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F. A. BURTON.

CHANDELIER.

APPLICATION FILED JUNE 21, 1906.

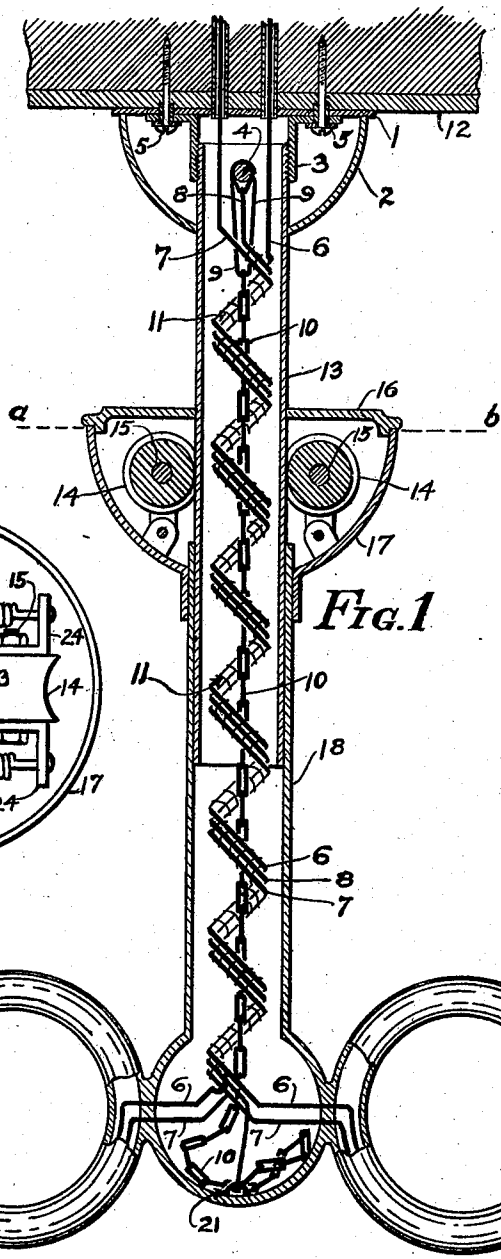


FIG. 1

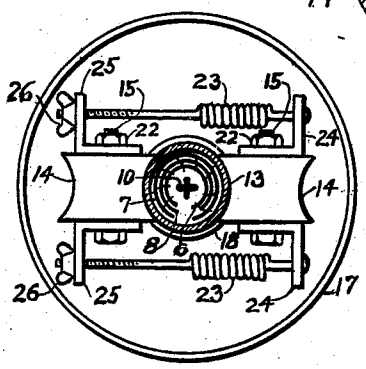


FIG. 2

Witnesses

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FREDERICK ANDREW BURTON, OF WAHPETON, NORTH DAKOTA, ASSIGNOR OF ONE-THIRD TO CHRISTINA E. KOUBA AND ONE-THIRD TO PETER H. STENERSON, BOTH OF WAHPETON, NORTH DAKOTA.

CHANDELIER.

No. 867,555. Specification of Letters Patent. Patented Oct. 1, 1907.

Application filed June 21, 1906. Serial No. 322,746.

To all whom it may concern:

Be it known that I, FREDERICK ANDREW BURTON, a citizen of the United States, residing at Wahpeton, in the county of Richland and State of North Dakota, have invented a certain new and useful Chandelier, of which the following is a specification.

The objects of my invention are to provide a vertically adjustable chandelier, the arm and light supporting member of which may be readily and easily moved to the various points of adjustment, where it will remain as long as desired.

A further object is to provide a means for keeping the electric wires in coil that they may not become entangled and thus always be ready for extension or contraction as the movable member of my chandelier is lowered or raised.

A further object is to provide in a device of the class stated, vertically adjustable chandeliers, means for doing away with all strain upon the electric wires incident to their expansion and contraction and thus eliminating all danger of a break from this movement.

A further object is to provide a device of this class of simple, durable and inexpensive construction, the parts of which can be easily adjusted and repaired whenever necessary.

My invention consists in certain details in the construction, arrangement and combination of the various parts of the device, whereby the objects contemplated are attained, as hereinafter more fully set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a vertical sectional view of my device, my chandelier, showing only portions of the arms and those portions in elevation. The whole device is equipped with electric wires. Fig. 2 is a cross view of my device upon the line *a*—*b* of Fig. 1.

Referring to the accompanying drawings I have used the reference numeral 18 to indicate the lower tube of my device. This tube as well as the various other parts of my device are made of brass, iron, wood or any material suitable for the particular part. Rigidly attached to this lower tube 18, near its lower end, are the two light bearing arms 19 and 20. It is understood, however, that my chandelier may have as many light bearing arms as may be desirable and practical. Tube 18 is closed at the lower end. At the top tube 18 is open and it is of such shape and size relative to tube 13 as to slidingly receive the lower end of this tube 13 to the full telescoping limit of the device. Near the upper end of the tube 18 and rigidly attached to its outer surface, is the encircling casing 17, the movable cover 16 of which fits slidingly around the tube 13. Within this casing 17 and pivotally attached thereto, but upon opposite sides of the tube 13, are two frictional rollers 14 and 14, which are designed to conform with more or less precision to the outer surface of the tube 13 against which they press for the purpose of maintaining the tube 18 and its attachments, otherwise referred to as the lower "member" of my device, at any desired point of adjustment. These two friction rollers revolve, one upon each of the axles 15 and 15. Mounted upon one axle 15 and adjoining its roller 14, but upon opposite sides thereof, are the two brackets 24 and 24. Mounted upon the other axle 15 and adjoining its roller 14, but upon opposite sides thereof, are the two brackets 25 and 25. Each axle is threaded at one end and upon this threaded end there fits the nut 22, a nut upon each axle. These nuts act as lock nuts and can be adjusted to produce any desired amount of friction lateral to the rollers 14 and 14.

