

## Movable Bulb Holder

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### Abstract

An electric bulb is an electric light with a wire filament heated to such a high temperature that it glows with visible light. The electric bulb plays a great role in our day to day life. Servicing and maintenance is also important for their effective function. A movable bulb holder is a device that provides support and electrical connections to electric bulb and also provides convenient and safe replacement of an electric bulb. These movable holders are operated automatically and in a hassle free way by the means of a switch connected on the wall. The movable holder is provided with a motor, clamps, pulley and a rope for providing effective servicing of the electric bulb [1], [2].

**Key words:** bulb, movable, holder, pulley

### Introduction

Till date, the movable holders are present in chandelier systems, pendants lights and are operated manually. They are installed at great heights in places like showrooms, petrol pumps, and halls to provide light to the surrounding. At the time of servicing or replacement of the bulb, it becomes very hectic as ladders; trolleys are required for the same. This may cause any kind of injury to the person changing the bulb. Thus to reduce such kind of injuries a movable bulb holder is required that the user can displace it from its initial position and do the servicing of the same.

### Working

The movable bulb holder consists of a rope and a pulley. The bulb is coupled to the holder for providing attachment and detachment of the bulb. The holder is connected to a rope that is rolled over a pulley for providing the upward and downward movement to the holder at the time of replacement of the bulb. The pulley is connected to the hook on the wall for moving the holder either upward or downward and also providing the connection and disconnection of the holder from the bulb at the time of replacement of the electric bulb [3], [4].

When the bulb needs servicing, (i) the user pulls the pulley associated with the hook on the wall to move the holder in downward direction till the bulb holder reaches to the desired point, (ii) after servicing or replacing the bulb attached to the holder, again the user push back the pulley, holding it till a click sound is heard, (iii) the click sound indicates that the holder is connected to the bulb, (iv) if the bulb does not need servicing then the holder can be used in a normal way.



## Result

The movable bulb holder provides an effortless servicing of the luminance device such as bulb, compact florescent lamp, and light emitting diode thereby saving both time and labour. Also the movable bulb holder prevents the user from any kind of accidents at the time of servicing as it will limit the use of trolleys, ladders etc.

## Conclusion

These portable holders do the task of servicing of the luminance device without seeking help of anyone else and can save time and labor both.

## References

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