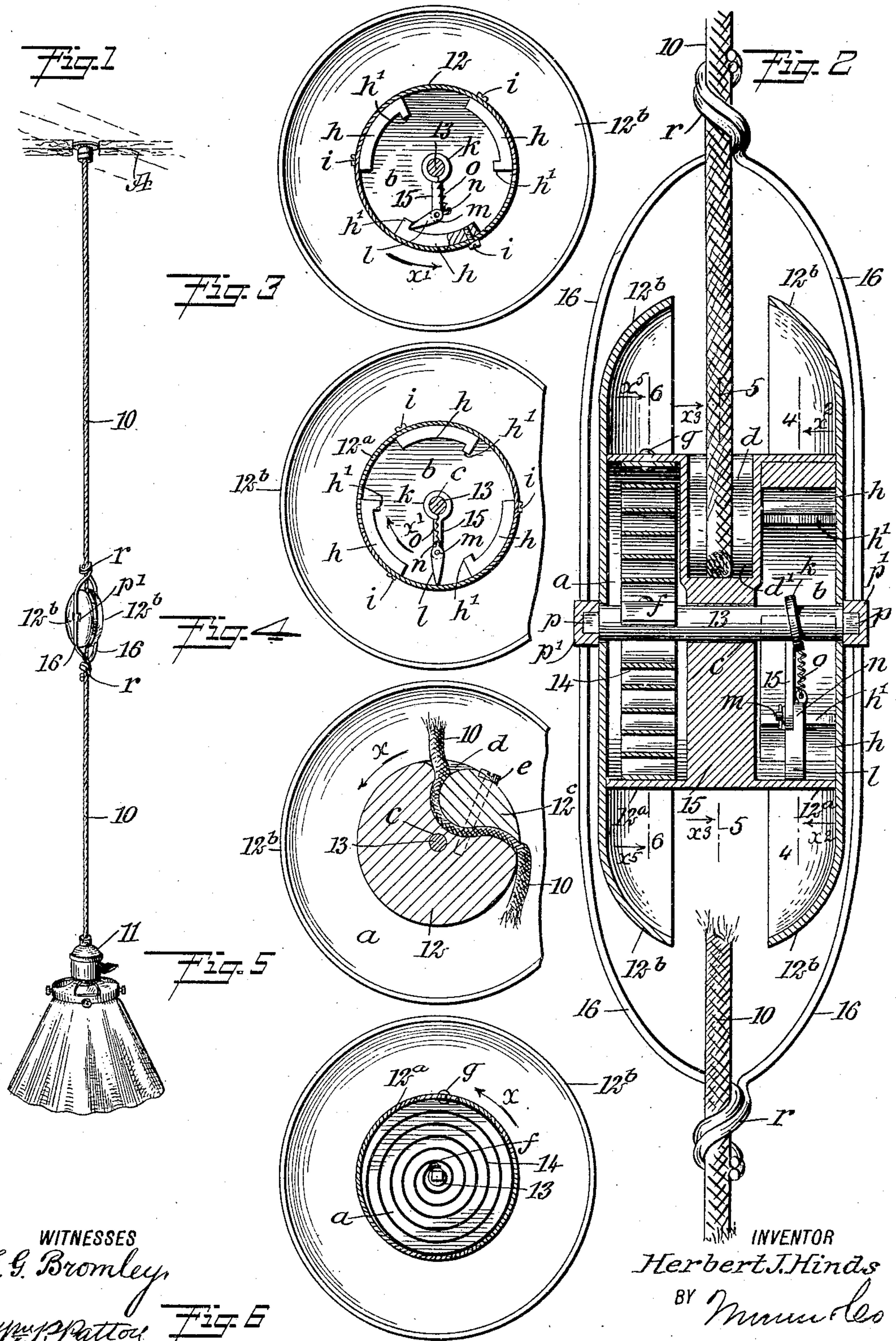


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ADJUSTABLE HANGER FOR LIGHTS.  
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## ADJUSTABLE HANGER FOR LIGHTS.

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Specification of Letters Patent.

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*To all whom it may concern:*

Be it known that I, HERBERT J. HINDS, a citizen of the United States, and a resident of Hillyard, in the county of Spokane and State of Washington, have invented a new and Improved Adjustable Hanger for Lights, of which the following is a full, clear, and exact description.

The purpose of this invention is to provide novel details of construction for an adjustable hanger, that is particularly well adapted for the suspension of a lamp or the like from an overhead support, and enable the vertical adjustment of the light at a desired height.

The invention consists in the novel construction and combination of parts, as is hereinafter described and defined in the appended claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the improvement applied to the adjustable suspension of a lamp from the ceiling of a room; Fig. 2 is an enlarged longitudinal sectional view of the improved lamp hanger, taken through the center thereof; Fig. 3 is a transverse sectional view of the hanger reel, taken substantially on the line 4—4 in Fig. 2, parts being shown somewhat changed in adjustment from that shown in said figure; Fig. 4 is a transverse sectional view of novel details, substantially on the line 4—4 in Fig. 2, seen in the direction of the arrows  $w^2$ ,  $w^2$  in said view; Fig. 5 is a transverse sectional view of details, taken substantially on the line 5—5 in Fig. 2, seen in the direction of the arrows  $w^3$ ,  $w^3$  in said view; and Fig. 6 is a transverse sectional view, substantially on the line 6—6 in Fig. 2, seen in the direction of the arrows  $w^5$ ,  $w^5$  in said figure.

