Feb. 10, 1931. E. McLEARY ET AL 1,792,435

CLOCK

Filed April 13, 1929 2 Sheets-Sheet 1

Fig. 1.

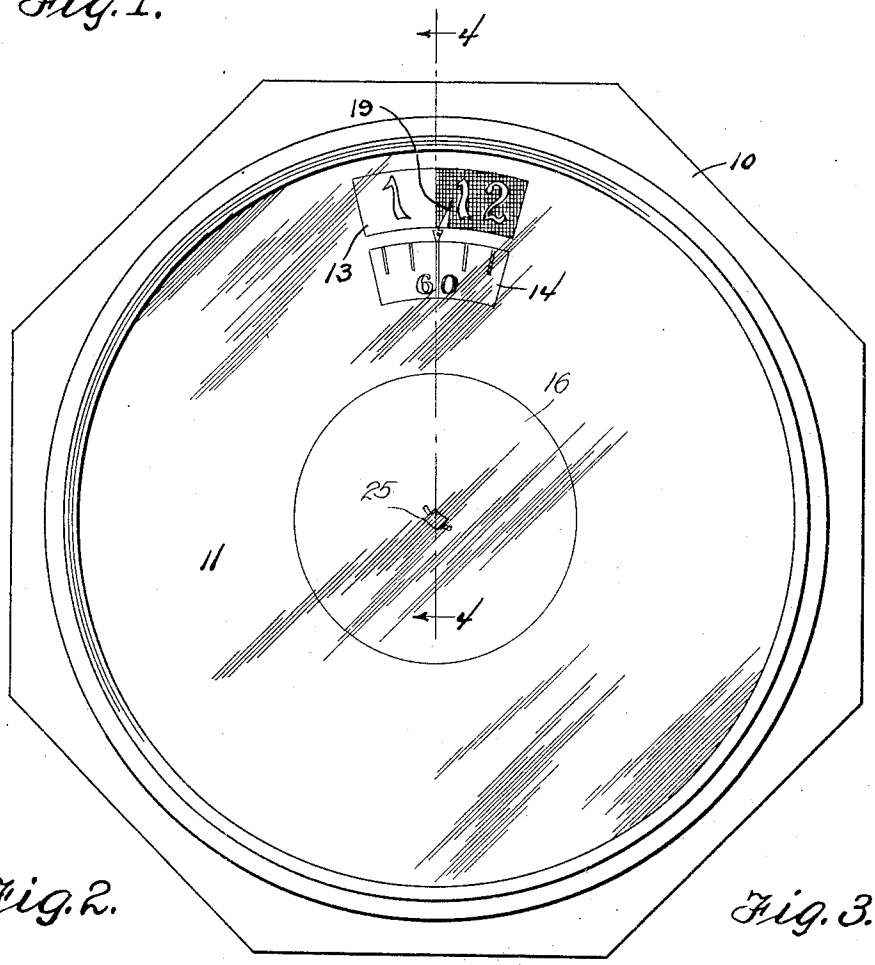



Fig. 2.

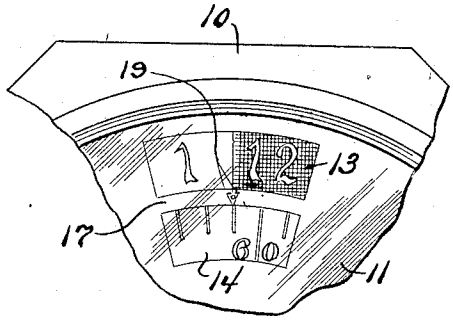
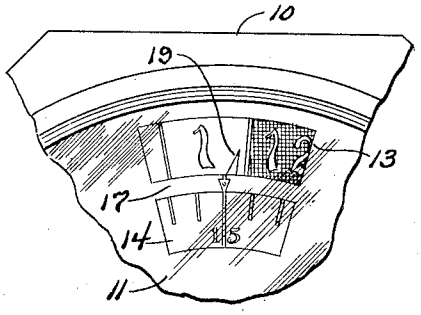



Fig. 3.

