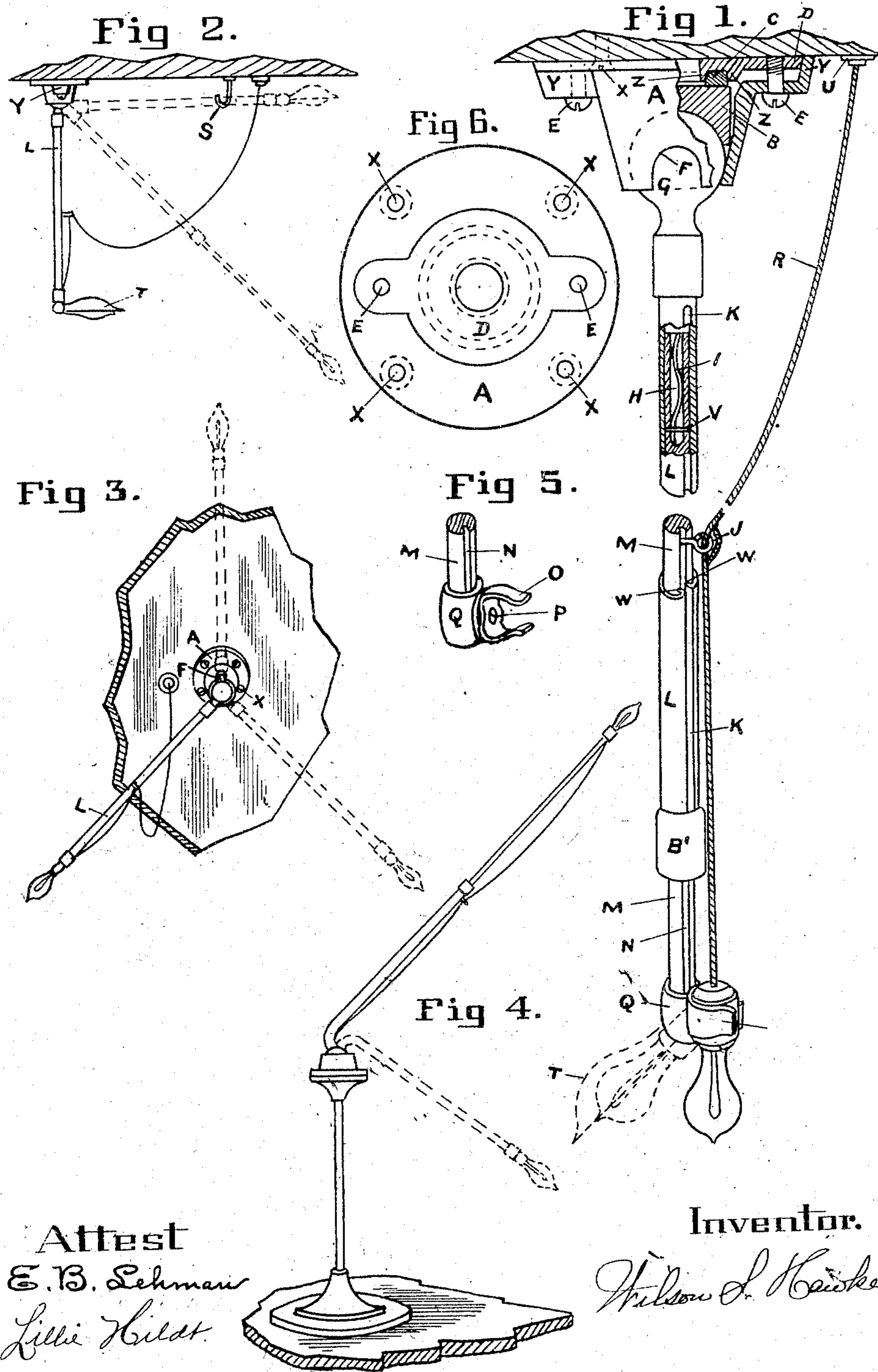


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PATENTED AUG. 27, 1907.

W. S. HAWKER.
ELECTRIC LAMP ADJUSTER.
APPLICATION FILED DEC. 1, 1905.



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ELECTRIC-LAMP ADJUSTER.