Fitting, one into each pair of the projecting arms of the opposing brackets 24 and 25 and 24 and 25, are the two coil springs 23 and 23. Each of these springs 23 and 23 is governed by one of the thumb screws 26 and 26. It will be seen readily that by tightening or loosening these thumb screws, any desired friction may be secured and maintained between the rollers and the tube 13 and thus the lower member of my chandelier will be yieldingly maintained at any point of adjustment within the limit of movement of the telescoping parts. Also, it will as clearly appear that the lower member of my chandelier may be of any desired weight, for, the friction between the rollers 14 and 14 and the tube 13, assisted by the friction lateral to the said rollers, gives a wide range of resistance, which is readily controlled, with the further result that the foreign force necessary to move the lower or yielding member need be but small, and, need be no greater to move a heavy than a light lower member.

To provide against the possible falling of the lower member of my chandelier by reason of the breaking or other accidental release of the rollers, I have provided the chain 10, which is suspended inside the tube 13 upon the movable pin 4 and extends downward to about the center of the bottom of the tube 18, where it is securely attached at the point 21. This chain 10 is of sufficient length to permit of the lowering of the yielding member of my chandelier almost to the point of separation from tube 13, which, with its attachments, I otherwise designate as the "upper member" of my chandelier, but the length of this chain 10 will safely prevent such separation. Movable pin 4 passes through tube 13 near the center and preferably near the upper end of the said tube 13. By terming pin 4 "movable" I mean to say that it is so inserted in tube 13 as to be readily removed when desired, and not to imply that this pin continually shifts when in position.

Inside the tubes 13 and 18, attached by one end to pin 4 or to any other suitable point of the upper member, and attached by the other end at point 21 or at

any other point suitable of the lower member of my chandelier, is coil spring 8, which has expansion coextensive with the length of chain 10. Electric wires 6 and 7 follow and are bound to spring 8 by the binding cord 11. Thus it will be seen that the electric wires in the body of my chandelier are kept in proper suspension and all danger of their becoming twisted or entangled in the lowering and raising of my chandelier is obviated. Further, this suspension upon coil spring 8 does away with all chance of these electric wires being subjected to any undue strain such as might snap them, in the lowering or raising of my chandelier. Again, wires so suspended will not rub against adjacent surfaces, to the gradual wearing away of their insulation, nor will there be rubbing of the wires at the point or points where they enter the arms from the main tube. Further, this coil spring 8 may be made of light material, merely to hold the electric wires in proper suspension or it may be made of sufficient strength to both carry the electric wires 6 and 7 and to support the lower member of my chandelier. In this latter event the friction rollers are used merely as an adjunct to said spring 8, or to overcome its natural tendency to contract.

The upper end of tube 13 is so threaded as to screw into bracket 3 which is securely fastened to the ceiling 12, or other surface to which it is desired to attach my chandelier, by the two screws 5 and 5. My chandelier is thoroughly insulated from the ceiling 12 by the insulation 1.

It is understood that my chandelier may be attached to the ceiling or other surface in any manner desired; and that the frictional rollers 14 and 14 may be attached to any practical point of either the lower or upper member of my chandelier, without departing from the spirit of, or sacrificing any of the advantages of this invention.

Having thus described my invention, what I claim and desire to secure by Letters Patent of the United States, therefore is—

1. In a device of the class described, an upper member, a lower member capable of vertical adjustment, frictional rollers connected with one of the members and in contact with the other, means for increasing or diminishing the frictional capacity of the rollers simultaneously, electric wires within said members, a removable pin passing horizontally through the upper member and a coil spring depending from the pin, and means for securing electric wires to the convolutions of said spring.

2. In a device of the class described, an upper member, a lower member capable of vertical adjustment, frictional rollers connected with one of the members and in contact with the other, tension devices connecting the frictional rollers, and adjustable means for regulating the tension devices for increasing or diminishing the retaining capacity of the rollers, electric wires within said members, a pin passing horizontally through the upper member said pin being removable, a coil spring, depending from the pin, and means for securing said wires to the convolutions of said spring.

3. In a device of the class described, an upper member, a lower member capable of vertical adjustment, frictional rollers connected with one of the members and in contact with the other, means for increasing or diminishing the friction of the rollers simultaneously, electric wires within said members, a pin located in the upper member, a coil spring for carrying the electric wires, means for supporting the pin, and means for securing the wires to said spring.

FREDERICK ANDREW BURTON.

Witnesses:
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