

R. J. F. S. BARON.
CABLE CONTROLLER FOR ELECTRICAL APPARATUS.
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972,319.

Patented Oct. 11, 1910.

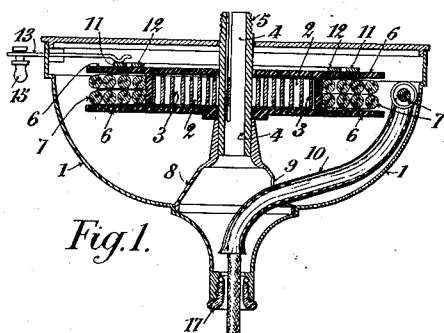


Fig. 1.

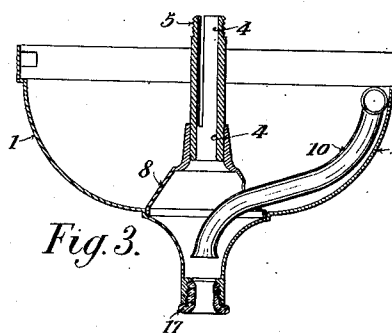


Fig. 3.

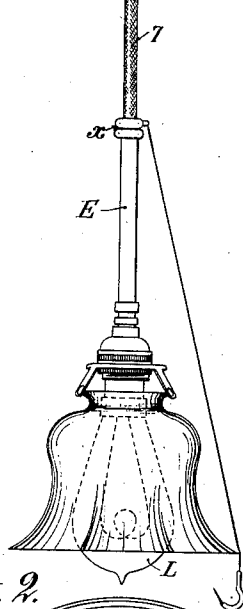
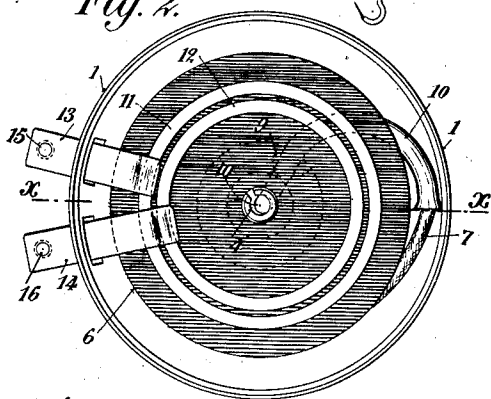


Fig. 2.



Witnesses:
M. H. Darg
L. A. Price

Inventor
René J. F. S. Baron,
By Wm. E. Boulter
attorney

UNITED STATES PATENT OFFICE.

RENÉ JOSEPH FRANÇOIS SAMUEL BARON, OF PARIS, FRANCE.

CABLE-CONTROLLER FOR ELECTRICAL APPARATUS.

972,319.

Specification of Letters Patent.

Patented Oct. 11, 1910.

Application filed January 23, 1906. Serial No. 297,507.

To all whom it may concern:

Be it known that I, RENÉ JOSEPH FRANÇOIS SAMUEL BARON, a citizen of the Republic of France, and residing in Paris, France, have invented a certain new and useful Cable-Controller for Electrical Apparatus, of which the following is a specification.

This invention relates to a movable drum on which are wound up, without taking up too much space, the electric wires connecting a line or a circuit to a lamp, telephone or other electric apparatus, for the purpose of enabling this apparatus to be moved within a larger radius, without the unutilized portion of the wire being in the way. This movable drum is placed against the ceiling or any other fixed partition. It allows the wire to be unwound under the action exercised for moving the electric apparatus, and to be automatically wound up, as soon as the apparatus is replaced under the action of the winding-up spring arranged in the drum. In the event of the drum being arranged at the ceiling of a room, it can be used instead of the suspension arrangement in which balance weights are employed, and enables lamps to be moved vertically, and out of the vertical, within a large radius.

In the accompanying drawing it has been assumed that the movable winding-up and unwinding drum is applied to lamps for lighting, although it could be equally well applied to telephones and bells.

Figure 1 shows in vertical section through the axis an electric lamp suspended below a movable drum fixed to the ceiling. The lamp L is shown in elevation in vertical position. Fig. 2 is a plan of the movable winding and unwinding drum. Fig. 3 is a vertical section of the casing on line *x x* Fig. 2 showing the arrangement of the curved guide bringing the electric cable from the horizontal to the vertical position. Fig. 4 is a plan of said casing seen from the upper part.

