No. 729,093. PATENTED MAY 26, 1903.

C. M. PITEL.

HANGING LAMP.

APPLICATION FILED NOV. 4, 1902.

NO MODEL.

Fig. 1.

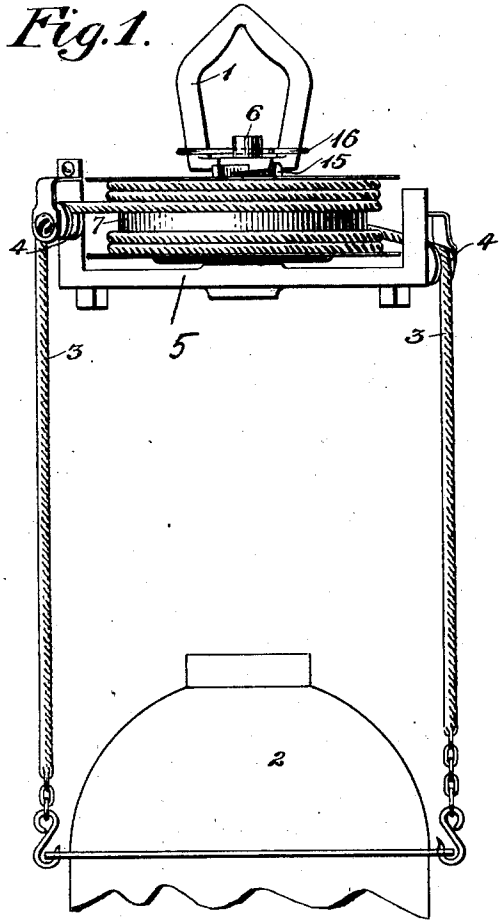


Fig. 3.

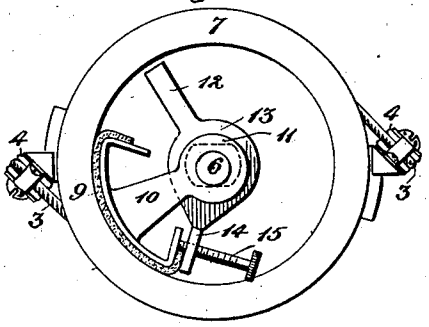


Fig. 4.

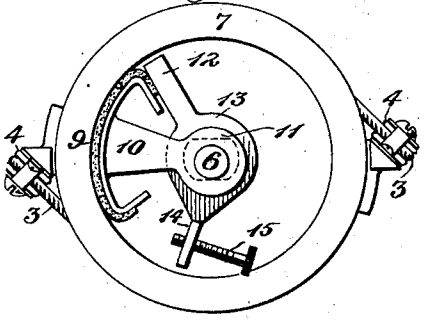


Fig. 2.

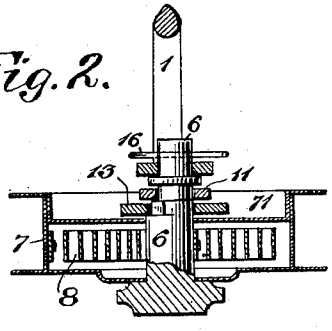


Fig. 5.

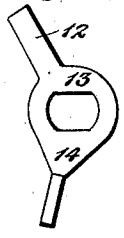
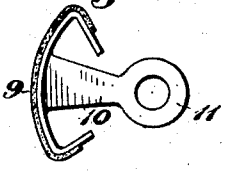


Fig. 6.



Witnesses:
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By his Attorney
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No. 729,093. Patented May 26, 1903.

UNITED STATES PATENT OFFICE.

CONRAD M. PITEL, OF MERIDEN, CONNECTICUT, ASSIGNOR TO EDWARD MILLER & COMPANY, OF MERIDEN, CONNECTICUT, A CORPORATION OF CONNECTICUT.

HANGING LAMP.

SPECIFICATION forming part of Letters Patent No. 729,093, dated May 26, 1903.

Application filed November 4, 1902. Serial No. 130,017. (No model.)

To all whom it may concern:

Be it known that I, CONRAD M. PITEL, a citizen of the United States, residing at Meriden, in the county of New Haven, State of Connecticut, have invented certain new and useful Improvements in Hanging Lamps, of which the following is a full, clear, and exact description.

My invention relates to suspending devices for lamps and other articles.

The purpose of this invention is to provide a suspending device the construction of which is such that a weight less than the lifting power of the spring may be adjusted to any desired elevation and there suspended. In devices of this kind it has been customary to employ a spring to operate a barrel which winds up suspending cords or chains carrying the weight. Heretofore it has been customary to employ a weight which has acted substantially as a counterbalance to the spring, so that at whatever elevation the weight was placed it would remain there. In such cases while the power of the spring is not sufficient to elevate the weight it is nevertheless sufficient to hold it at any elevation. Manifestly in such a construction if the weight of the load were less than the lifting power of the spring it would be impossible to sustain it at any desired point within the range of the supporting cords or chains, since the spring would elevate it to its highest position.

