

Feb. 25, 1930.

B. GOTTLIEB

1,748,601

ELECTRIC CORD TAKE-UP

Filed Nov. 8, 1927

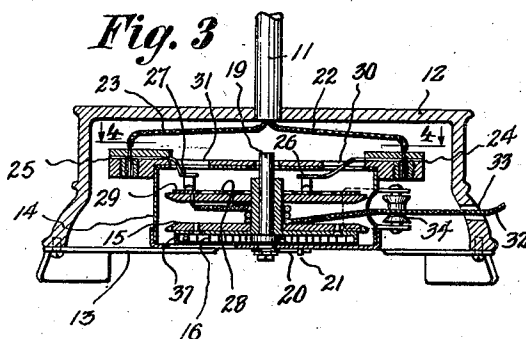
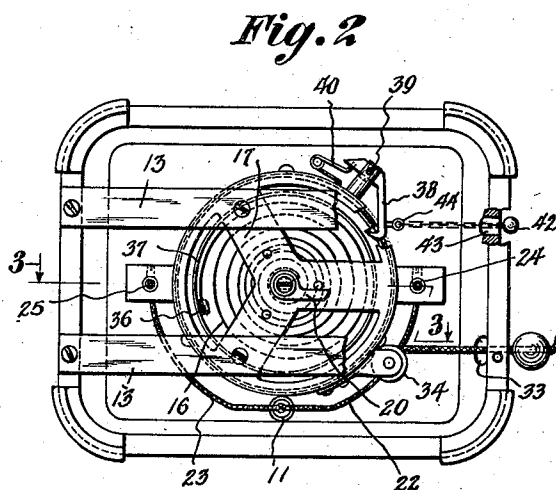
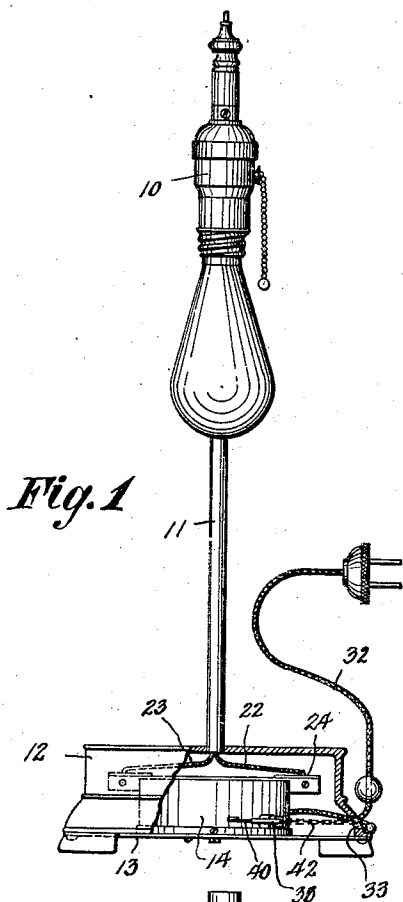


Fig. 4

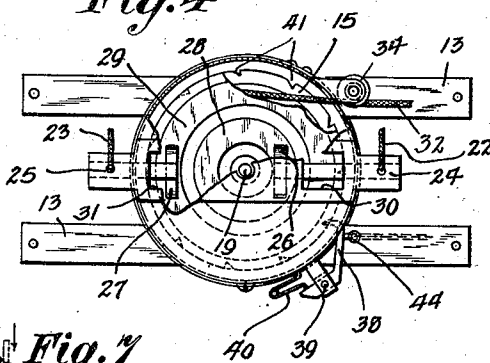


Fig. 5

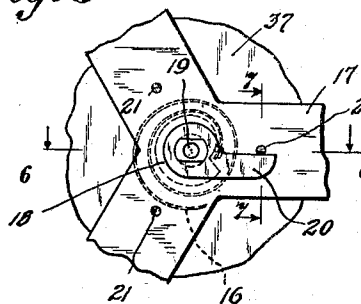


Fig. 7

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UNITED STATES PATENT OFFICE

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ELECTRIC-CORD TAKE-UP

Application filed November 8, 1927. Serial No. 231,969.

This invention relates to electrical appliances and has particular reference to adjustable cords or electric wires such as are used in connection with electric lamps, flat irons, hair curlers, and many other analogous appliances.

Among the objects of the invention is to provide an unusually compact casing or base mechanism for an article such as a table lamp or its equivalent for the housing of an electric cord of any desired or suitable length and for adjustment of the effective length thereof beyond the lamp base or the like according to the space or interval between the lamp and the socket into which the cord is plugged.

A further object of the invention is to provide manual means for controlling the automatic taking up or winding of the cord upon a reel or its equivalent so as to prevent an undesired portion of the cord from lying loose between the lamp and the socket. I wish it to be understood, however, that where the term "lamp" is used herein it should be understood in a sense broad enough to cover all types of electrical apparatus.

With the foregoing and other objects in view the invention consists in the arrangement and combination of parts hereinafter described and claimed, and while the invention is not restricted to the exact details of construction disclosed or suggested herein, still for the purpose of illustrating a practical embodiment thereof reference is had to the accompanying drawings in which like reference characters designate the same parts in the several views, and in which—

Figure 1 is a side view of an electric lamp equipped with my improvement, a portion of the base being broken away.

