S. NEWMAN & H. R. BOTHWELL.

LAMP SUPPORT.

APPLICATION FILED JULY 16, 1915.

1,194,772.

Patented Aug. 15, 1919

2 SHEETS—SHEET 1.

Fig. 1.

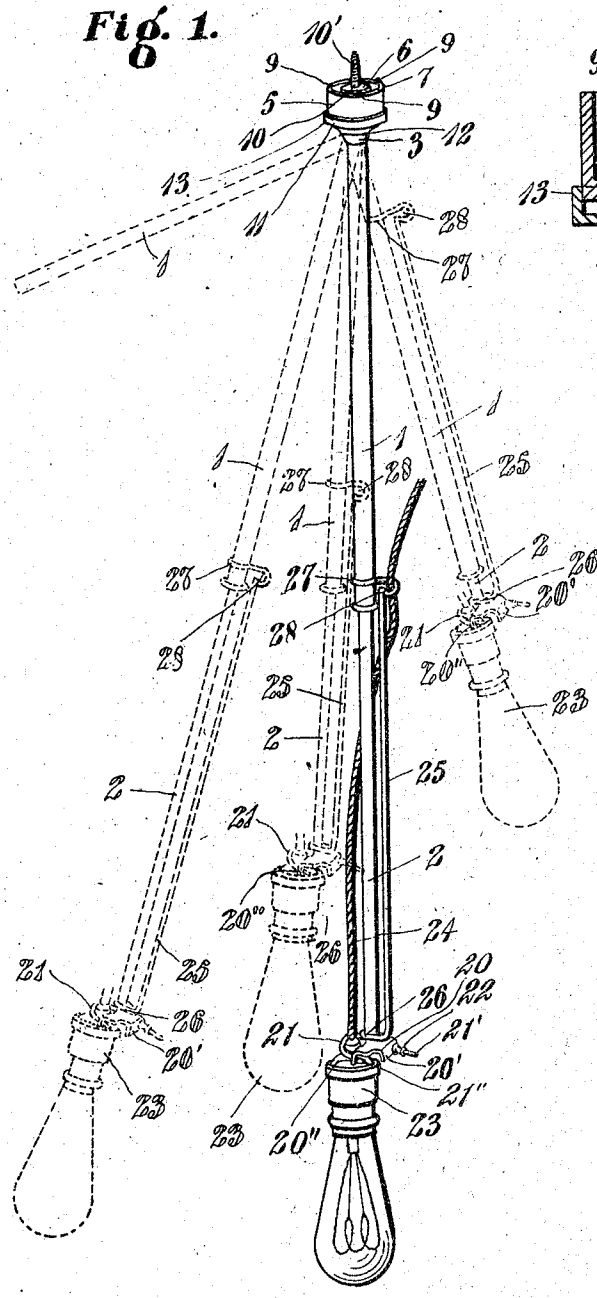
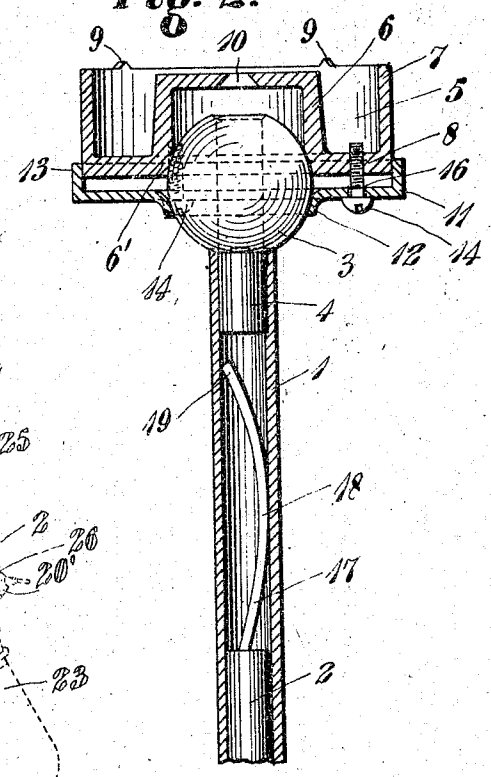


Fig. 2.



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2 SHEETS—SHEET 2.

Fig. 4.

