C. W. MORNINGSTAR.

DROP LIGHT SUPPORT.

APPLICATION FILED APR. 9, 1912.

1,047,433. Patented Dec. 17, 1912.

2 SHEETS—SHEET 1.

FIG. 1.

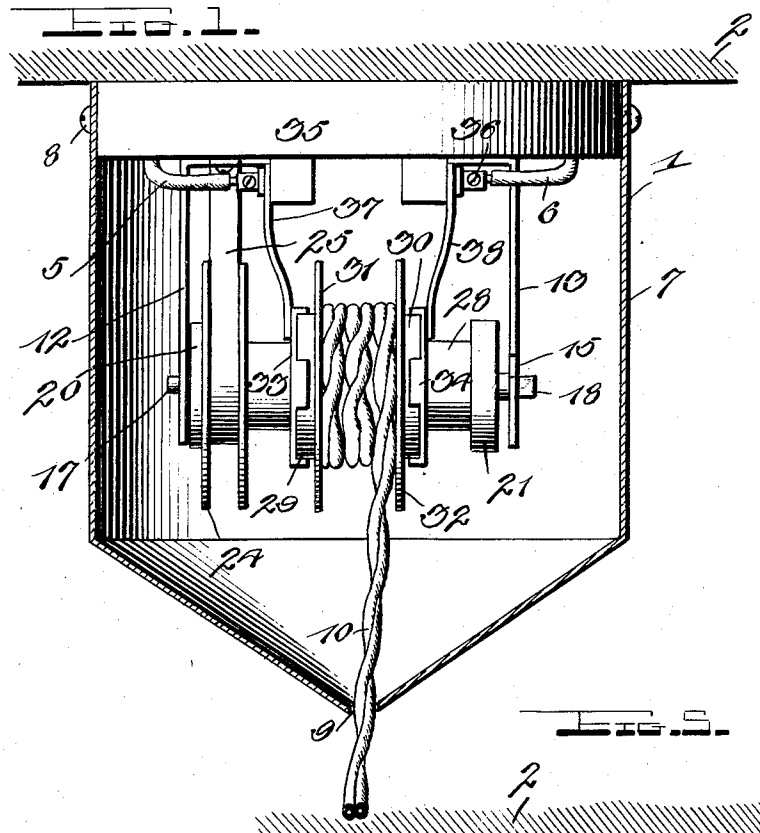


FIG. 5.

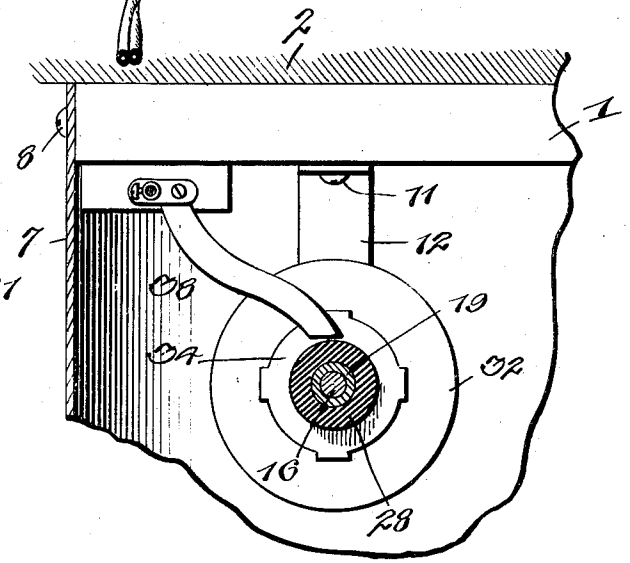
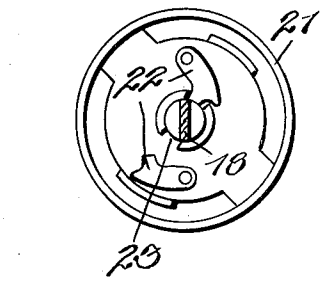


FIG. 4.



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2 SHEETS—SHEET 2.

FIG. 2.