No. 864,535.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILSON S. HAWKER, a citizen of the United States, residing at Dayton, in the county of Montgomery and State of Ohio, have invented a new and useful Electric-Lamp Adjuster, thereby giving better lighting results and facilitating any work by artificial light to which it may be applied.

Following is a specification.

My invention relates to improvements in lamp supports, and particularly to adjustable lamp supports for use with incandescent electric lamps, but which may be used with other devices.

The object of the invention is to simplify the construction as well as the means and mode of operation of such devices whereby they are not only cheapened in construction, but are rendered more efficient in use and unlikely to get out of repair.

A further object is to provide a construction wherein the adjustable arm will be reinforced in such a manner that the arm will be greatly strengthened and stiffened while permitting it to be constructed of comparatively light weight material.

A further object is to provide a universal connection for said arm having an improved frictional retaining device, and means for regulating the same, an extendible section for said arm adapted to insulate the lamp from the support and an improved frictional engaging device for holding the extendible arm in its adjusted position.

A further object is to provide a construction in which the supporting arm may be moved to a position substantially parallel with the side wall or ceiling to which it may be attached.

With the above primary and other incidental objects in view, as will appear from the specification, the invention consists of the construction, the parts, and the combination and arrangement thereof, hereinafter described and set forth in the claims.

Referring to the accompanying drawings, Figure 1 is a perspective view partly broken away showing the device attached to the ceiling. Fig. 2 is a view showing the range of adjustment from perpendicular to horizontal and the extension of the extendible section. Fig. 3 is a perspective view showing the device attached to a side wall, and its range of adjustment. Fig. 4 is a perspective view of the device as attached to a pedestal or portable floor stand. Fig. 5 is a perspective view of the swivel lamp clip for securing the lamp to the adjustable arm. Fig. 6 is a bottom plan view of the socket member.

Like parts are indicated by similar characters of reference throughout the several views.

Referring by letter to the drawings, A represents a socket member engaging the spherical head G of the

supporting arm L hereinafter described. Located with the socket member A and bearing on the spherical head G is a frictional bearing or brake block B of wood or fiber.

The socket member A is provided with a compression plate D adjustable in its relation to the socket A by means of screws E E. Interposed between the plate D and the bearing block B is a layer or strip of resilient material C, preferably rubber, by which the block B is held in yielding engagement with the spherical head G, permitting a movement of the block B to compensate for any irregularity of the said head G. The pressure or tension of the parts is adjusted through the screws E E.

The adjustable arm L which is secured to the spherical head G comprises a tubular section having therein a longitudinal slot K, the edges of which are intumed to form longitudinal inward projecting flanges W W. By this means the arm L may be of comparatively thin, light material, which, under ordinary conditions, would not possess sufficient strength for the desired purpose; however, by the addition of the longitudinal flanges W W the arm is greatly stiffened and strengthened until it will resist the tendency to flex or bend when in use, while still being of very light weight.

In addition to rendering the arm L more stable, the flanges W W have another function, that of preventing the rotation of an extendible section M of the arm L. The section M is preferably of wood or other non-conducting material, and is adapted to telescope within the tubular portion L. The section M is provided with a longitudinal groove N with which the flanges W engage, thus preventing a revoluble movement of said section while permitting a longitudinal movement thereof.

Secured to the extremity of the extendible section M is a ferrule Q to a flat surface of which is pivoted at P, a spring clip O adapted to engage and hold an incandescent electric bulb. The pivotal connection permits the bulb to be turned radially about its pivotal connection P, which is very desirable when the lamp is used with a shade. The base of the clip O is arched or formed concave as shown in Fig. 5.

The construction is such that the spring clip is swiveled on the flat side of the ferrule, and so formed that when pressure is applied by the centrally placed pivotal retaining screw, P, the extremities of the jaws of the holder are drawn together, firmly gripping the lamp but in no wise preventing the swivel adjustment of the lamp; and when the lamp is within the jaws, the tension on the base is sufficient to retain it in its adjusted radial position.

Secured to the section M and projecting through the slot K of the arm L is an insulated hook or button J to

which the cord or wire of the lamp is attached to prevent slack in said cord adjacent to the lamp, which by becoming entangled with adjacent objects would prevent the shifting of the adjustable arm.