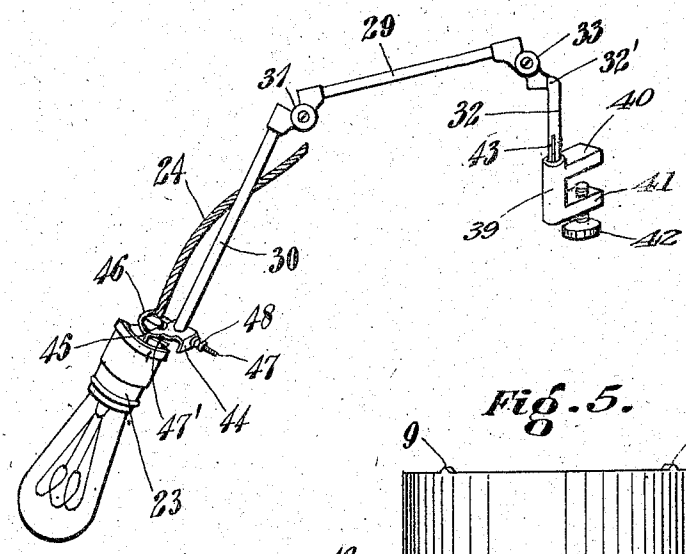


Fig. 5.

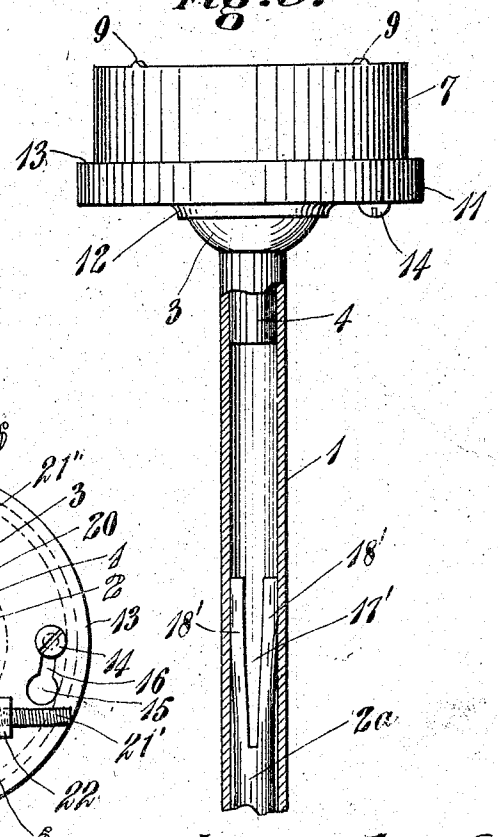
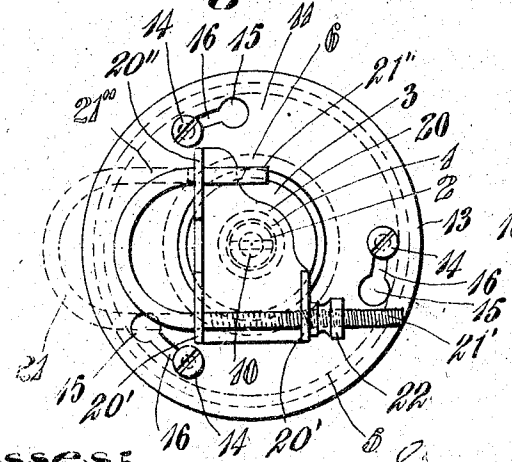


Fig. 3.



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UNITED STATES PATENT OFFICE.

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LAMP-SUPPORT.

1,194,772. Specification of Letters Patent. Patented Aug. 15, 1916.

Application filed July 16, 1915. Serial No. 40,248.

To all whom it may concern:

Be it known that we, SAMUEL NEWMAN, a citizen of the United States, and HENRY R. BOTHWELL, a subject of the King of Great Britain, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Lamp-Supports, of which the following is a specification.

Our invention relates to light supports; and its object is to more conveniently and firmly hold an incandescent electric lamp at any desired angle with and distance from a mounting.

Our invention consists in the combination of parts and in the details of construction and arrangement of parts as will herein be more fully described and claimed.

In the drawings: Figure 1 is a general perspective view of our improved lamp support; Fig. 2 is a vertical cross section of the upper part of the mounting shown in Fig. 1; Fig. 3 is a bottom plan view of the mounting shown in Fig. 1; Fig. 4 is a general perspective view of a modification of our invention; Fig. 5 is a vertical cross section corresponding to Fig. 2, but showing a modification of the frictional holding means inside the tube.