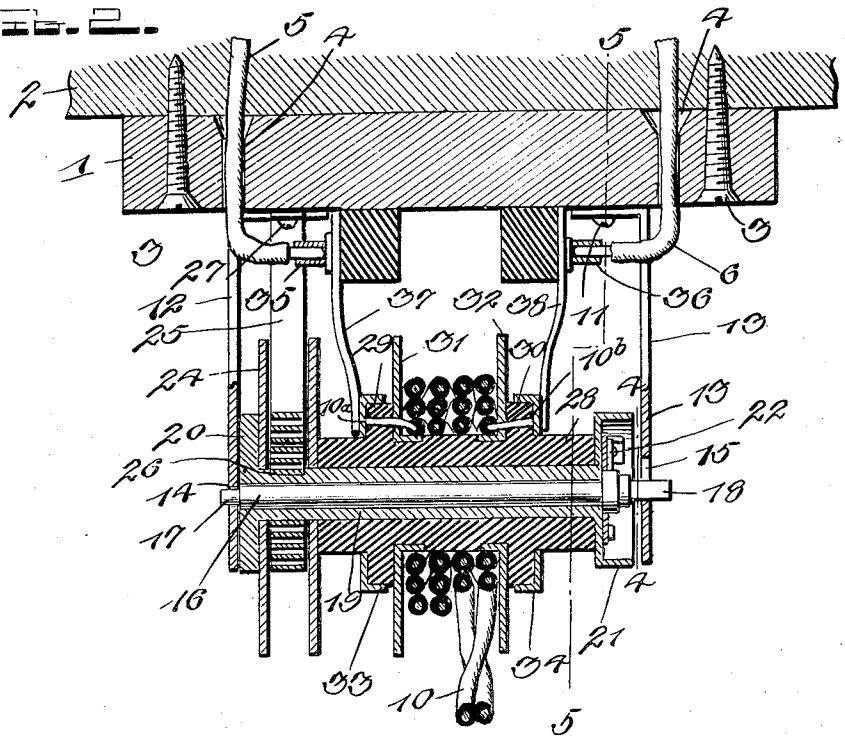


FIG. 3.

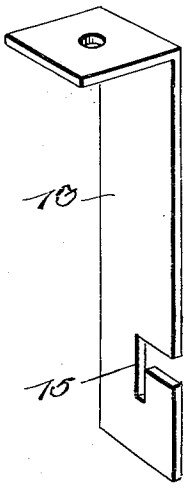
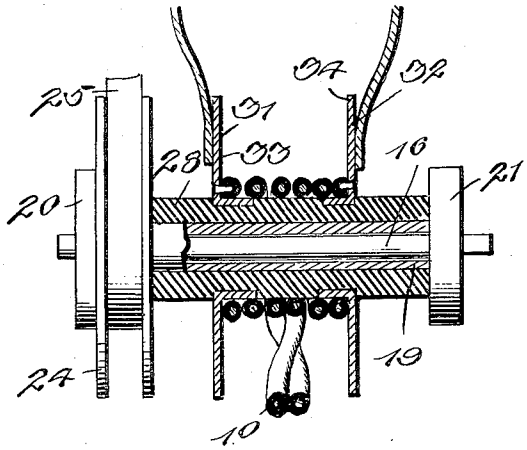


FIG. 6.



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UNITED STATES PATENT OFFICE.

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DROP-LIGHT SUPPORT.

1,047,433. Specification of Letters Patent. Patented Dec. 17, 1912.

Application filed April 9, 1912. Serial No. 689,533.

To all whom it may concern:

Be it known that I, CHAUNCIE W. MORNINGSTAR, a citizen of the United States, residing at Marion, in the county of Osceola and State of Michigan, have invented certain new and useful Improvements in Drop-Light Supports, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to adjustable supports for electric drop lights and has for its object the provision of a device by means of which the flexible conducting cord or wire leading from the line terminals to the lamp may be lengthened or shortened at will in order to adjust the vertical position of the lamp to suit the convenience of the user.

Having this object in view I provide at a suitable point on the ceiling or wall above the lamp a base plate containing fixed terminals for the line wires and adjacent thereto a suitably supported spring controlled reel upon which the lamp cords are wound by the action of the spring and unwound by a pulling upon the cords, the lamp being held in adjusted position by means of the dogs borne by the reel and its shaft.

The invention as thus outlined and as hereinafter particularly claimed will now be described in detail in connection with the accompanying drawings, wherein—

Figure 1 is a section through the casing showing the operating mechanism in elevation; Fig. 2 is a vertical longitudinal section through the reel mechanism; Fig. 3 is a fragmentary detail of one of the brackets; Fig. 4 is a section on the line 4—4 of Fig. 2; Fig. 5 is a fragmentary view in section of a modification and, Fig. 6 is a fragmentary side elevation of the modification and illustrating a portion thereof in section.

Corresponding and like parts are referred to in the following description and designated in the accompanying drawings by like reference characters.

