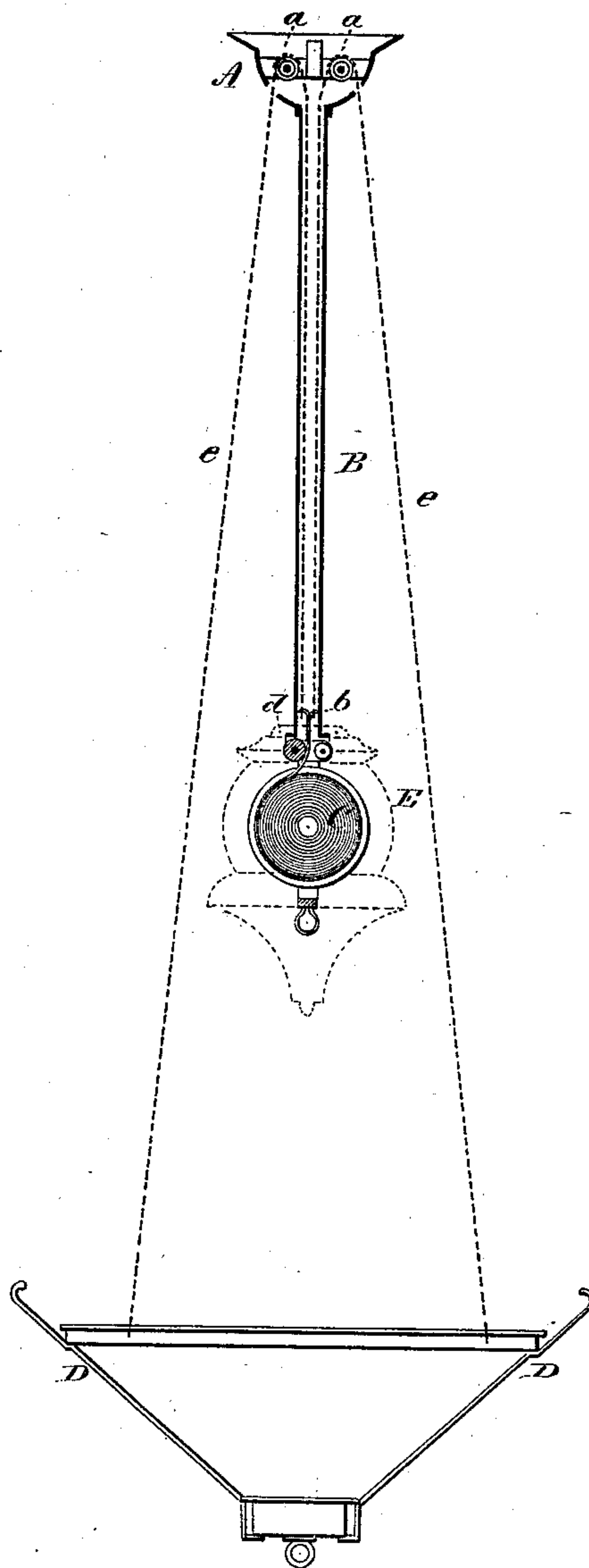


(No Model.)

A. H. JONES.  
EXTENSION LAMP FIXTURE.

No. 254,022.

Patented Feb. 21, 1882.



Witnesses:  
J. H. Chumney  
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Augustus H. Jones.  
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By atty.  
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# UNITED STATES PATENT OFFICE.

AUGUSTUS H. JONES, OF MERIDEN, CONNECTICUT, ASSIGNOR TO BRADLEY & HUBBARD MANUFACTURING COMPANY, OF SAME PLACE.

## EXTENSION LAMP-FIXTURE.

SPECIFICATION forming part of Letters Patent No. 254,022, dated February 21, 1882.

Application filed December 19, 1881. (No model.)

*To all whom it may concern:*

Be it known that I, AUGUSTUS H. JONES, of Meriden, in the county of New Haven and State of Connecticut, have invented a new Improvement in Extension Lamp-Fixtures; and I do hereby declare the following, when taken in connection with the accompanying drawing and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawing constitutes part of this specification, and represents a vertical central side view.