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Feb. 10, 1931. E. McLEARY ET AL 1,792,435

CLOCK

Filed April 13, 1929 2 Sheets-Sheet 2

Fig. 4.

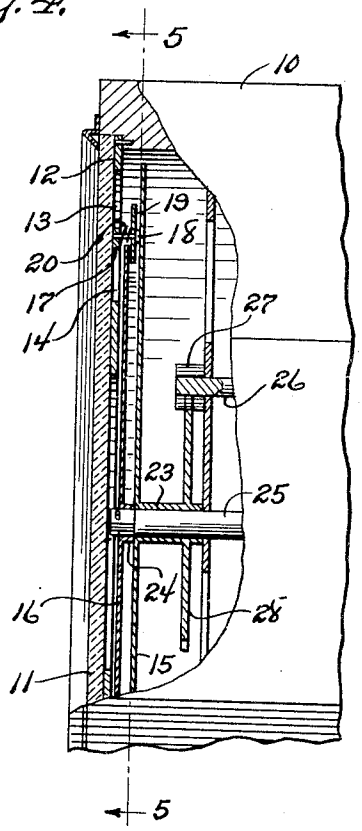



Fig. 5.

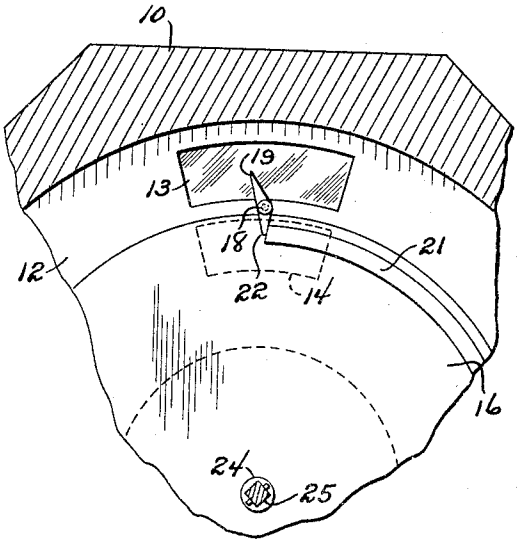



Fig. 7.

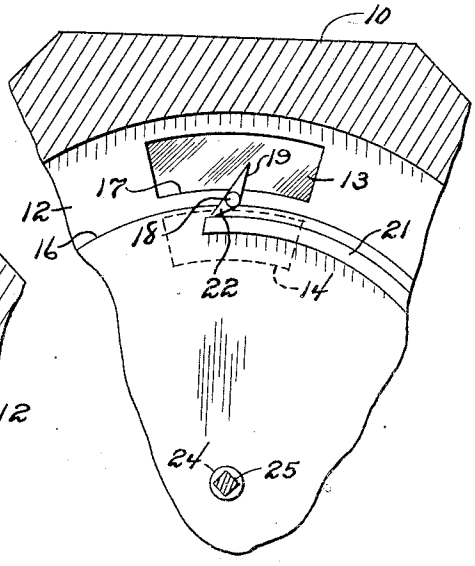
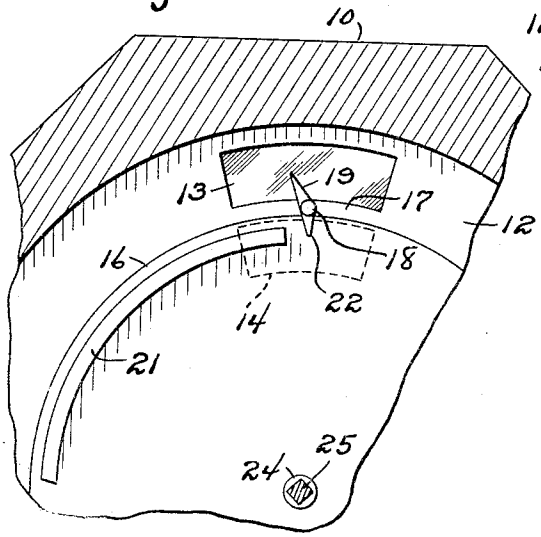



Fig. 6.

