(No Model.)

N. McLEOD.

MACHINE FOR RAISING OR LOWERING ELECTRIC LIGHTS.

No. 585,778. Patented July 6, 1897.

Fig. 1.

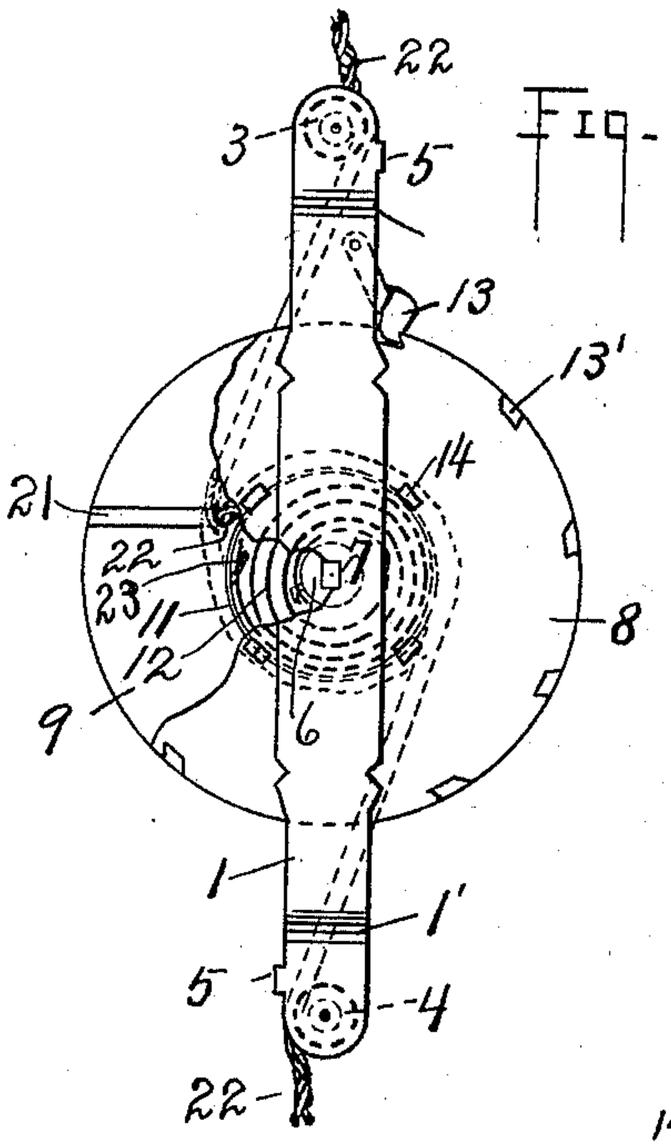


Fig. 6.

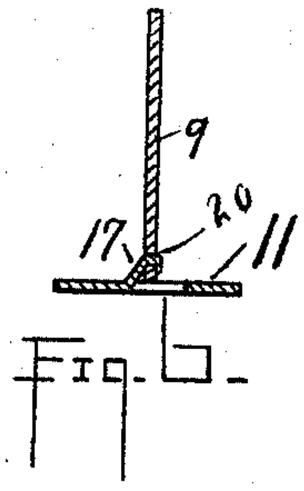


Fig. 2.

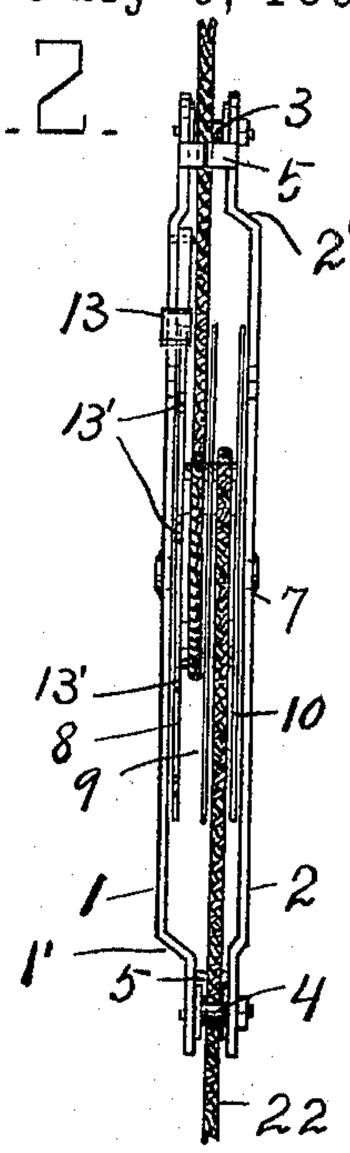


Fig. 3.