This invention relates to an improvement in that class of lamp-fixtures which are designed to be attached to the ceiling, and so that the lamp or lamps may be drawn down to different elevations, commonly called "extension lamp-fixtures," the object of the invention being to apply a spring for the adjustment of the fixture instead of the weight usually employed, and arrange the spring in a position which will serve as an ornament to the fixture; and the invention consists in a coil-spring arranged at the lower end of a tube extending down from the ceiling toward the lamp, with two or more chains, cords, or equivalents therefor attached to the spring and running upward over the pulleys above and down to the lamp-supports, so that in drawing down the lamp-supports the spring will be uncoiled, and as the lamps are raised the reaction of the spring will cause it to rewind, as more fully hereinafter described.

A represents the basket-like ornament, which serves as the termination of the fixture at the top, and within which are the pulleys or supports *a a*, over which the chains work.

B is a tube attached to the upper part, A, of the fixture, and so as to be stationary. To the lower end of this tube a coil-spring, C, is attached and arranged in a suitable barrel, the one end, *b*, of the spring passing up into the tube over an anti-friction pulley, *d*. To that end *b* one end of the chains *e e* is attached. The chains, running up through the tube over the pulleys or supports *a a* and downward, are attached to the lamp-supports D below, and so that by drawing down the lamp-supports the chains pull the end of the band up into the tube, the spring yielding for such movement, and then when the supports are raised the re-

action of the spring draws the chains back again into the tube. The spring which I employ, and which I show in the accompanying illustration, is that for which Letters Patent were granted to John A. Evarts, April 7, 1868, No. 76,317, and upon which I make no claim, except as in combination hereinafter described.

I prefer to attach the chains to the band inside the tube; but they may come down outside the tube and attach to a cross-head which extends through the tube; or the support for the spring may be rods, which would be practically a tube with vertical slots through its sides.

The spring is inclosed by an ornamental shield, E, which forms a termination or tip for the central stationary tube or spring-support, B.

By this construction the horizontal position of the lamp is maintained, because the ends of the chains are attached to the one common spring. Hence, if the whole strain of pulling downward be brought upon one chain, the other chain moves correspondingly, so that wherever the power be applied all the chains must move alike. Hence the lamp-supports are always maintained in a level or horizontal position. This construction therefore overcomes a serious difficulty which has heretofore existed in this class of lamps in which a ring-shaped weight is employed, (this being the most common and usual construction,) because in such ring-shaped weights the ends of the respective chains are attached to the ring at different points, so that if the power be applied more strongly or with greater force at one point of the lamp-support, the chain at that point will be drawn down more rapidly than the other chain or chains. Hence the lamp-support will be correspondingly tipped, and the weight itself has not the power to bring the fixture back again into its level position, for if tipped down at one side it will remain so unless adjusted by hand. This same difficulty exists where several long spiral springs are employed at different points on the fixture. The power being applied with greater force at one point draws upon the spring nearest that point more heavily than upon the others. Hence the lamp-supports will be accordingly tipped out of the level; but in that case the springs have not the capacity of bringing the lamp-supports back into a level or



horizontal position, provided the power of the springs be equal; but if, as frequently occurs, the power of the springs is different, then the level position of the lamp is impossible—a serious difficulty with that class of fixtures. This construction also obviates a difficulty which has existed in the employment of this same class of Ewart's spring when applied to the top and the fixture attached directly to the end of the band, so that when pulled down the end of the band would come down accordingly and rewind as the fixture was raised.

The attachment of the fixture to the spring is at a single or central point. Hence there is nothing to prevent more or less rotation to the lamp-support—a serious difficulty in that class of springs.

From the foregoing it will be understood that I do not broadly claim the arrangement of a spring by which the elevation of a lamp-fixture may be adjusted; but

What I do claim is—

1. In an extension lamp-fixture, the combination of the pulleys *a a*, a coiled spring arranged below said pulleys and rigidly supported, with two or more cords or chains attached by one end to said spring running upward over said pulleys, thence downward, and respectively attached to the lamp holder or support, substantially as described.

2. In an extension lamp-fixture, the combination of the pulleys *a a*, a coiled spring arranged below said pulleys and rigidly supported, with two or more cords or chains attached by one end to said spring, running upward over said pulleys, thence downward, and respectively attached to the lamp holder or support, with the shield *E* inclosing said spring, substantially as described.

AUGUSTUS H. JONES.

Witnesses:

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