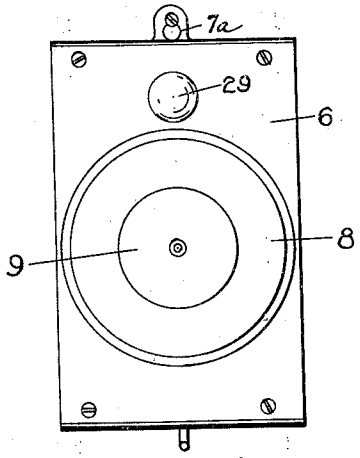
Oct. 18, 1938. J. E. BROOKS 2,133,420

AUXILIARY LIGHTING APPARATUS

Filed Feb. 11, 1937

FIG-1



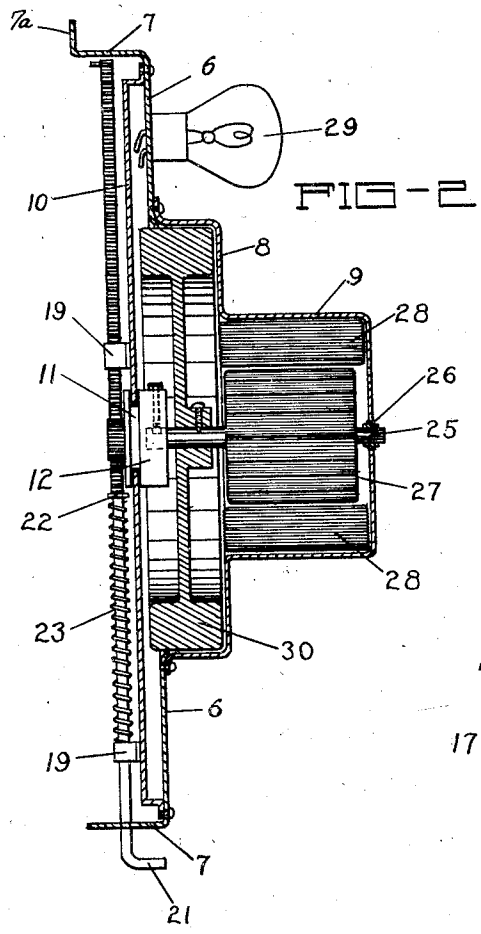


FIG-2

FIG-3

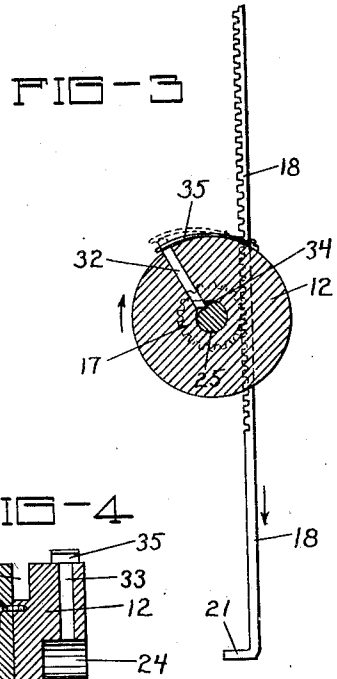
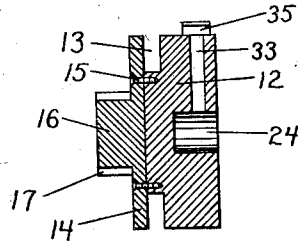


FIG-4



Inventor

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By his Attorney

Patented Oct. 18, 1938

2,133,420

UNITED STATES PATENT OFFICE

2,133,420

AUXILIARY LIGHTING APPARATUS

John E. Brooks, Rock Island, Ill.

Application February 11, 1937, Serial No. 125,259

3 Claims. (Cl. 240—10.5)

My invention has reference to an auxiliary lighting apparatus, and it is designed more specially for use in cottages, farm houses, garages, and other places which are dependent upon oil lamps or similar lighting devices for illuminating purposes. As is well known, in many small communities, on farms, in summer cottages, and other places where electricity is not available, kerosene lamps are made use of. On account of the temporary absence of the occupants these places are often in darkness for several hours, and upon their return it is usually necessary to resort to the use of several matches in order to locate and re-light the lamps. This operation is attended with more or less hazard, and danger of setting the building or its contents on fire.

The chief purpose of the present invention is to provide an electrical apparatus, including a lighting element by means of which one or more rooms can be flooded with light, and by a simple hand operation.

Another object of the invention is to store power for a limited amount of time so that the light will be maintained until the regular lighting means can be located and placed in operation. This is done by means of a momentum apparatus, which is rendered active by a simple operation, and which continues effective for the desired length of time, whereupon it ceases to operate, and the light ceases to burn.

The invention is of simple construction, can be readily assembled, is easy to operate, and can be produced at a small amount of cost. The preferred form of the apparatus is illustrated in the drawing and set forth in the specification, it being understood that variations in the mechanisms thereof, and in their arrangement and operation, can be made without departing from the spirit of the invention.

