No. 875,280. PATENTED DEC. 31, 1907.

J. McGAVIN.

ADJUSTABLE HANGER FOR ELECTRIC LIGHTS.

APPLICATION FILED MAR. 2, 1906.

Fig. 1

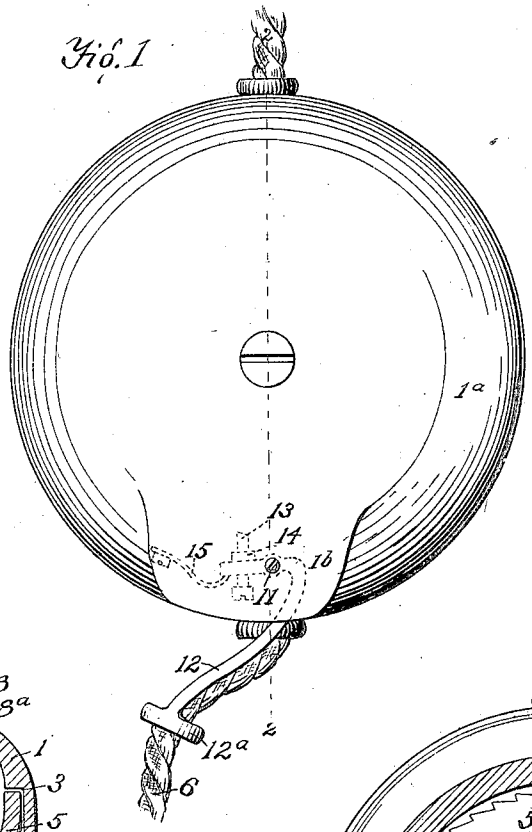


Fig. 2

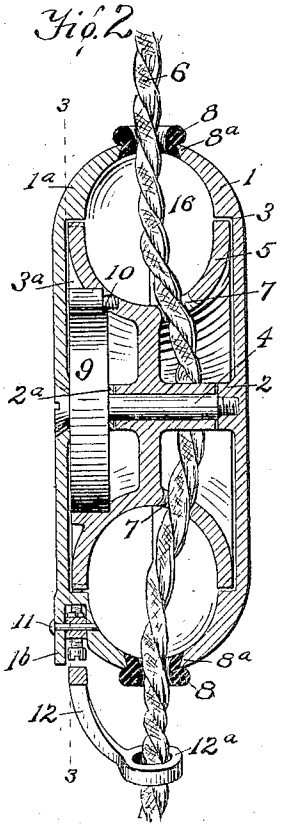
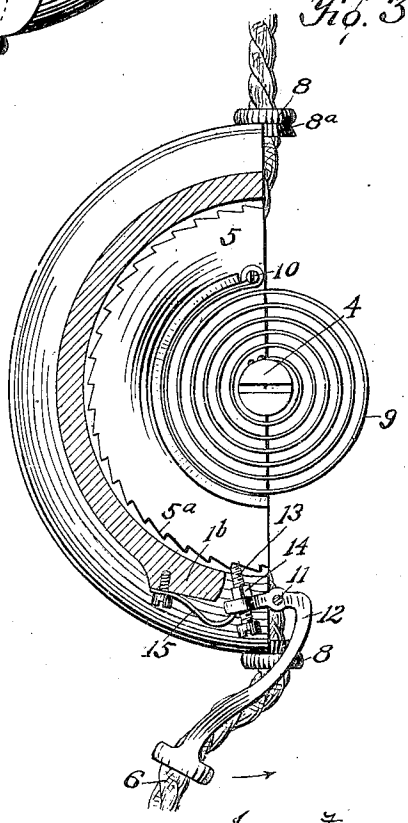


Fig. 3



Witnesses
E. N. Lichtenberg
Clara McKee.

Inventor
James McGavin
by N. DuBois,
Atty.

THE NORRIS PETERS CO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

JAMES McGAVIN, OF SPRINGFIELD, ILLINOIS.

ADJUSTABLE HANGER FOR ELECTRIC LIGHTS.

No. 875,280. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed March 2, 1906. Serial No. 303,898.

To all whom it may concern:

Be it known that I, JAMES McGAVIN, a citizen of the United States, residing at Springfield, in the county of Sangamon and State of Illinois, have invented a certain new and useful Adjustable Hanger for Electric Lights, of which the following is such a full, clear, and exact description as will enable others skilled in the art to which it appertains to make and use my said invention.

My invention relates to adjustable means for supporting electric lights.