In the drawings the reference numeral 1 designates a base plate adapted to be secured to the ceiling 2 by the screws 3 and provided with openings 4 enlarged to the rear and affording a through-way for the line conductors 5 and 6. This base plate is preferably circular and adapted to be inclosed by a conical or dome-shaped casing 7 secured to the base plate by screws 8, the casing being provided at its apex with an opening 9 for the passage of the double lamp cord 10. Upon the base plate is suitably secured by the screws 11 a pair of bracket members 12 and 13 the member 12 having a bearing aperture 14 and the member 13 having a bayonet slot 15 within which are journaled the two ends of the arbor 16, the end 17 of which is cylindrical while the end 18 is flattened to engage in the slot 15 whereby rotation is prevented.

Rotatably mounted upon the arbor 16 is a tubular shaft 19 having at one end a flange 20 and at the opposite end a cup-shaped flange 21 within the over-hanging walls of which is pivotally mounted one or more dogs 22 adapted to engage within a recess 23 formed in the arbor 16.

A spring barrel 24 is mounted upon the shaft 19 and within this barrel is disposed a spiral spring 25 one end of which is rigidly affixed to the shaft at 26 and the other end secured to the base by a screw 27 or in other suitable manner.

About the shaft 19 between the spring barrel and the cup flange is affixed a sleeve 28 of insulating material which sleeve is preferably provided with two annular shoulders 29 and 30. Between these shoulders are mounted the side members 31 and 32 of the cord reel upon which is wound the upper extremity of the lamp cord 10. Upon the outer side of and overhanging the shoulders are mounted the cup-shaped disks 33 and 34 of conducting material, preferably copper. To the disk 33 is secured, in electrical contact, the terminal portion of one of the lamp cord members 10^a and to the disk 34 is similarly secured the other lamp cord member 10^b, said cord members passing through the side plates of the reel and the insulator shoulder to said disks, where they are secured by soldering or in other suitable manner.

Upon the base plate 1 are arranged binding posts 35 and 36 which serve as line terminals and also as a securing means for brushes 37 and 38 which bear against the outer faces of the disks 33 and 34.

From the above it will be readily understood that by pulling downward upon the cord 10 the same is unwound from the reel against the tension of the spring 25 the dogs 22 permitting this uninterrupted rotation of the shaft relative to the arbor, while the dogs serve to engage the arbor and retain the members in adjusted position if the cord 10 is relaxed slightly, whereas if the cord

is permitted to rapidly ascend the dogs ride over the recesses and allow the spring to rewind the cord upon the reel. The construction and operation of the shaft and arbor connection is substantially the same as that employed in connection with shade rollers and which is generally familiar to the public. Whether in a state of rest or winding or unwinding, electrical communication is maintained between the line wires 5 and 6 and the members 10^a and 10^b of the lamp cord 10 by means of the brushes 37 and 38 which bear upon the outer faces of the disks 33 and 34, whereby the electric circuit is maintained uninterrupted.

In Fig. 5 I have shown a slight modification wherein the shoulders 29 and 30 are omitted and the disks 33 and 34 are consolidated with the reel plates 31 and 32, the terminals of the lamp cord being electrically connected to said side plates of the reel and the brushes bearing directly upon said side plates which take the place of the contact disks 33 and 34, the operation being the same.

Having thus described my invention, I claim:

In a drop light support, the combination with a base, of a pair of spaced brackets depending therefrom, an arbor detachably mounted within the lower ends of said brackets, a tubular shaft rotatably mounted upon said arbor, an annular flange formed integral with one extremity of said shaft, a cup-shaped flange formed integral with the opposite extremity of said shaft, pawls pivotally mounted within said cup-shaped flange and adapted to engage said arbor, a spring drum carried by the arbor adjacent said annular flange, a coil spring mounted within said drum having one end thereof connected to said shaft and its opposite end connected to the said base, an insulated sleeve mounted upon said shaft intermediate of said cup-shaped flange and said drum, a pair of spaced annular shoulders formed upon the periphery of said insulated sleeve, L-shaped flanges secured upon said sleeve adjacent the inner faces of said shoulders, annular plates carried by the outer faces of said shoulders, a pair of spaced insulated blocks depending from the base, a pair of depending brushes carried by said blocks and adapted to bear against the outer face of said plates, line terminals connected to said brushes adjacent the upper ends thereof, electric lamp cords wound upon the sleeve between the said L-shaped flanges and means for operatively connecting the lamp cords with said plates substantially as and for the purpose specified.

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

CHAUNCIE W. MORNINGSTAR.

Witnesses:
FRANK E. PEEL,
FRED O'DONNELL.