It is my object to provide a suspending device for lamps and other articles which, while the spring employed is more than powerful enough to alone elevate the weight or the load, is so constructed that the weight may be adjusted to any desired height and be held in suspension so long as desired.

In the drawings, Figure 1 is a side elevation. Fig. 2 is a section of certain details of construction. Fig. 3 is a plan view of the upper part of the suspending device. Fig. 4 is a similar view. Figs. 5 and 6 are details.

1 is a loop.

2 is a conventional representation of a weight—for example, a lamp or any other load.

3 3 are cords or chains suitably connected with the weight 2.

4 4 are pulleys over which the chains may pass.

5 is a frame.

6 is a central stud or post. The frame 5 is connected with the loop 1 through the medium of said center stud or post 6, and it will be seen that the frame has no independent rotative movement relatively to the loop, the function of the loop being to suspend the entire apparatus from a suitable overhead hook or other device. 7 is a barrel revolubly mounted thereon and to which the cords 3 3 are secured and around which they may wind.

8 is a spring secured to the post 6 at one end and to the barrel or drum 7 at its other end. The spring 8 tends to revolve the barrel or drum 7 and wind the cords or chains 3 3 thereon. It follows that the tendency of the spring 8 is to lift the weight 2. If the weight is less than the lifting or the sustaining power of the spring, it cannot be placed at any desired elevation and there left, because the action of the spring would be to elevate it to its highest position. To prevent this, I employ certain means which will coact with the barrel and other parts in such a manner that although the weight may be less than the sustaining power of the spring it may be suspended and held at any desired elevation within the range of the cords 3 3. This means comprises a friction-brake 9, which may bear against the inner wall 7′ of the barrel 7 to produce the desired restraint. The brake 9 is carried by an arm 10, in the body of which may be formed an eye 11, adapted to take a bearing upon the post 6, which may be specially formed so as to be eccentric to the axis of rotation of the barrel 7. (See Fig. 2.)

12 is a stop, the body 13 of which is fixed upon the central post 6 in any desired manner. The body 13 may have another extension 14, adapted to receive an adjusting-screw 15, which also acts as a stop.

When the parts are assembled, any convenient means—for example, a pin 16—may

be passed through a hole in the upper end of the post 6, and the ends of said pin may be bent around the hanger-loop 1 to hold it and prevent it from rotating on the post.

The operation is as follows: Assume the weight 2 is in the position indicated in Fig. 1, the brake will be in the position indicated in Fig. 3. When the operator lifts the weight, the barrel 7 will rotate under the action of the spring, the said spring being sufficiently strong to overcome the frictional engagement of the brake on said barrel, but not sufficient to overcome said friction plus the full weight of the part 2. When the operator desires to lower the weight, the same is pulled down and the barrel rotates in the reverse direction, swinging the brake 9 from the position indicated in Fig. 3 to the position indicated in Fig. 4, lessening the frictional engagement between the brake and drum, so that the operator has merely to overcome the resistance of the spring. When the weight has been placed at the desired elevation and the operator releases his hold, the spring will raise it slightly by revolving the barrel 7, which revolution will swing the brake 9 from the position indicated in Fig. 4 to the position indicated in Fig. 3, where, as before stated, the resistance of the brake against the drum will, plus the downward drag of the weight 2, be sufficient to overcome the lifting tendency of the spring, and hence the weight will be supported at that position. If in the course of time the spring should become weakened and the resistance of the brake should be found to be too great, it is merely necessary to advance the adjusting-screw 15 to a sufficient extent to stop the brake before the excessive friction is applied to the drum. One advantage of this construction is that a very heavy spring may be employed, so that should it become weakened in time there will still be a large margin of excess power available for use by merely readjusting the throw of the brake.

What I claim is—

1. A device of the character described, a hanger-loop, a frame supported thereby and having a fixed position relatively thereto, a revoluble drum, a spring for driving said drum, a weight suspended therefrom, the power of the spring being more than that required to sustain said weight, a swinging brake coacting with the annular inner wall of said drum and mounted eccentrically of the axis of said drum and offering a resistance to the rotative action thereof induced by the spring, the resistance of the brake plus the weight being sufficient to counterbalance the lifting power of the spring.

2. A device of the character described, a hanger-loop, a frame supported thereby and having a fixed position relatively thereto, a revoluble drum, a spring for driving said drum, a weight suspended therefrom, the power of the spring being more than that required to sustain said weight, a swinging brake coacting with the annular inner wall of said drum and mounted eccentrically of the axis of said drum and offering a resistance to the rotative action thereof induced by the spring, the resistance of the brake plus the weight being sufficient to counterbalance the lifting power of the spring, and means for varying the frictional resistance of the brake, said means comprising an adjustable stop located to check the forward swing of said brake.

Signed at Meriden, Connecticut, this 30th day of October, 1902.

CONRAD M. PITEL.

Witnesses:
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