N. S. CAMERON.
TAKE-UP DEVICE FOR ELECTRIC LAMP CORDS AND THE LIKE.
APPLICATION FILED DEC. 18, 1914.

2 SHEETS-SHEET 1.
To all whom it may concern:

Be it known that I, NEIL S. CAMERON, a subject of the King of Great Britain, residing at Weed, in the county of Siskiyou and State of California, have invented new and useful Improvements in Take-Up Devices for Electric-Lamp Cords and the like, of which the following is a specification.

This invention relates to improvements in take-up devices for electric lamp cords and the like and has particular application to a spring controlled take-up device.

In carrying out the present invention, it is my purpose to provide a device of the class described which may be readily applied to the cord and supported by the latter and whereby the cord may be paid out from the device and maintained in such condition so that the lamp may be carried to any desired position and whereby the cord may be automatically taken up when the person employing the lamp has finished with the latter and wishes to take up the slack in the cord.

It is also my purpose to provide a device of the type set forth which will operate efficiently and effectively for its intended purpose; which will embody comparatively few parts and these so correlated and arranged as to reduce the possibility of derangement to a minimum; and which may be manufactured and marketed at a minimum expense.

With the above and other objects in view, the invention consists in the construction, combination and arrangement of parts hereinafter set forth in and falling within the scope of the claims.

In the accompanying drawings: Figure 1 is a view in side elevation of a lamp cord take-up device constructed in accordance with the present invention. Fig. 2 is a vertical sectional view through the device. Fig. 3 is a similar view taken at right angles to Fig. 2. Fig. 4 is an enlarged fragmentary sectional view through the reel.

Referring now to the drawings in detail, 1, 1 designate supporting plates which, in the present instance, are circular in outline. These plates are spaced apart in parallelism and secured to each other by means of bolts 2 passed through alining openings in the respective plates adjacent to the peripheries thereof and maintained in spaced relation by means of spacing sleeves 3 encircling the bolts 2 between the plates and having the opposite ends thereof abutting the inner surfaces of the respective plates. Formed in the plates 1, 1 approximately centrally thereof are alining openings and journeled in these openings is a drum 4 capable of rotation within the openings and having one end thereof projecting beyond the adjacent supporting plate as at 5 and formed on the outer edge of the projecting end portion of the drum is an annular row of ratchet teeth 6.

Disposed concentrically of the drum 4 and fixed to the latter adjacent to the inner surfaces of the respective side plates 1 are circular guards 7 formed of wire or other appropriate material and each of a diameter less than that of the adjacent side plate. These guards are spaced apart in parallel relation and form, with the drum, a reel and are adapted to revolve with the drum as the latter rotates within the bearing openings in the supporting plates.

Surrounding the projecting end 5 of the drum is a spring 8 having the inner convolution thereof fastened to the drum and the outer end secured to a pin 9 carried by the outer surface of the adjacent supporting plate 1. 10 designates a substantially U-shaped yoke having the free extremities of the limbs thereof provided with right angularly projecting feet 11 secured to the outer surface of the base plate 1 carrying the pin 9 at diametrically opposite points and formed in the connecting member of the yoke 10 is an opening 12 alining axially with the drum 4.

Disposed within the opening 12 is a stub shaft 13 and fixed to the inner end of the stub shaft 13 is a plate 14 having the inner face formed with an annular row of teeth 15 de signed to engage the teeth 6 on the adjacent end of the projected portion 5 of the drum 4.

Surrounding the stub shaft 13 between the plate 14 and the connecting member of the yoke 10 is a coiled expansion spring 16 act ing to hold the teeth 15 on the plate normally in engagement with the teeth 6 of the drum. The outer end of the stub shaft 13 is preferably flattened to form a pivot lug 17 and passed through the pivot lug 17 at right angles thereto is a pin 18, while pivoted upon the opposite extremities of the pin 18 are levers 19 capable of relative swinging movement scissors fashion and having the outer ends thereof formed to provide hand grips and the inner ends formed to provide friction shoes engaging the outer surface of the
The drum 4, between the supporting plates 1, 1 is formed with a diametrical slot 20 and one wall of the slot 20, at one end of the slot, opens onto the outer surface of the drum by means of a way 21. In practice, the lamp cord is passed through the way 21 and into the slot 20 and the reel revolved to take up the necessary slack in the cord. When the take-up device is initially applied to the cord the securing bolts 2 and spacing sleeves 3 are removed so that the device may be revolved as an entirety and when the cord has been wound about the drum of the reel to the desired extent the securing bolts and sleeves are replaced and the device ready for operation.

To pay out the cord, the lamp end of the latter is pulled and upon the pulling of the cord the reel unwinds and in this movement of the reel the convolutions of the spring 8 are contracted and the spring placed under tension, but as the shoe ends of the levers 19 are in engagement with the outer surface of the connecting member of the yoke 10 and the teeth 15 on the plate 14 interlocked with the teeth 6 on the projecting end 5 of the drum 4, the drum is prevented from rewinding the cord under the action of the spring. Thus, the lamp may be held in the desired position indefinitely. When the person using the lamp has finished with the latter and desires to rewind the cord on the reel, such person draws the outer ends of the levers 19 together whereby the shoe ends of such levers move likewise and so slide the shaft 18 against the action of the spring 16 to withdraw the teeth 15 from engagement with the teeth 6, thereby relieving the drum 4 of the influence of the braking device or holding device so that the spring 8 may react and rotate the reel in the reverse direction to rewind the cord.

From the foregoing description taken in connection with the accompanying drawing, the construction, mode of operation and manner of employing my invention will be readily apparent. It will be seen that I have provided a lamp cord take-up device whereby the cord may be paid out when desired and automatically rewound, while the component parts of the device are so correlated and arranged that access may be had to the same whenever necessary for cleaning and repairing.

I claim:

In a take-up device of the class described, supporting plates, means holding said supporting plates spaced apart in parallelism, a reel rotatably mounted between said plates and comprising a drum having one end portion projected through one of said plates and beyond the same, a spring surrounding the projecting end portion of said drum and having the inner convolution thereof secured to the drum, a connection between the outer end of said spring and the adjacent supporting plate so that the spring will be placed under tension when the drum is rotated in one direction, a plate engaging the projecting end of said drum, a shaft connected to said plate, a yoke supporting said shaft, levers pivoted to said shaft scissors fashion and having the outer ends thereof formed to provide hand grips and the inner ends formed to provide friction shoes engaging the adjacent portion of said yoke, and a spring acting upon said plate to hold the latter in engagement with the shaft and the friction shoes in engagement with the adjacent portion of said yoke whereby retrograde movement of said drum under the action of said spring will be prevented.

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

NEIL S. CAMERON.

Witnesses:
A. I. PURDY,
J. M. WHITE.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."