

(No Model.)

G. E. SOVEREIGN.
HANGER FOR EXTENSION LAMPS.

No. 349,909.

Patented Sept. 28, 1886.

Fig. 1.

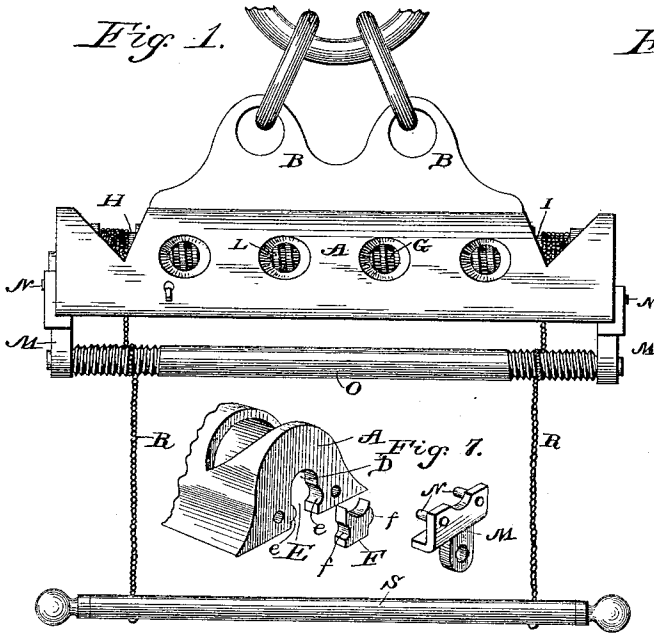


Fig. 4.

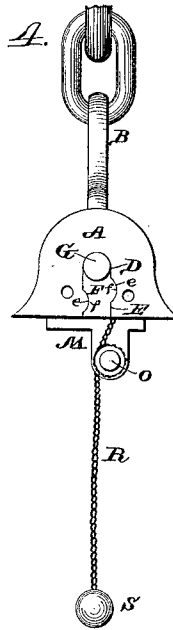


Fig. 2.

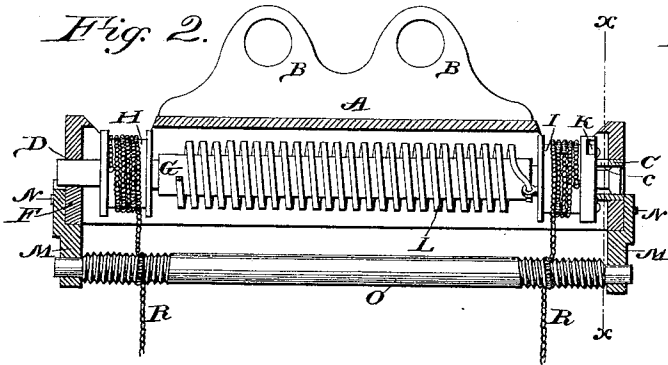


Fig. 3.

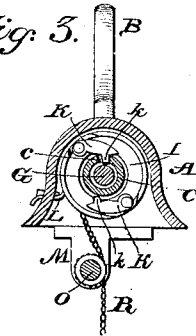
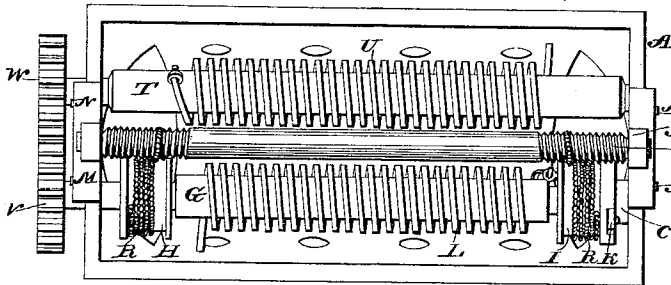


Fig. 5.

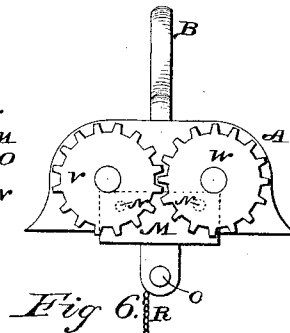


Fig. 6.

Witnesses

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HANGER FOR EXTENSION-LAMPS.

SPECIFICATION forming part of Letters Patent No. 349,909, dated September 28, 1886.

Application filed June 8, 1886. Serial No. 204,498. (No model.)

To all whom it may concern:

Be it known that I, GEORGE E. SOVEREIGN, a citizen of the United States, residing at Pot-
tersville, in the county of Hunterdon and State
5 of New Jersey, have invented a new and use-
ful Improvement in Hangers for Extension-
Lamps, of which the following is a specifica-
tion.

My invention relates to an improvement in
10 hangers for extension-lamps; and it consists
in the peculiar construction and combination
of devices that will be more fully set forth
hereinafter, and particularly pointed out in
the claims.

15 In the drawings, Figure 1 is a side eleva-
tion of a lamp-hanger embodying my improve-
ment. Fig. 2 is a vertical longitudinal sec-
tional view of the same. Fig. 3 is a vertical
transverse sectional view on the line *x x* of
20 Fig. 2. Fig. 4 is an end elevation. Figs. 5
and 6 show a modification. Fig. 7 is a de-
tailed perspective view of one end of the frame,
showing the removable block and the bracket
detached therefrom.

25 The object of my invention is to provide a
hanger for extension-lamps that will enable
the lamp to be raised or lowered to any de-
sired height. This object I attain by the mech-
anism herein described.

