# United States Patent

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[54] **ILLUMINATED DISK CLOCK FACE**
**1 Claim, 4 Drawing Figs.**


[52] **U.S. Cl.** ..... **58/50,** 240/6.43
[51] **Int. Cl.** ..... **G04b 19/30**
[50] **Field of Search** ..... 58/23, 50; 240/2.1, 6.43



[56] **References Cited**
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**ABSTRACT:** A clock face having a multiple of clear windows which will indicate through the use of an opaque disc having an arcuately clear window which will allow view to the face in order to indicate the hour. This device also includes an opaque disc to indicate minutes of the hour, the disc indicating minutes having a clear triangular window which will allow the passage of light from the interior of the clock to go through an annular window in order to indicate minutes of the hour simultaneously as the hour is indicated by the same light.

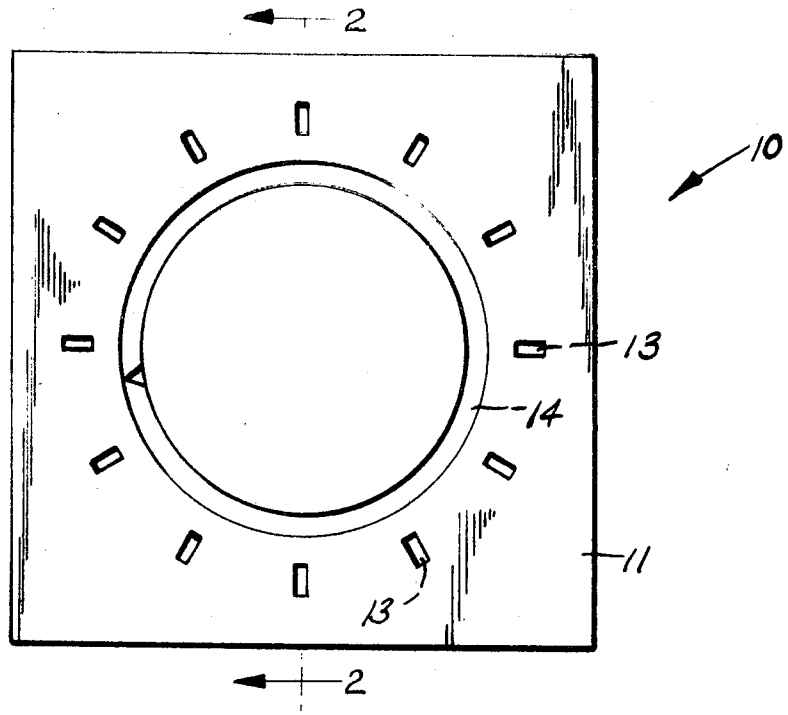



Fig.1

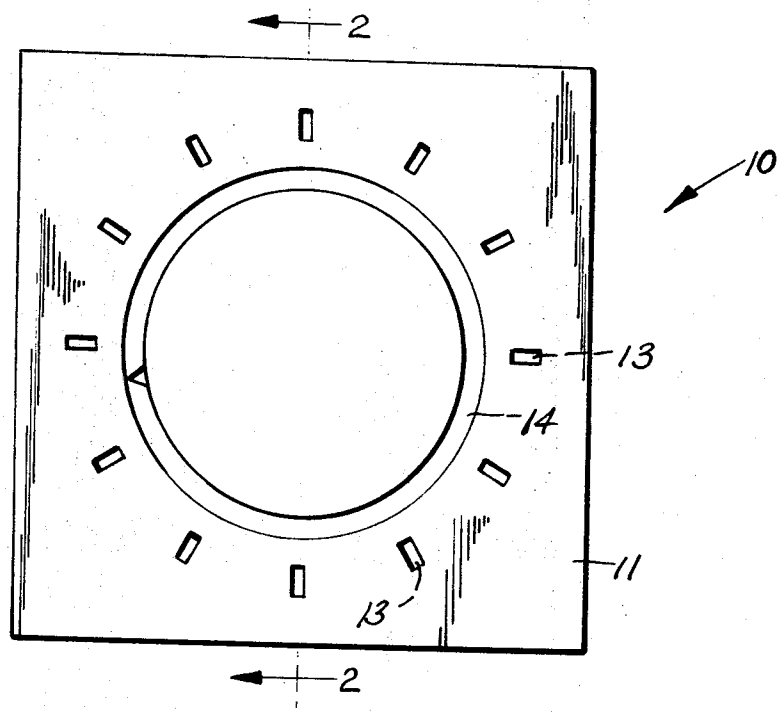
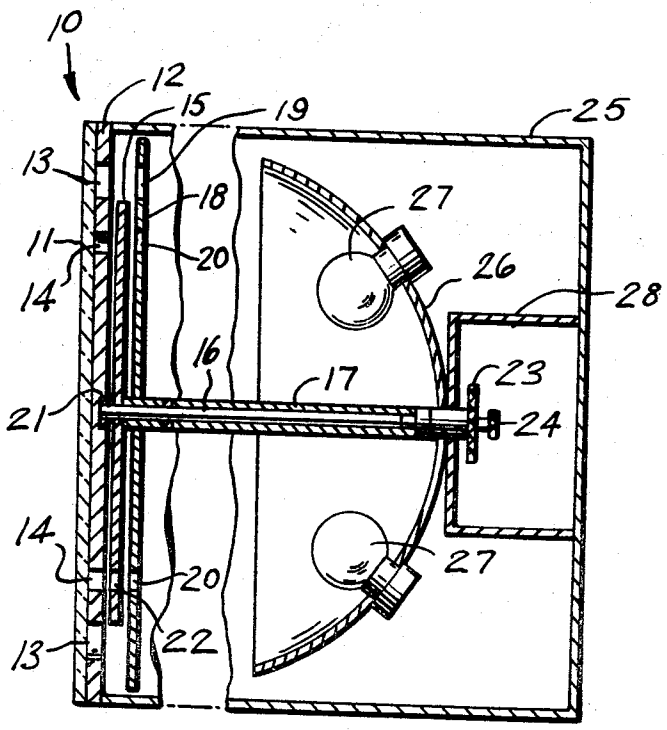



Fig.2




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Fig.3

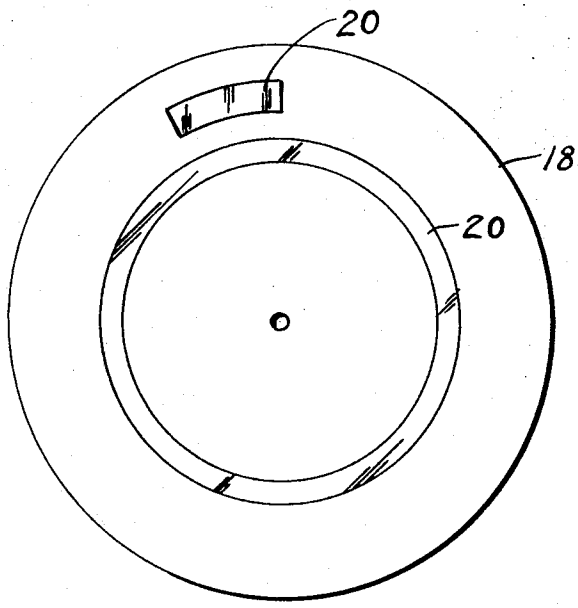
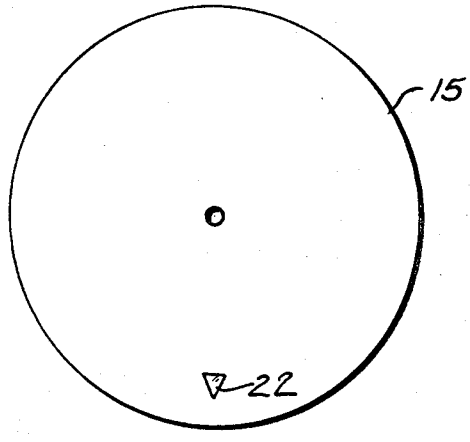



Fig.4




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## ILLUMINATED DISK CLOCK FACE

This invention relates to illuminated clock faces and more particularly to an illuminated disc clock face.

