallel side bars each of which is pivoted to one of the side bars of the standard. The outer portion of the arm C is provided with an antifriction guide adapted to guide the cord around the end of the arm with the least possible friction and as shown we provide a grooved roll *c* which is journaled between the side bars at or near the outer end of the arm C. A friction opening through which the cord is threaded, is provided in the standard and as here shown we make use of a friction block *a'* secured between the side bars at the lower end of the standard. This block has a friction opening passing through it and adapted to admit the passage of the cord and the block also serves as a connecting joint between the standard and the arm. A lamp *b'* is shown as secured to the lower end of the cord and the cord as here shown passes first through the opening in the block, thence over the roll *c* and is finally secured to the socket *b*. The arm C is made of heavy material or it is sufficiently weighted so that when the lamp is lifted and its weight removed from the cord, the weight of the arm will be sufficient to cause it to fall and thus pull the slack of the cord through the block *a'*. When the lamp is allowed to hang on the cord its weight will increase the friction to such an extent at the friction opening through the block *a'* that the arm C will remain in position until the lamp is again either lowered or lifted. The dotted lines in Fig. 1 show one of the numerous positions which the arm C may take and as will be seen the arm has a considerable range of motion. A stop *a²* is provided on one or both of the side bars of the standard, against which the arm B strikes when at its upper position and the upper position of the bar is somewhat inclined to the vertical so that it is always ready to start downward when the lamp is lifted. The rise and fall of the lamp varies as the distance of the roll from the socket *a* and the range of motion of the arm represents the range of vertical adjustment of the lamp.

When an unusually heavy lamp is used provision is made for an increased amount of friction between the cord and the standard. This may be effected in a variety of ways and in Fig. 3 we have shown one of the ways of creating more friction. In Fig. 3 the parts are the same as in the other

form shown but a second roll as D is journaled in the standard between the lower and upper ends. The cord then passes through the friction opening *e'*, thence over the roll D and around the roll *c* and up to the socket. This arrangement produces somewhat more friction between the cord and the standard and enables the cord to sustain a heavier load without slipping.

The arm as stated may be weighted to give the requisite amount of pull to draw up the slack cord when the cord is of unusual length and it is to be understood that the device may if desired, be used for a gas light with a flexible tube or for any similar purpose.

We claim;—

1. In an adjustable support for hanging lamps, the combination of an inverted standard adapted to be secured to the ceiling, an adjusting arm pivoted on said standard and having an antifriction guide at a point distant from the pivoting point, a friction block on the standard and a flexible supporting member extending through said block, around said antifriction guide and secured at the upper end of the standard.

2. In an adjustable support for hanging lamps the combination of an inverted bracket having two parallel side bars and adapted to be secured to the ceiling, an adjusting arm composed of two parallel side bars each pivoted to one of the side bars of the standard and having an antifriction roll journaled between said side bars at a distance from the pivoting point, a friction block secured between the side bars of the standard and a flexible supporting member

extending through said friction block around said roll and secured to the upper end of the standard.

3. In an adjustable support for hanging lamps, the combination of an inverted standard adapted to be secured to the ceiling and having a friction opening at its lower portion, an adjusting arm pivoted to the lower portion of the standard, an antifriction guide at the outer portion of said arm and a flexible supporting member extending through the friction opening, over the antifriction guide and secured to the upper end of the standard.

4. In an adjustable support for hanging lamps the combination of an inverted standard comprising a base plate, a pair of parallel side bars secured to the under side of said base plate, a friction block secured between the lower ends of said side bars and having a friction opening therein, an arm composed of two parallel side bars each of which is pivoted to the lower end of the side bars of said standard, an antifriction roll journaled between the outer ends of the side bars of the arm, a cord socket secured to the under side of the base plate between the side arms, and a flexible cord extending through said friction opening over the antifriction roll and secured to said socket.

In witness whereof we have hereunto set our hands this 31st day of March, 1910.

HERBERT E. DREW.
WILLIAM P. CARROLL.

Witnesses:

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