5 A ferrule is provided at the extremity of the arm L with which the hook or button J engages to limit the outward movement of the extendible section M. Inasmuch as the section M is of wood or other non-conducting material, the lamp will be effectually insulated
10 from the metallic parts of the support.

To hold the extendible section M in its adjusted position, a frictional engaging means is provided between the said section and the interior of the arm L. The inner end of the section M is bifurcated as at H. Interposed within the bifurcated portion is a spring I preferably flat as indicated which is secured in position by a
15 pin V passing through the section M.

The construction is such that the spring I forces the bifurcated end of the section M apart and into contact
20 with the interior of the tubular portion L, thus providing a continuous frictional engagement with the arm L, sufficient to hold the parts in the adjusted position. When in use the device is attached to the ceiling or side wall by screws extending through suitable holes XX in
25 the socket member, and in a position adjacent to the light connection U. By means of the universal joint of the arm L the light may be adjusted radially throughout a range substantially equivalent to half a sphere, the radius of which equals the length of the
30 arm.

By means of the extendible section M the light when in any radial position may be adjusted to and from the pivotal point. In order that when not in use the arm may be moved to a position substantially parallel with
35 the side wall or ceiling, a notch F is formed in the socket member A which notch is in alinement with the center of the head G and at right angles to the axis of the socket member A. When the arm L rests in the notch F the arm will extend substantially perpendicular to the axis
40 of the socket member A and for greater security may be engaged by a retaining hook S, as indicated in Fig. 2.

It will be seen that there has thus been provided a device combining an adjustable arm of light weight, possessing a maximum amount of strength and inflexibility, which may be constructed at low cost, and which
45 possess the various other features of advantage before enumerated as desirable, and which is obviously susceptible of modification in its form, proportion, detail construction and arrangement of parts without departing from the principle involved, or sacrificing any of its
50 advantages.

Having thus described my invention I claim:

1. In an adjustable lamp support, an extendible arm comprising a tubular section, having a longitudinal slot therein, inward projecting flanges adapted to strengthen
55 and stiffen said tubular section, said inward projecting flanges being formed by turning inward the edges adjacent to said slot, a second section slidably mounted in said tubular section, means for retaining said second section in its adjusted position, and means for securing a lamp
60 thereto, substantially as and for the purpose specified.

2. In an adjustable lamp support an extendible arm, comprising a tube having a longitudinal slot therein, a second section telescoping within said tube having a longitudinal groove therein, inward projecting flanges adjacent to
65 said longitudinal slot of the first section engaging the longitudinal groove of the second section, and means for securing a lamp for said arm substantially as specified.

3. In a lamp supporting device, an adjustable arm comprising a tubular section, a solid non-hollow section telescoping within said tubular section, said non-hollow section having a longitudinal slot therein, dividing and forming
70 a forked inner end of said non-hollow section, a spring located within said slot and adapted to spread said forked end of the non-hollow section, whereby said forked end will frictionally engage the interior of the tubular arm,
75 substantially as specified.

4. In a lamp supporting device, an arm, means for securing a lamp thereto, a spherical head terminating said arm, a socket member within which said spherical head extends, a bearing block of wood shaped to conform to said
80 spherical head, a plate independent of, but adjustable in its relation with said socket, a body of resilient material interposed between said plate and bearing block, adjusting screws having their heads accessible when the device is attached to the wall or ceiling, said adjusting screws extending through said socket member and engaging said
85 adjustable plate, substantially as and for the purpose specified.

5. In a lamp support, a supporting arm having a flattened bearing surface, a U-shaped spring clip having an arched base, a pivotal connection passing through said base and engaging said arm, said clip being adjustable
90 radially about its connection, said arched base being placed under tension by the engagement of said pivotal connection to cause it to engage the flat surface and retain the radial adjustment of the clip, and to further cause the jaws of the clip to draw together, substantially as and for
95 the purpose specified.

6. In an adjustable light fixture, the combination of a wood or fiber rod with grooved side to allow of the in-
100 turned lips of a slotted tube working longitudinally therein, said rod having attached to its lower end a lamp holder, and having its upper end forked to receive a flat spring, providing a slight frictional resistance sufficient to retain it in its position without other fastening when said
105 rod is extended to increase the length and range of the main tubular arm, as described and for the purpose set forth.

WILSON J. HAWKER.

Witnesses:

LILLIE HILDT,
HARRY F. NOLAN.