In the drawing,—

Fig. 1 shows the device in front elevation.

Fig. 2 is a vertical medial section thereof, with some of the parts shown complete.

Fig. 3 is a section through the bearing 12, enlarged.

Fig. 4 shows said bearing, detached.

The reference number 6 indicates a base plate, provided with flanges 7, and an ear provided with a key-hole slot 7a, by means of which the plate can be supported on a screw in a door casing or other fixture. The plate 6 is provided with a central opening to the edges of which is secured an annular casing 8, projected outwardly into a housing 9.

Fixed to the inside of the casing 7 is a frame 10, having a central opening at 11, in which is rotatably mounted a bearing 12, by means of an annular channel 13 in said bearing. For convenience in assembling, the bearing is formed with a separate plate 14, attached thereto by screws 15. The plate 14 has a boss 16 on its outer face, on which are formed gear teeth 17, for engagement with similar teeth on a rack-bar 18, slidably supported in guides 19 fixed to the frame. At the lower end of said bar, at a point below the casing is a handle 21, by means of which the bar can be drawn downwardly, causing a rotation of the gear 16 and bearing 12. Interposed between the lower guide 19 and a pin 22 in the bar 18 is an extensile coiled spring 23, the force of which operates to hold the bar 18 normally in elevated position, and to return it to such position after having been operated.

In the outer side of the bearing 12 is a bore 24, in which is rotatably supported one end of a shaft 25, the other end of which is journaled in a bearing 26 in the housing 9. Fixed on the shaft 25 is an armature 27, surrounded by field coils 28, connected by suitable cable with a light bulb 29, supported in the upper part of the plate 6. The operation of the armature generates sufficient electrical current to light the bulb 29, which continues lighted as long as the armature is in operation. A wheel 30 is also secured to the shaft 25, within the casing 8, the rim of which wheel is weighted, so as to give it the effect of a flywheel, and impart momentum to the shaft 25 and armature 27 thereon.

Upon the bearing 12 being rotated, the movement thereof is imparted to the shafts 25 by means of a pin 32, slidable in an opening 33 in the bearing, and engaging at its inner end with a notch 34 in the wall of the shaft. The pin 32 is held yieldably inwardly by means of a spring 35, fixed at one end to the bearing 12. This results in a slide connection between the bearing and shaft, so that when the bar 18 is being actuated, and bearing 12 driven thereby, the movement of the bearing will be communicated to the shaft. In the return movement of the bearing, however, it rotates freely on the shaft, the beveled end of the pin 32 merely sliding over the notch in the shaft.

The device is designed to be supported at the side of an entrance to a room or hall, and upon the door being opened the party entering pulls down on the bar 18, actuating the armature, and turning on the light. The momentum of the armature and of the wheel 30 added thereto, will cause the light to remain lit for a short period

of time, and for a sufficient length of time for the operator to make other lighting arrangements. If desired, the bar **18** can be given several movements, storing additional force in the wheel **30**, and giving additional life to the lamp.

It will be obvious that other mechanical devices can be substituted for the one shown for rotating the bearing **12**, such as a drum connection and cord wound thereon, and others that will suggest themselves.

The invention is ready for use at all times, cannot become misplaced like a flash-light, or inoperative on account of failure of cells. By removing the device from its supporting screw the operating parts can be readily gotten at for repairs, or for oiling the parts. By the use of additional supporting screws the device can be transferred from one point to another, and can be used for a short time as a portable light, in or about a house.

If it is desired to lower the speed of the armature, this can be accomplished by means of an additional armature shaft and reduction gears between such shaft and the shaft **25**.

What I claim and desire to secure by Letters Patent is:—

1. An auxiliary lighting apparatus, comprising a support, a casing mounted on said support, a bearing rotatably mounted in said support, means for giving an initial movement to said bearing in a given direction, a shaft operatively connected with said bearing, and rotatable thereby in said given direction, with a free reverse movement, an electric current generating apparatus including a part operatively connected with said shaft, and a lighting device in circuit with said generating apparatus.

2. An auxiliary lighting device, comprising a support, a casing mounted on said support, a shaft rotatably mounted in said casing, an electric current producing mechanism in said casing, including parts operatively connected with said shaft, a bearing forming a support for one end of said shaft and rotatable independently thereof, means for rotating said bearing in a given direction for a limited amount of time, and means for imparting said rotation to said shaft to give an initial movement thereto, said shaft being independently rotatable at the end of said movement.

3. An auxiliary lighting device, comprising a support, adapted for attachment to a fixture, a casing on said support, a shaft rotatably mounted in said casing, an electric current producing mechanism in said casing, including parts operatively connected with said shaft, an electric lamp in circuit with said current producing mechanism, a bearing rotatably mounted in said support, forming a support for one end of said shaft, means for imparting the rotation of said bearing to said shaft in one direction, with free rotary movement in a reverse movement, a rack and pinion device connected with said bearing, adapted to give rotation thereto for a limited time, and a momentum wheel connected with said shaft.

JOHN E. BROOKS.