(No Model.)

F. P. WELSH.

DEVICE FOR RAISING OR LOWERING SUSPENDED ELECTRIC LIGHTS.

No. 488,298. Patented Dec. 20, 1892.

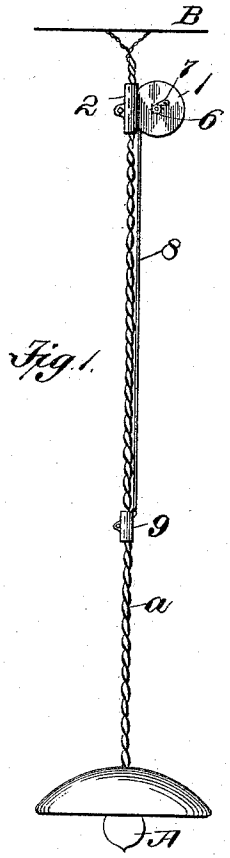

Fig. 1.

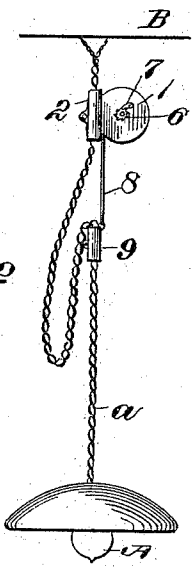

Fig. 2.

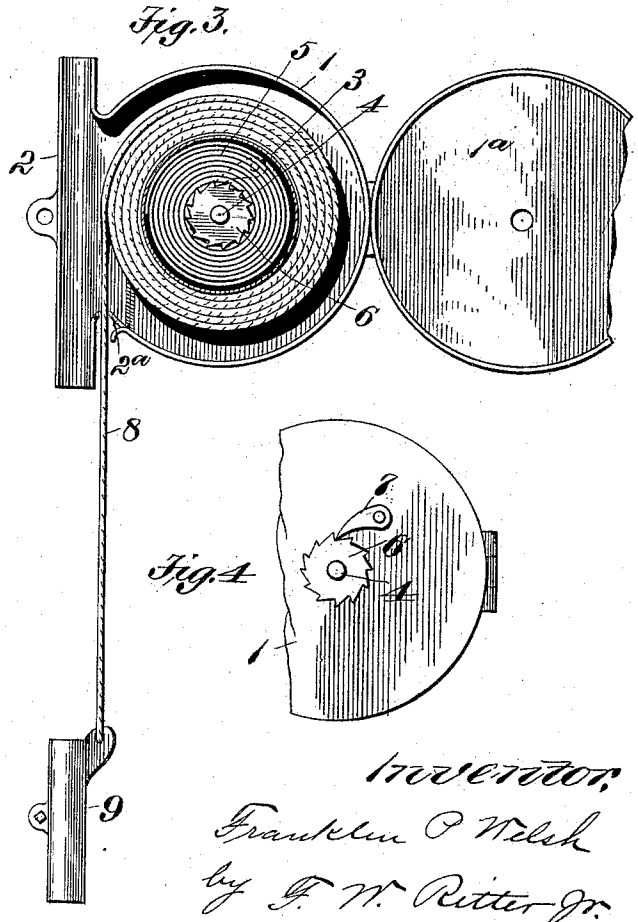

Fig. 3.

Fig. 4.

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UNITED STATES PATENT OFFICE.

FRANKLIN P. WELSH, OF OMAHA, NEBRASKA.

DEVICE FOR RAISING OR LOWERING SUSPENDED ELECTRIC LIGHTS.

SPECIFICATION forming part of Letters Patent No. 488,298, dated December 20, 1892.

Application filed June 14, 1892. Serial No. 436,727. (No model.)

To all whom it may concern:

Be it known that I, FRANKLIN P. WELSH, a citizen of the United States, residing at Omaha, in the county of Douglas, State of Nebraska, have invented certain new and useful Improvements in Devices for Raising and Lowering Suspended Electric Lights; and I hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, wherein—

Figure 1 is a view of the devices embodying my invention applied to a suspended incandescent light the light being lowered in its lowest position. Fig. 2 is a similar view, the light being raised. Fig. 3 is an enlarged view of the devices, detached from the light and the case being opened to show the mechanism. Fig. 4 is an enlarged detail view of a portion of the case showing the ratchet on the end of the pin shaft and the brake or dog acting on the ratchet.