The improvement is well adapted for the suspension and vertical adjustment of a pendent electric lamp, wherein a flexible connection is employed that is an insulated electrical conductor, which is the preferred service for the improved hanger device.

In the drawings that represent one example of my invention, 10 indicates a suitable flexible connection that is pendent from an overhead support such as a ceiling A, a lamp

11 of any preferred construction hanging from the lower end of said flexible connection or cord 10.

The improved hanger device embodies a cylindrical reel 12, whereon the cord 10 is secured intermediately of its ends, and it will be seen that a rotary movement of the reel will wrap the connection 10 upon said reel and shorten it, thereby elevating the lamp 11, a downward pull on the cord 10 serving to lower the lamp, as is more fully explained in the following specific description.

The body of the reel 12 consists of a cylindrical block of a suitable diameter and length, having at each end a cylindrical wall  $12^a$  formed or secured thereon, which walls provide lateral extensions of the peripheral surface of the reel, and affords two chambers  $a$ ,  $b$ , one at each side of the body 12. Centrally in the reel body 12, a longitudinal perforation  $c$  is formed, wherein a shaft 13 is loosely inserted and projects through the lateral chambers  $a$ ,  $b$ .

On the ends of the cylindrical extensions  $12^a$ , two similar flanges  $12^b$  are concentrically secured, said circularly-edged flanges being dished on their inner sides, thus disposing their edges parallel and near to each other, as is shown in Fig. 2. A recess  $d$  is formed in the body 12 of the reel, said recess having parallel side walls and a proper depth, the bottom wall  $d'$  thereof having an undulating form, as is clearly shown in Fig. 5. In the recess  $d$ , a clamping block  $12^c$  is loosely fitted, the peripheral surface of which is curved, having the same radius as that of the main peripheral surface of the body 12, said clamping block being removably secured in the recess  $d$  by a clamping bolt  $e$ .

In the chamber  $a$ , shown at the left in Fig. 2, and also appearing in Fig. 6, a helical plate spring 14 is introduced and secured at one end  $f$  upon the shaft 13, the outer end of said coiled spring being attached upon the inner surface of the defining wall  $12^a$  of said chamber  $a$ , as shown at  $g$  in Figs. 2 and 6. In the opposite chamber  $b$ , a plurality of preferably equally-spaced segmental abutment blocks  $h$  are secured or formed, these blocks projecting from the inner surface of the circular defining wall  $12^a$  of the chamber  $b$ , and upon each block  $h$ , an inwardly-projecting lug  $h'$  is formed or secured, as shown in Figs. 2, 3, and 4 of the drawings. If the



abutment blocks *h* are separate formations, each may be secured upon the peripheral wall of the chamber *b* by a screw *i*, as shown clearly in Fig. 3.

5 In the chamber *b*, upon the central shaft 13, one end of an arm 15 is secured as shown at *k* in Figs. 2, 3, 4, said arm at its remaining end being pivoted upon one end of a pawl *l*, as shown at *m*. The length of the  
10 pawl *l* is so proportioned, that its free end will be disposed near to the inner surface of the peripheral wall of the chamber *b* when the arm 15 and pawl *l* thereon are disposed between the adjacent ends of two of the  
15 abutment blocks *h*, as is shown in Fig. 4. There is a short stud *n* projected laterally from the pawl *l* where it is hinged upon the arm 15, and between said stud and the point of attachment of the arm on the shaft 13, a  
20 spring *o* is extended, and has its ends respectively attached thereto.

It will be noted that the pull of the spring will hold the arm and pawl in alinement when relatively positioned as shown in Fig.  
25 4, but if the reel block is turned in the direction of the arrow *x'* in Fig. 4, the pawl will be impinged upon the end of the abutment block *h* at the right side thereof, and be rocked from the depending position shown  
30 in said view into the inclined adjustment indicated in Fig. 3.

In connecting the cord 10 with the reel block 12, the clamping block 12<sup>c</sup> is removed and the cord is embedded in the recess *d*;  
35 the block 12<sup>c</sup> is now seated on the portion of the cord that occupies the recess and is thereon clamped by replacement of the screw bolt *e*. Preferably the cord is engaged with the reel body near the center of length of said  
40 cord, so that one portion thereof extends downward and the other portion upward therefrom. The ends of the shaft 13, which project beyond the flanges 12<sup>b</sup>, are squared as at *p* for engagement with socket forma-  
45 tions *p'* on a guard frame 16. The guard frame in the present construction thereof, is formed of two heavy wire members that at their centers have the socket boxes *p'* secured thereon and are thence extended oppo-  
50 sitely, the end portions thereof being bent toward the cord 10 and coiled loosely around said cord, as is indicated at *r* in Fig. 2. It will be seen that the cord 10, when pendent from an overhead support, will be guided  
55 toward the reel body by the end portions *r* of the frame 16, so that the upper and lower portions of the flexible connection will be adapted to wrap evenly upon the reel body 12 first and then upon the lateral extensions  
60 12<sup>a</sup> thereof.