Fig. 2 is a bottom plan view of the same on a larger scale.

Fig. 3 is a vertical sectional view on the broken line 3—3 of Fig. 2.

Fig. 4 is a horizontal view with parts in section on the line 4—4 of Fig. 3.

Fig. 5 is a fragmentary view of a portion of the structure of Fig. 2 on a larger scale.

Fig. 6 is a vertical sectional view on the line 6—6 of Fig. 5.

Fig. 7 is a transverse section on the line 7—7 of Fig. 5.

Referring now more specifically to the drawings I show my improvement as embodied in a table lamp having a head 10 mounted upon a goose neck or upright support 11 carried by a base 12, the upright 11 extending upward from any desired portion of the base as at one side of the center thereof as indicated in Fig. 2.

Secured within the base 12 and supported as upon a pair of arms or brackets 13 is a casing 14 of cylindrical form preferably for the housing of a reel 15 and a spiral spring 16 and other details incident to these parts. The bottom or base framework includes a bracket 17 having a center bearing 18 in which is mounted or secured a center post 19 having an anchor member 20 connected thereto below the bracket 17. The bracket is shown provided with a series of three pins 21 over which the anchor member 20 is adapted to snap in succession as indicated by the dotted lines and arrow of Fig. 7 in making a preliminary adjustment of the strength of the spring, a result effected by the rotation of the anchor member 20 in a clockwise direction as indicated in Figs. 2 and 5 by the use of a suitable tool applied to the anchor member or its post 19. Except as just stated, the center post 19 is held stationary and around it the reel 15 is adapted to be rotated in either direction.

The cord leading to the lamp comprises two leads 22 and 23 which are extended along the support 11 and are branched from each other within the base 12 and attached at 24 and 25 respectively to a pair of brushes 26 and 27 which have constant bearing contact with a pair of rings 28 and 29 respectively mounted upon the upper surface of the reel and suitably spaced from each other. I may state at this time once for all that suitable insulation is used wherever necessary to carry out the purposes of the invention. The brushes 26 and 27 are stationary as is also the casing 14 into which they project through openings 30 and 31 respectively.

The adjustable cord 32 is guided through a hole 33 in the base, over any suitable or anti-

friction rollers 34, inward through a hole in the side of the casing 14, and is wound upon the reel 15, the inner end of the cord being parted with the two wire portions thereof attached respectively to the rings 28 and 29, whereby such inner end of the cord 32 has permanent connection with the reel. The electrical contact between the two cords or wires being completed through the brushes and rings, the contact is complete at all times irrespective of the rotation or position of the reel.

The inner end of the spring 16 is connected to the center post 19 or its anchor means and hence is normally stationary, while the outer end of the spring is connected by means of a hook 36 constituting a part of a shallow shell or casing 37 attached to the lower surface of the reel and serving to house the spring.

During the assemblage of the device a suitable portion of the cord 32 is wound upon the reel and after being inserted into the casing the proper degree of tension is established in the spring by rotation of the center post 19 and anchor member 20. To elongate the cord 32 the operator simply grasps it and pulls it out through the hole 33, the reel paying out the cord accordingly and storing increased power in the spring 16. As a suitable means to hold the reel in such position with the spring wound up I provide a spring-pressed dog 38 pivoted at 39 and held by means of an expansion spring 40 with its point engaged in any one of a series of notches 41 formed in the periphery of the reel 15. This dog 38 and notches 41 operate in one direction only and normally hold the spring from unwinding and the cord 32 from being retracted or wound upon the reel. Easy means, however, is provided to release the dog as by a pull piece 42 comprising a knob and chain extending through a guide hole 43 in the base and attached at 44 near the end of the dog. When this pull piece is drawn by the operator's fingers against the force of the spring 40, the reel is set free to wind up the cord under the force of the main spring 16. When a sufficient length of the cord is so wound up the operator simply releases the pull piece 42, making the dog again effective at 38 to hold the reel in place.

I claim:

1. In an electric cord take up, a base in the form of an outer casing, an electrically operated device supported thereon, a substantially closed inner box casing housed within the said outer casing in spaced relation to the wall of the latter, a reel for an electric cord within the inner casing, spring actuated means to rotate the reel, commutator rings on the reel connected to the electric cord, brushes to electrically contact the commutator rings, means to connect the electrically operated device to said brushes, means mounted externally on the upper portion of the inner

casing in the space between the same and the outer casing to carry the brushes, the inner casing having openings through which the brushes extend from the carrying means therefor into contact with the commutator rings, and releasable means alongside the inner casing in the space between the same and the outer casing to hold the reel in set position against the tension of the spring.

2. In an electric cord take up as set forth in claim 1, wherein the inner casing is positioned above the bottom of the outer casing, affording a space beneath said inner casing, and means is positioned in said space beneath the inner casing for initially setting the tension on said spring.

In testimony whereof I affix my signature.
BENJAMIN GOTTLIEB.