The extensible arm of the support comprises an upper tubular member 1 and a lower member 2 which need not be tubular, and which slides into the interior of the upper member 1. The upper end of the upper tubular member 1 has a spherical head 3 fixed to it by means of a shank 4 fixed in a central bore in the head 3, extending into the upper end of the member 1, and soldered or otherwise suitably fixed therein. This spherical head 3 bears upward in the mounting 5 which, as here shown, comprises an inner dome 6 and an outer shell 7, both of which are substantially circular and concentric, and these parts being joined by a bottom 8 that extends out from the lower rim of the dome 6 to the lower end of the shell 7 all around. The dome 6, around inside its lower rim has a part 6′ that conforms to the spherical head 3 and thereby forms a bearing for said head 3; while the upper end of the shell 7 is left open, and its rim preferably extends slightly above the top of the dome 6, this upper rim of the shell 7 being the means that makes contact with the ceiling or other object upon which the mounting is secured. Preferably, this upper rim of the shell 7 is provided with lugs 9 that extend up and are adapted to become indented in the material of the ceiling or other object, and through the top of the dome 6 there is an opening 10 through which a screw 10′ may be passed up into the ceiling or other object, this opening 10, as shown, being countersunk to receive an ordinary flat-head screw. Thus, a single screw through the opening 10, in conjunction with the lugs 9, will hold the mounting up on the ceiling or other object and also prevent it from turning around the screw. To hold the spherical head 3 up in its bearing in the lower rim of the dome 6, a collar 11 has a slight downwardly turned annular flange 12 that bears around on the spherical head 3, and it has a peripheral upwardly turned annular flange 13 that fits neatly around the outside of the lower end of the mounting 5. Screws 14 pass up through the collar 11 into the bottom 8 of the mounting 5 and draw the collar 11 up against the spherical head 3 with any desired degree of tightness. In order that the collar 11 may be removed from the mounting 8 and allow the spherical head 3 to be taken from its bearing without removing the screws 14, the collar 11 has its openings through which the screws 14 pass in the form of a combination of a circular hole 15 and a slot 16 communicating with and extending from one side of the hole circumferentially around the collar for a short distance, all of these slots 16 extending from the respective holes 15 in the same direction around the collar. The holes 15 are large enough to allow the heads of the screws 14 to pass through them, but the slots 16 are only about wide enough to allow the passage of the shanks of the screws into these slots. Thus, the collar 11 may be brought up onto the mounting 5 by bringing its holes 15 over the heads of the screws 14 and then rotating the collar 11 until the slots 16 receive the screws. In some instances, it may be necessary to loosen the screws 14 slightly in order to remove and replace the collar, but at the same time it will not be necessary to remove the screws entirely from the mounting 5. This makes the assemblage and disassemblage of the support convenient for storage, transportation and subsequent installation. Thus constructed, the spherical head 3 will have its

bearing in the mounting 5 upon the spherically conforming part at the lower end of the inverted cup 6 and upon the downwardly turned flange 12 of the collar 11. With the support of considerable length, as is necessary where it is to be used upon high ceilings or mounted on other high objects and the lamp is to be extended down to a convenient distance, it is necessary for the ball-and-socket joint formed by means of the spherical head 3 in the mounting 5 to afford considerable resistance, so that the support cannot be too easily moved out of its adjusted position under the long leverage afforded from the lamp up to the mounting. We provide for this by causing the contact of the spherically conforming part 6' and the flange 12 to bear against the spherical head close to and at opposite sides of a great circle thereof, so that the angle of entrance of the spherical head into its bearing either upwardly or downwardly is very low. Thus the head will be very tightly wedged in its bearings in the spherically conforming part 6' and the flange 12 when the collar 11 is drawn upward by the screws 14.

Preferably, no positive clamping means is provided for the lower member or rod 2 in the upper tubular member 1, but these parts are held together frictionally so that the lower member may be very conveniently slid up or down in the upper member. As here shown this frictional holding means consists of a resilient wire 17 fixed in the upper end of the rod 2 and curved out of alinement with the rod 26 and tube 1 far enough to cause it to bear with its middle part 18 and its free end 19 against substantially opposite sides of the interior of the tube 1 with considerable force, and thereby afford the friction required to hold the rod 2 stationary in the tube 1 at any position to which the rod 2 is slid in said tube 1.

The foot 20 comprises a piece of sheet metal with two alined lugs 20' turned down from it at one side, and one lug 20'' turned down from it at the other side of its junction with the lower member 2. A U-shaped member 21 has a long leg 21' and a short leg 21''. The long leg 21' is threaded and extends through and is guided and supported by the alined lugs 20' and has a thumb nut 22 screwed onto it where it projects back through the lugs 20'. The short leg 21'' extends through and is guided and supported by the other lug 20'' at the other side. This foot is adapted to admit the neck of the lamp 23 and the cord 24 by bringing the U-shaped member 21 far enough forward to allow the end of its short leg 21'' to escape from the lug 20'', as indicated by the dotted lines in Fig. 3. When this is done the U-shaped member may be swung around to admit the cord 24, and then the neck of the lamp may be brought up, and when the U-shaped member is drawn back by the nut 22 it will clamp the neck tightly between it and the forward one of the lugs 20' and the lug 20'', as shown in Fig. 1. This foot has the advantage of being adjustable to necks of different sizes on different lamp sockets.