Like symbols refer to like parts wherever they occur.

My invention relates to the construction of devices for raising and lowering suspended incandescent lights or for readily converting the said flexibly suspended lights into drop lights; and has for its object the production of a simple efficient and compact mechanism which can be easily attached to and detached from the suspension and conducting cords of incandescent and like lights by unskilled labor, after the fixtures are in place, without the aid of tools and without disfiguring the walls, ceiling or conducting cords.

To this end the invention, generally stated, embraces the combination with a spring drum case having a cord clamp or equivalent means for attaching the same to the suspension and conducting cord of the light, of a spring drum, and cord or like flexible connection provided with a clasp or clamp for securing the same to the suspension and conducting cord of the light at a point distant from the case clamp—the whole adapted to be attached to and detached from the suspension cord of the light,—all substantially as will hereinafter more fully appear.

I will now proceed to describe my invention more specifically so that others skilled in the art to which it appertains may apply the same.

In the drawings A indicates an incandescent lamp suspended from a ceiling B by the usual suspension and conducting cord *a*.

1 indicates the case of the devices embodying my invention, which case may be of any desired form or construction provided it is adapted to contain a spring actuated drum and is provided with a clasp or clamp by which said case can be readily attached to and detached from the conducting and suspension cord *a*. Preferably the case 1 is about an inch and a half ($1\frac{1}{2}$) or two (2) inches in diameter, about three-quarters ($\frac{3}{4}$) of an inch thick and of general cylindrical form to accommodate the spring actuated drum contained therein, and may be made with the hinged or cover section 1^a, the case and cover having formed thereon one section of a suspension cord clamp 2—though the case 1 may have attached thereto any other of many well known forms of clamp—if preferred.

3 indicates the spring actuated drum arranged within the case and having a shaft or journal pin 4 to which it is connected by its actuating spring 5—said shaft having on its outer end a ratchet 6 with which engages a pawl 7 to control the tension of the actuating spring.

Attached to the periphery of spring actuated drum 3 and wound upon the same in reverse direction to the coil of actuating spring 5, is a cord or equivalent flexible connection 8 which passes out of the case in line with and adjacent to the clasp or clamp 2 through a small opening 2^a, said cord having at its free end a clamp or clasp 9 adapted, like the clamp 2, to be secured to the suspension and conducting cord *a* of the electric light at a point some distance below the case. The cord 8 should be of sufficient length to give the required rise and fall of the light A, and the tension of the coil spring 5 within the drum can readily be adjusted to the suspended weight (light &c.) by means of the pawl and ratchet on the drum shaft.

The devices being constructed substantially as hereinbefore specified are applied to use as follows—First clamp the case 1 to the upper part of the suspension and conducting cord *a* at the desired height (preferably near the ceiling) by means of the case clamp 2, next draw down the clamp 9 and the cord 2 until it projects below the case 1 substantially the

desired length of drop required for the light, and then attach clamp 9 to the suspension and conducting cord *a* as shown in Fig. 1, after which the desired tension of coiled-drum actuating spring 5 can be adjusted by means of the brake and ratchet as before specified.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. In devices for raising and lowering incandescent—and like flexibly suspended—lights, the combination with a case having a contained spring actuated drum, of means for clamping said case to the suspension and conducting cord, and a flexible connection secured to the spring actuated drum, and provided with a clamp for attachment to the suspension and conducting cord of the light, substantially as and for the purposes specified.

2. In devices for raising and lowering incandescent—and like suspended—lights, the combination of a case having a clamp for the attachment of said case to the suspension cord of the light, a spring actuated drum, arranged within the case and having a shaft provided with a ratchet, a pawl to engage the ratchet, and a flexible connection secured to the spring actuated drum, and provided with a clamp for attachment to the suspension cord of the light; substantially as and for the purposes specified.

In testimony whereof I affix my signature, in presence of two witnesses, this 8th day of June, 1892.

FRANKLIN P. WELSH.

Witnesses:
H. L. DAY,
C. F. HARRISON.