It is therefore the main purpose of this invention to provide an illuminated clock face which may be easily seen in the dark without having a disturbing glare of light as is found with illuminated clocks of the prior art.

Another object of this invention is to provide an illuminated disc clock face which will have a pair of opaque discs one of which will have an arcuate and clear windows spaced away from the outside of an annular clear window, the arcuately shaped clear window allowing the passage of light to enter into one of a plurality of equally spaced apart clear windows of the clock face which will indicate the hour and the other of the discs being also opaque is provided with a triangular configurated clear window which will allow the passage of light which will be visible through the annular clear window making up the face of the clock, thus indicating the minutes of the hour simultaneously.

A further object of this invention is to provide an illuminated disc clock face which will have shaft means receivable one within the other within the body of the clock in order to rotate the discs through means of a conventional clock.

Other objects of this invention are to provide an illuminated disc clock face which is simple in design, inexpensive to manufacture, rugged in construction, easy to use and efficient in operation.

These and other objects will become readily apparent upon a study of the following specification together with a study of the accompanying drawing wherein:

FIG. 1 is a front view of the present invention;

FIG. 2 is a cross-sectional view taken along the lines 2–2 of FIG. 1;

FIG. 3 is a plan view of the hour disc shown removed from the invention; and

FIG. 4 is a plan view of the minute disc shown removed from the invention.

According to this invention, an illuminated disc clock face **10** is provided with a sheet of translucent plastic **11** which is secured to a similar shaped opaque sheet **12** by suitable means. The opaque sheet **12** is provided with a plurality of equally spaced apart transparent windows **13** in a radial arrangement for the purpose which hereinafter will be described. The opaque sheet **12** is also provided with an annular shaped window **14** for a reason which hereinafter will be described. A circular minute indicating disc **15** spaced apart from sheet **12** is secured to the hour indicating disc **13**. The hour indicating disc **18** is constructed of opaque material and is provided with an arcuately shaped window **19** which aligns with transparent windows **13** in order to allow the light to indicate the hour. The hour indicating disc is also provided with a transparent and annular window **20** Shaft **16** is supported within bearing **21** secured within sheet **12**. The minute indicating disc **15** adjacent to the hour indicating disc **18** is provided with a triangular configurated clear window **22** which aligns with annular window **20** in order to indicate minutes.

It is to be noted that in regard to the clock mechanism, the elements **23** and **24** are not means of setting but are the driven gears which the shafts **16** and **17** are attached. Setting of the discs will be the same as for any clock mechanism, and at the rear of the mechanism itself. It is understood that the present clock may use any conventional clock mechanism therewithin, well known in the art. Within the clock housing **25** is positioned a reflector **26** in which is secured electric bulbs **27**. Also within clock housing **25** is secured a housing **28** by suitable means which contains a conventional electric clock mechanism (not shown).

In use, the electric clock mechanism (not shown) within housing **28** will simultaneously drive the shafts **16** and **17**, thus rotating discs **15** and **18** at their proper speeds which will show light through the various windows to indicate the hour and the minute.

It will be noted that vents and baffles may be used to lengthen the bulb and provide for cooling, however, the baffles when used will be primarily for containing or confining stray light. The baffles and vents have been eliminated in the drawings in order to obtain maximum clarity.

It will be noted further that discs **15** and **18** should be of translucent plastic material, opaque areas being painted and the various windows may be colored with dye if different hour and minute colors are desired.

What I now claim is:

**1**. An illuminated clock having an housing and an electric clock mechanism mounted within said housing comprising a shaded translucent plastic disc, an opaque disc having a clear annular shaped window and a plurality of diametrically spaced windows and being carried by said translucent disc, an hour indicating disc, a minute indicating disc, a pair of coaxially mounted shaft members mounted within said housing and drivingly connected to said minute indicating disc and said hour indicating disc, respectively, a reflector mounted within said housing and carrying a pair of lamps, wherein said minute indicating disc has a triangular window and said hour indicating disc has a short arcuate window and upon movement of the said hour indicating disc and said minute indicating disc, their respective windows coincide with said annular window and said diametrically spaced windows to transmit light from said lamp thereby giving an illuminated time indication.