In the present construction of the device, the reel body 12 and lateral extensions 12<sup>a</sup> thereof, must be rotated in the direction of the arrow *x* in Fig. 6 to coil the spring 14  
65 closely upon the center shaft 13, which will

turn the body 12 so as to throw the pawl *l* into the inclined position shown in Fig. 3. The free end of the pawl *l* is caused by the tension of the spring 14, to engage with a  
lug *h'* on the abutment block *h*, over which  
70 the toe of the pawl has slid, which engagement will hold the spring from uncoiling and the lamp 11 suspended from the ceiling in lowered condition. To release the cord, a  
75 slight pull thereon will correspondingly further wind the spring so as to dispose the pawl *l* first in the position indicated in Fig. 4, releasing the spring so that it will uncoil somewhat and wrap the cord upon the reel  
80 body. Upon checking the wrapping of the cord by grasping it tightly after it has been shortened a desired degree, the pawl *l* will again interlock with the lug *h'* on the abut-  
85 ment block the pawl has been engaged with, or either of the other lugs it may be nearest to, and thus the lamp will be held stationary at a desired height.

While the preferred use for the improved hanger is the controlled suspension of an electric lamp, it is obvious that it may also  
90 be employed for hanging another type of lamp, and be equally as serviceable.

Slight changes may be made in the constructive details of the improvement within the scope of the invention; as for example,  
95 sheet metal may be substituted in the construction of the guard frame 16, which may partly or entirely inclose the hanger mechanism; further, the lugs *h'* may be placed on  
100 the opposite end of the abutment blocks *h* and the spring reversed in position, which will adapt the device to wrap the two portions of the cord oppositely on the reel block.

Having thus described my invention, I claim as new and desire to secure by Letters  
105 Patent:

1. A light hanger, embodying a reel having an internal projection, a supported shaft whereon said reel is loosely mounted, a helical spring attached at its ends on the shaft  
110 and reel, and a pivoted pawl pendent from the shaft within the reel and adapted for interlocked engagement with the projection on the reel.

2. A light hanger, embodying a reel recessed in its ends, a supported shaft whereon  
115 said reel is loosely mounted, a helical spring in one recess attached at its ends respectively upon the reel and the shaft, an arm radially extended from the shaft in the opposite  
120 chamber in the reel, an abutment in said recess, and a pawl pivoted on the free end of the arm and adapted to rock toward or from the abutment.

3. A light hanger, embodying a cylindrical reel body, cylindrical walls extended from opposite ends of the body, affording recesses, a helical spring in one recess adapted for rotating the reel body, and an abutment  
125 and a double-acting pawl in the other recess,  
130



said pawl being adapted to engage the abutment for releasably holding the spring against uncoiling.

4. A light hanger, embodying a reel having a cylindrical body, having a recess therein that intersects the periphery of said body, said recess having an undulating bottom wall, a clamping block fitted in said recess, and having a curved peripheral surface and means for detachably securing the block in said recess.

5. A light hanger, embodying a reel having a cylindrical body, said body having a recess therein intersecting its periphery, the recess having an undulating bottom wall, a clamping block fitted into the recess and having a convex outer surface, and a screw bolt adapted for securing the clamping block in the recess.

6. A light hanger, embodying a reel having a cylindrical body, said body having a recess, the ends of which intersect the peripheral surface of the body, a clamping block loosely fitted in the recess and having a convex outer surface, a cord extending through the recess, and means for forcibly clamping said block in the recess and upon the cord.

7. A light hanger, embodying a cylindrical reel body recessed in its peripheral wall, a cord embedded in the recess, a clamping block seated on the cord, means for clamping the block upon the cord, cylindrical walls extended at opposite ends of the reel body and whereon the cord may be wrapped, and radial flanges on the ends of

said walls, said flanges having concave inner surfaces.

8. In a light hanger of the character described, the rotatably-supported cylindrical reel body, having a recess in each end thereof, a helical spring in one recess that is adapted to turn the reel body on its support, the arm rigidly secured on said support, abutments secured in the opposite recess, a pawl pivoted on the free end of the arm, a stud on the pawl at the pivot, and the spring connecting the stud with the support from which the arm extends, said pawl being adapted for engaging one of the abutments when drawn laterally by the spring.

9. A hanger of the character described, comprising a frame having guide rings at its ends, a shaft carried by the frame, a reel mounted to turn on the shaft and having dished flanges at its ends, said reel being provided with a chamber at each side of its center and intermediate of the chambers with means for securing a cord thereto, a spring in one chamber and secured to the reel and shaft, and an abutment and pawl in the other chamber, the abutment being on the reel and the pawl carried by the shaft.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HERBERT J. HINDS.

Witnesses:

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