To support the cord 24 in upright position for a considerable distance up from the lamp, a cord holder 25 is formed of a wire or rod, preferably somewhat thinner than the rod 2, having a lower eye 26 extending at right angles from its lower end and embracing the rod 2 and having an upper eye 27 embracing the upper member or tube 1. This upper eye 27 lies at right angles to the main part of the cord support 25, but joining it to this main part is an open loop 28 formed by the wire or rod. This loop 28 permits the lamp cord 24 to be slid into it; and when the rod 2 is adjusted up and down in the tube 1, the upper eye 27 of the cord support 25 will slide up and down on the tube, the lower eye 26 bearing down against the foot 20. Thus, whatever upward and downward adjustment of the lamp, the cord will always be held up by the loop 28 of the cord holder 25 amply far to be out of the way of the user of the lamp.

In the modification shown in Fig. 4, the upper and lower members 29 and 30 have a laterally disposed hinged joint 31; and a pin 32 has a lateral projection 32' that has a similar hinged joint 33 with the upper member 29. These hinged joints are made tight to afford ample friction between their parts to hold them at any adjustment. The pin 32 is adapted to fit into a socket 39, with upper and lower lugs 40 and 41 and a set screw 42 passing up through the lower lug 41. Thus the socket may be clamped to a table, desk or the like. Preferably, the pin 32 has a slot 43 cut in it from its lower end for a considerable distance upward, so that the lower part of the pin 32 is divided into two parts which spring outward from each other somewhat, and when the pin is inserted into the socket these parts bind against opposite sides of the interior of a socket in a manner similar to the binding of the resilient wire 17 in Fig. 2. Here, however, the friction thus afforded is to resist turning of the pin around in the socket rather than sliding of one part longitudinally of the other, as in the example of Fig. 2. The above arrangement is shown applied to the latter purpose in Fig. 5, in which the lower member 2^a is provided with a slot 17' in its upper end so that it has two parts 18' that spread apart and bear with their upper end parts against the inner walls of the tubular upper member 1.

Having fullly described our invention,

what we claim as new and desire to secure by Letters Patent is:

1. In a lamp support, in combination with a supporting member, lamp holding means on said supporting member comprising a foot with two alined downwardly turned lugs at one side and one downwardly turned lug at its other side, a U-shaped member with a long leg extended through and guided and supported by the alined lugs, and with a short leg extending through and guided and supported by the other lug at the other side, and means to draw the long leg through said lugs and draw the short leg into said lug or to permit said U-shaped member to be withdrawn far enough to allow the end of its short leg to escape from said lug, said U-shaped member being adapted to receive a part of a lamp inserted endwise, and the escape of said short leg from said lug allowing the passage of a lamp cord attached to the lamp while the part of the lamp is thus inserted, and said U-shaped member, as its legs are drawn through said lugs, being adjustable to parts of lamps of different sizes.

2. In a lamp support, an upper tubular member, a lower elongated member sliding into said upper tubular member, a mounting for said members connected to said upper member, and a foot fixed to said lower member near its lower end, means to hold said lamp to said foot, a cord-holder comprising an elongated main part and laterally extending eyes near the upper and lower ends of said main part, said eyes loosely embracing said upper member and said lower member, respectively, and said lower eye bearing down against said foot and said upper eye sliding up and down on said upper member, and an open loop formed in said cord-holder near its upper end to receive the lamp cord and hold it up away from the lamp when held in said foot.

3. In a lamp support, a member to hold a lamp, and a mounting for said member comprising a dome, a collar, and means to draw the collar toward the dome, and a substantially spherical head on said member held in said dome by said collar, an outer shell supporting said dome, and means extending from the bottom of said shell over to said dome and integrally joining the shell and dome the upper end of said shell being open, and engaging means on the upper end of said shell to project into the material of a supporting object, said dome having an opening in its top through which fastening means may be inserted into the material of said supporting object to draw said dome and said shell up toward the supporting object and insert said engaging means into the material of the supporting object, whereby the mounting is held toward the supporting object and prevented from turning thereon.

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