The movable drum is covered by a stamped or molded cap 1 secured to the ceiling. The drum is constituted by a circular central chamber 2 in which is mounted a spiral spring 3 one of the ends of which is secured to the drum and the other to the central spindle 4. The spindle of the drum is screw-threaded at 5 in order to enable it to be screwed into a socket or sleeve secured to the ceiling.

Around the spring chamber 2 the drum is provided with metallic cheeks 6 between which is wound the cable 7 consisting of insulated wires conveying the electric current.

The hollow central spindle 4 is welded at the top of a hollow truncated projection 8 fixed in a central circular groove of the casing 1; this projection is cut at 9 on a portion of its outer surface in order to provide a passage for a curved guide 10, traversed by the cable 7 and having a diameter a little larger than the cable. The upper part of said curved guide 10 ends horizontally between the cheeks 6 of the drum and its lower vertical part ends a little above the lower part of the casing 1; this curved guide which is counter-bent at its lower part is welded to the inner wall of the casing 1; it descends gradually and comes out at the end of the casing opposite to the axis of the lower exit opening of this casing 1. Owing to its curved shape, the conduit serves as a brake when the lamp L is suspended and stops it at any point of its descent.

On the upper surface of the ebonite cheek 6 are secured two concentric metallic circles 11 and 12 which are thus insulated. Against each of these circles rests a metallic tongue 13 or 14. At each of the circles or rings 11 and 12 there terminates the end of one of the electric wires constituting the wound-up cable 7, and each contact tongue 13 or 14 is connected either direct or by means of a separate terminal 15 or 16 which places it into communication with the circuit wire. The cable 7 in traversing the counter-bent guide 10 bears against its various curves so that the friction exercised by the guide 10 on the cable 7 suffices to relieve the lamp L from the action of the rolling up spring 3 and allows of its being stopped automatically at any point of its descent without using a stop device. In order to increase the force of the brake action of the guide 10 it is sufficient to increase its length without changing the points where the mouth-pieces of its extremities end.

In the construction illustrated in Figs. 1 and 2 the power of the spring 3 bringing about the automatic winding-up, is regulated in such manner that the weight of the lamp L and of its fittings should not produce alone either the winding or unwinding of the cable 7. The unwinding is then obtained by a pull exercised by hand by pulling a sleeve E arranged above the lamp L, and the wind-

ing is obtained by slightly raising the lamp
L for slackening the cable 7, which being
thus relieved, no longer acts as a brake in
the guide 10 and is immediately drawn back
5 by the spring 3 and wound up between the
cheeks or stands 6. At any point x of the
cable 7 can be secured a stop of a larger
diameter than that of the hole made in the
socket 8 for the purpose of preventing the
10 cable from being drawn in beyond the said
stop when fitting up the lamp.

What I claim as my invention and desire
to secure by Letters Patent is:—

In a winding up device for an electric
15 cable, the combination of a casing, a hollow
vertical spindle within said casing, a wind-
ing-up drum for the cable arranged in the
casing and loosely mounted about said hol-
low spindle, a spiral spring arranged in the
20 central chamber of the drum, one of the ends
of said spring being secured to the drum and
the other to said hollow spindle, two con-
centric metallic circles secured outwardly in

the upper cheek of the insulating material
of the drum, means for connecting said 25
circles respectively to the wires composing
the cable, two metallic friction devices ter-
minating respectively on each of the con-
centric circles and being adapted to dis-
tribute the current of the electric circuit to 30
the wires of the cable, and a curved counter-
bent guide secured to the inner wall of the
casing, said guide being traversed by the
cable and serving to guide it from the hori-
zontal position which it occupied on the 35
drum, to the vertical position in prolonga-
tion of the hollow spindle, and also acting
as a brake upon the cable

In testimony whereof I have signed my
name to this specification in the presence 40
of two subscribing witnesses.

RENÉ JOSEPH FRANÇOIS SAMUEL BARON.

Witnesses:

ALBERT MAULVAULT,
HANSON C. COXE.