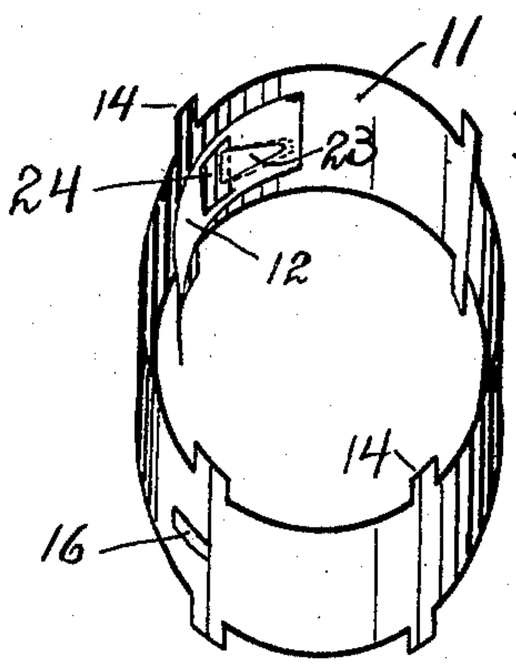


Fig. 4.

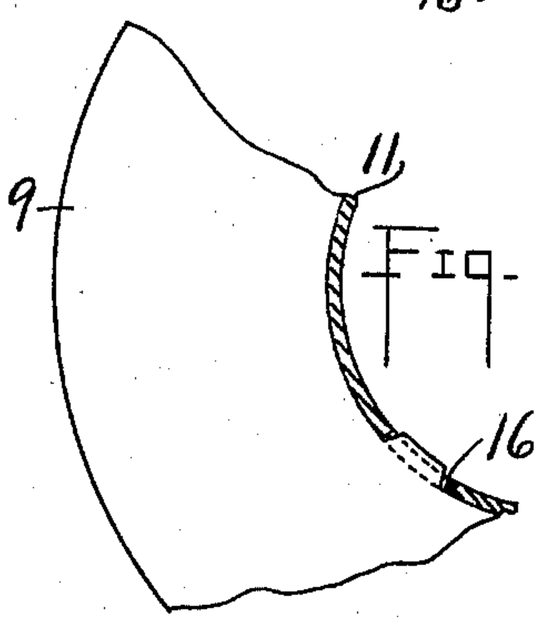


Fig. 5.

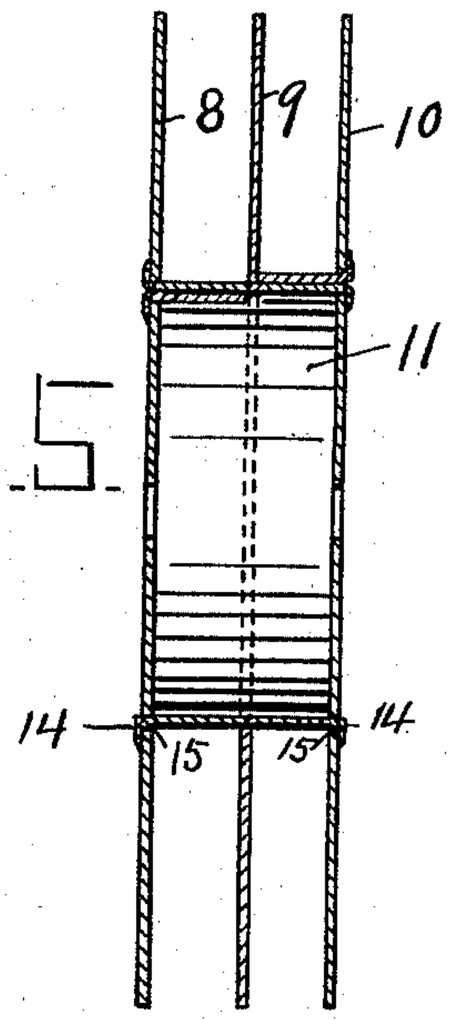
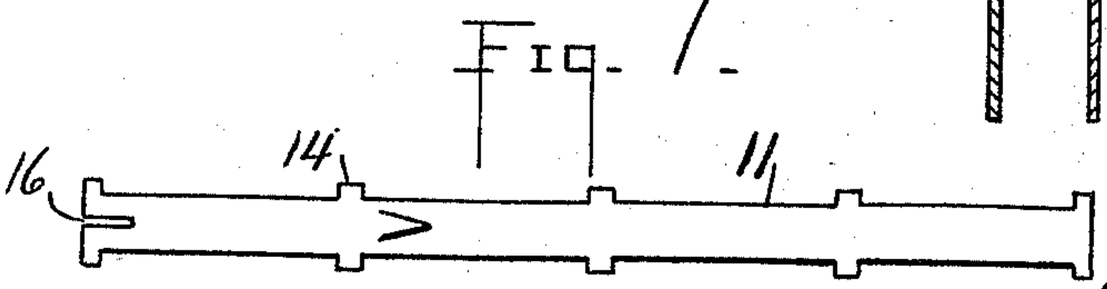


Fig. 7.



Witnesses
C. M. Catlin.
Wm. S. Hodges.

Inventor
Nelson McLeod
By Benj. R. Catlin
Attorney

UNITED STATES PATENT OFFICE.