The purposes of my invention are to provide a hanger adapted to support an electric light at any desired height within predetermined limits, depending upon the size of the hanger; to provide a shell housing the operating parts and so constructed and arranged that a single screw will serve to connect together the shell-members and will also serve as a journal on which the sheave turns; to provide a sheave of improved construction; to provide means to stop the sheave at any stage of its revolution; to provide means for accurate adjustment of the sheave-stop and to provide simple and effective means for connecting insulators with the shell.

With these ends in view my invention consists in the novel features of construction and combinations of parts shown in the annexed drawings to which reference is hereby made, and hereinafter particularly described and finally recited in the claims.

Figure 1 is a side elevation of the complete device; Fig. 2 is a vertical axial section through the shell, the insulators and the sheave and shows in elevation the spring and the bolt connecting the shell-members, and Fig. 3 is a vertical section on the line 3. 3. of Fig. 2.

Similar reference numerals designate like parts in the several views of the drawings.

The shell and the sheave may be of any suitable material, aluminium castings being the most desirable.

The shell consists of two substantially similar disk-shaped members 1 and 1^a. The adjacent parts of the members 1 and 1^a are curved so that when the members are united the curved parts of the members in conjunction with the circumferential groove of the sheave form an internal circular circumferential chamber 16 adapted to accommodate the cable wound upon the sheave and the wall of the chamber prevents the cable from winding upon the edges of the sheave.

The member 1 has an internal hub 2 and a circular recess 3. The member 1^a has a similar hub 2^a and a similar recess 3^a. A stud screw 4 passes through the hub 2^a and screws into the hub 2. A grooved sheave 5 turns on the screw 4 and the flanges of the sheave fit in the recesses 3 and 3^a. The cable 6 containing the conducting wires passes through holes 7 in the sheave. When the sheave is turned in one direction the parts of the cable above and below the sheave wind onto the sheave and when it is turned in the opposite direction they both unwind from the sheave.

Insulators 8 of hard rubber or other suitable material, have circumferential channels 8^a, and the upper parts of the shell members 1 and 1^a are formed to fit in and around the channels 8^a and hold the insulators in place on the sheave.

A helical spring 9 has its inner ends secured to the hub 2^a, and its outer end is secured to the sheave 5 by a screw 10 or equivalent securing device. The member 1^a has an integral extension 1^b. A screw 11 passes through the extension 1^b and screws into the body of the member 1^a. A curved lever 12 turns on the screw 11 and has at its lower end an eye 12^a through which the cable passes. Inclined teeth 5^a extend around the perimeter of one flange of the sheave 5. A screw 13 passes through one member of the lever 12 and is adapted to engage in the teeth 5^a. The jam nut 14 secures the screw 13 after it has been set in proper position to act on the teeth 5^a. A spring 15 has one member secured on the extension 1^b and the free end of the spring acts on one member of the lever 12 to press upward the member on which the screw 13 is mounted.

Pulling downward on the chord 6 moves the lever 12 so as to withdraw the screw 13 from the teeth 5^a, and the spring being under tension acts to turn the sheave to wind the cable on the sheave, or if the downward pull on the cable is sufficient to overcome the action of the spring the sheave turns in the opposite direction to unwind the cable from the sheave.

The insulators 8 serve to prevent short-circuiting of current from the cable to the shell.

Having fully described my invention what I claim as new and desire to secure by Letters Patent is:

1. In an electric light hanger equipped with a revoluble sheave provided with cir-

cumferential teeth, and a cable connected to wind on the sheave; the means for accurately controlling the turning of the sheave, consisting of an oscillative curved lever, one member of which has an eye accommodating the said cable, a screw extending through the other member of the lever and adapted to engage the circumferential teeth of the sheave and adjustable toward or away from said teeth, a jam nut adapted to secure said screw and a spring acting to hold the point of the screw in engagement with the teeth of the sheave.

2. In a hanger for electric lights, disk-shaped shell-members having notches adapted to accommodate insulators, recesses adapted to accommodate the flanges of a sheave, internal concavities matching each other and the groove of the sheave to form a circular chamber adapted to accommodate a cable wound upon the sheave, and internal hubs adapted to accommodate a stud-bolt; in combination with insulators fitting in the notches of said shell-members, a stud-bolt connecting said shell-members and adapted to serve as a spindle for a sheave, and a sheave revoluble on said bolt between the hubs of said shell-members and having flanges fitting in the recesses of said shell-members and a circumferential groove matching the concavities of the shell-members.

In witness whereof I have hereunto subscribed my name at Springfield Illinois this 29th day of January 1906.

JAMES McGAVIN.

Witnesses:
E. H. LICHTENBERG,
MARGARET McDONALD.