30 A represents a cast frame, which is provided
on its upper side with perforated ears B for
the attachment of suspending-chains, which
suspend the frame from the ceiling or other
object. One of the end walls of the frame is
35 provided with an inwardly-extending hori-
zontal hollow stud, C. The other end wall of
the frame is provided with a transverse open-
ing, D, which aligns with the central opening in
the stud. A slot, E, extends from the open-
40 ing D to the lower side of the end wall of the
frame, the sides of the said slot being curved
in the same direction, as at *e*; and in the said
slot is fitted a removable block, F, the sides
of which are curved, as at *f*, and thereby
45 adapted to fit snugly in the curved sides of the
slot and secure the said block firmly therein.

G represents a roller, one end of which is
journaled in the opening D, and the other end
of which is journaled in the hollow stud C.
50 The said roller is provided at opposite ex-
tremities with drums H and I. The drum I
is provided with a pair of gravity catches or

dogs, K, which are pivoted on the outer side
of the said drum and on opposite sides of the
center thereof; and the said dogs are provided
55 with projections *k*, adapted to enter an open-
ing, *c*, which is made in the upper side of the
hollow stud C.

L represents a spring which is coiled around
the roller G, and has one end attached firmly
60 to one side of the frame. The opposite end
of the said coiled spring is attached to the
drum I.

To the end walls of the frame are attached
depending brackets M by means of dowel-
pins N, which enter openings made in the end
65 walls of the frame. In the said brackets, at
the lower ends thereof, is journaled a shaft,
O, the ends of which are provided with screw-
threads. The thread at one end is right-hand-
70 ed, and the thread at the opposite extremity
of the shaft is left-handed, as shown; and the
pitch of these threads corresponds to the thick-
ness of elevating-chains R, which are attached
to the drums I and H, and are wrapped once
75 around the threaded ends of the shafts O and
depend therefrom. A bar, S, is attached to
the lower ends of the elevating-chains R, and
from the said bar is suspended the lamp in
any suitable manner. 80

The operation of my invention is as follows:
The lamp is sustained at any desired elevation
normally by one of the dogs K engaging with
the recess *c* in the frame, thereby preventing
85 the roller having the drums from rotating. The
elevating-chains are coiled on the drums
in the reverse direction from that in which the
spring is coiled on the roller, so that when the
elevating-chains are uncoiled from the drum
90 in lowering the lamp the spring will be more
tightly coiled on the roller, and vice versa. The
function of the shaft O, having the right
and left hand threads, is to rotate as the lamp
is raised or lowered, thereby causing the
95 threads around which the elevating-chains
are coiled to move the said chains laterally,
and thus dispose them properly on the drum
when the chains are being coiled thereon, and
prevent the chains from becoming crossed and
100 entangled on the drums.

In order to raise or lower the lamp a slight
pull is first made on the elevating-chains by
grasping the bar S or the lamp, so as to trip
the dogs and disengage them from the open-

ing c, when the lamp will be free to rise or descend, as will be very readily understood. By making the drums of sufficient capacity and the spring and the elevating-chains of sufficient length the lamp may be raised or lowered to any desired extent, so as to bring the light near the eyes of a person seated in the room, or to elevate it nearly to the ceiling, as may be desired.

Suspended lamps are sometimes of considerable weight, more than the capacity of the form of my invention, hereinbefore described, to sustain. In order, therefore, to adapt the invention for use with heavy lamps I propose to construct it as shown in Figs. 4 and 5, in which I provide the frame or case with two sections arranged side by side. The perforated ears B, for the attachment of suspending-chains, are located on the upper side of the frame, at the center thereof, between the two sections, and the brackets M depend from the ends of the frame and also at the center thereof, thus supporting the right and left hand threaded shaft directly below the center of the frame. The roller G, with the spring, the drums, and the dogs, is journaled in one section of the case, and in the other section thereof, and arranged parallel with the roller G, is a second roller, T. The said roller is also provided with a coiled spring, U, one end of which is attached to the roller, and the other end of the spring is attached to the frame.

On one end of the roller G is a cog-wheel, V, and on one end of the roller T is a similar wheel, W, which meshes with the wheel V, thereby causing the rollers to rotate simultaneously and at the same rate of speed when raising or lowering the lamp. By this construction I provide two springs and rollers to the lamp-hanger, and thus double its power and adapt the same to be used for suspending and raising and lowering heavy lamps.

It will not be necessary to provide dogs to engage the added spring-roller, as the dogs K of the roller G will be found sufficient to lock

both of the geared rollers; but any desired number of the said dogs may be employed.

Having thus described my invention, I claim—

1. The combination, in a lamp-hanger, of the frame having the opening D at one end, and the slot E extending from the edge into the said opening, and the hollow stud C at the other end, the removable block F, adapted to fit in the slot E below the opening D, and the spring roller or drum having one end journaled in the hollow stud C, and the other end journaled in the opening D, substantially as described.

2. The combination, in a lamp-hanger, of the rotating drums or roller, the spring coiled thereon, and the elevating-chains coiled in the contrary direction on the roller, and the dogs or detents to arrest the rotation of the roller, with the shaft O journaled below the roller, and having the right and left hand threads to guide the elevating-chains on the roller, substantially as described.

3. The combination, in a lamp-hanger, of the spring-roller G, the dogs or detents engaging therewith, the elevating-chains attached to the said roller, and the spring-roller T, geared to the roller G, for the purpose set forth, substantially as described.

4. The combination, in a lamp-hanger, of the frame having the roller or drum, the shaft O, below the said roller or drum and having the right and left hand threads, and the elevating-chains attached to the roller or drum and passed around the threads of the shaft O, for the purpose set forth, substantially as described.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

GEORGE E. SOVEREIGN.

Witnesses:

JOSEPH S. WAUGH,
AMOS C. RATHBUN.