NELSON McLEOD, OF CANNINGTON, CANADA.

MACHINE FOR RAISING OR LOWERING ELECTRIC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 585,778, dated July 6, 1897.

Application filed September 28, 1896. Serial No. 607,272. (No model.) Patented in Canada May 27, 1896, No. 52,422.

To all whom it may concern:

Be it known that I, NELSON MCLEOD, a resident of Cannington, Ontario, Canada, have invented certain new and useful Improvements in Machines for Raising or Lowering Electric Lights and other Objects, (for which I have obtained a patent in Canada, No. 52,422, bearing date May 27, 1896;) and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use the same.

The invention relates to devices for raising and lowering lamps, and is primarily intended for use with electric lights; and it has for its object to improve and cheapen the construction; and it consists in the particulars hereinafter pointed out.

In the accompanying drawings, Figure 1 is a broken elevation. Fig. 2 is an edge elevation. Fig. 3 is an isometric view of a detail. Figs. 4, 5, and 6 are sectional views of details. Fig. 7 is a plan of a blank.

Numerals 1 and 2 denote the side bars of a frame for the suitable support of a cord-reel.

3 and 4 denote upper and lower pulley-guides for the cord.

5 indicates cord-retaining guards or stops made integral with the side bars of the frame and oppositely situated, as shown. The side frame-bars are bent, as shown at 1′ and 2′, respectively, whereby the pulleys and guards are situated each directly in or near the plane of its corresponding cord and cord-receiving pulley of the reel or drum.

6 indicates a cylindrical shaft or axis fixed in the frame by its ends made angular and upset at 7 on the exterior of the side bars.

The reel comprises two disks 8 and 10 and an annulus 9, held in suitable relation to each other by a bent strip 11, secured to the disks and to the inner edge of the annulus in a novel manner, as hereinafter described.

12 denotes a coiled spring having one end fixed to the shaft and the other to the reel, said spring being adapted, as usual in this class of drop-light hangers, to raise the light.

13 is a holding-pawl which engages with notches 13′, formed in the edge of disk 8, and prevents the operation of the spring until the pawl is moved out of engagement. This is effected by slightly pulling down the light or other suspended object to withdraw the pawl from a notch, whereupon the suspended article or suspending-cord being released the spring will wind the suspending-cord and raise the article, the pawl being carried over one or more notches by its inertia.

The metal strip 11 is provided with lips or flanges 14, integral therewith and adapted to be passed through slits or narrow openings 15, suitably formed and arranged in the outer disks 8 and 10, the strip being bent to form a ring. A blank or strip for forming such ring and its connections is shown in Fig. 7. These lips, when upset or clenched, hold the parts in fixed relation to each other.

16 denotes a slot formed in one end of the strip and arranged to receive its opposite end, so that the lips provided on each end may overlie each other on each side and be upset or clenched together.

The annulus 9 may be soldered to the bent strip around its median line before the exterior disks are attached, as above stated. It may be secured by lips 17, formed from the bent strip and bent up therefrom and passed through holes 20, made in the contiguous edge of the annulus 9 and clenched or upset.

The outer overlapped end of the bent strip may in some cases abut edgewise against the wall of the annulus, adding to the efficiency of the connection. Preferably adjacent to this connection of the ends of the strip and the disks and annulus the latter is provided with a slot 21 to receive the cord 22, which in the case of electric lights will comprise insulated conductors. This cord is entered in the slot and its ends oppositely wound on the reel, so as to extend in opposite directions from the reel, as usual in this class of devices.

The coiled spring is detachably secured to the reel by the engagement of its outer end, suitably slotted at 24, to a tongue 23, formed integrally with the strip.

Having described my invention, what I claim is—

1. In a device for raising and lowering a light or other object, the combination of the frame comprising the side bars each having an oppositely-bent end and provided with cord-guides integral therewith and a shaft fixed on said bars, with a reel rotatable on said shaft, a cord having parts oppositely

wound on the reel, and cord-pulleys supported between the side bars adjacent their bent ends, and with a spring and spring-drum, the latter being composed of separate sheet-metal disks constituting the ends of the reel and connected by a separate intermediate bent strip or cylinder of sheet metal and a separate annulus 9 also secured to said strip, substantially as described.

2. In a device for raising and lowering a light or other object, a reel composed of disks and an annulus, said disks and annulus being secured to each other and to a bent strip or cylinder by lips integral with the strip and clenched to said parts and said bent strip, substantially as described.

3. In a device for raising and lowering a light or other object, a reel composed of a bent strip or cylinder, disks and an annulus, said disks and annulus being secured to each other and to the bent strip by lips integral with the strip and clenched to said parts, in combination with the shaft and a coiled spring, said spring being attached at one end to the strip by a tongue and slot, formed in the strip and spring respectively and at the other end to the shaft, substantially as described.

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

NELSON McLEOD.

Witnesses:
A. A. MacKenzie,
Frank Campbell.