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Patented Feb. 10, 1931 1,792,435

# UNITED STATES PATENT OFFICE

EDDIE McLEARY AND DICK LAMB, OF LANDER, WYOMING

## CLOCK

Application filed April 13, 1929. Serial No. 354,939.

This invention relates to new and useful improvements in clocks and other time pieces.

An object of the invention comprehends the provision of dials to indicate the time by the hour and the minutes thereafter.

Another object of the invention contemplates an indicator whereby the particular hour may be designated between adjacent hours.

An additional object of the invention embodies a trip for the minute hand operating the indicator.

More specifically stated the mechanism is shielded by a cover plate having openings to expose only the immediate hour, minutes and the indicator.

With the above and other objects in view, the invention further consists of the following novel features and details of construction, to be hereinafter more fully described, illustrated in the accompanying drawings and pointed out in the appended claims.

In the drawings:—

Figure 1 is a front elevation of our improved type of time piece.

Figure 2 is fragmentary elevation of the clock showing the indicator pointing toward the hour at one minute thereafter whereby the correct time may be readily ascertained.

Figure 3 is a view similar to Figure 2 at fifteen minutes after the hour designated with the pointer hand reversed and still indicating the aforementioned hour.

Figure 4 is a fragmentary sectional view taken on line 4—4 of Figure 1.

Figure 5 is a sectional view taken on line 5—5 of Figure 4.

Figures 6 and 7 are fragmentary rear elevations taken through the mechanism and illustrative of the operating mechanism for the pointer hand for shifting same to occupy the positions shown in Figures 2 and 3 of the drawings.

Referring to the drawings in detail, wherein like characters of reference denote corresponding parts, the reference character 10 indicates generally the housing of a time piece having a lens 11 extended over the face of a cover plate 12 having openings 13 and 14 therein of arcuate shape and arranged concentric with relation to the center of the lens 11 and disposed in spaced superimposed relation to indicate the time by the hour and minutes exhibited therethrough.

The time mechanism comprises hour and minute disk members 15 and 16 respectively calibrated or otherwise provided with proper legends, upon the outer sides thereof and adjacent the peripheral edges and exhibited through the adjacent sight openings 13 and 14 whereby the time may be given by the hour and minutes following. The solid portion 17 in the cover plate 12 between the sight openings 13 and 14 respectively carries a pivot pin 18 upon which is rockingly mounted a pointer hand 19. A helical spring 20, carried by and encircling the pivot pin 18 is adapted for fixed engagement at one end with the pin 18 and sprung at its opposite end against the side of the pointer hand 19 to yieldingly retain the latter against the adjacent end of the cam 21.

A cam portion, such as indicated at 21, of arcuate-shape and in length equivalent to that of a quarter of an hour by the space taken upon the rear side of the minute disk 16, is adapted for contacting engagement with a trigger portion 22 depending from the pointer hand 19 when the time is at the hour or fifteen minutes thereafter.

It is to be noted that the mounting of the pointer hand and trigger portion is such that same will be readily retracted to occupy the Figure 5 position, by the spring 20, upon the occasion of the cam portion 21 being shifted an appreciable distance past the quarter hour.

The disk members 15 and 16 are provided with bearing sleeves 23 and 24 respectively rearwardly and horizontally disposed centrally thereof for accommodation, in the manner shown in Figure 4 of the drawings, upon a shaft 25. The minute disk 16 is fixed upon the shaft 25 through the instrumentality of the sleeve member 24 and to operate across the face of the disk member 15. An operating shaft 26 within the clock 10 carries a relatively small spur gear 27 meshingly engaged tangentially thereof with the toothed periphery of a relatively large gear

28 carried by the sleeve 23. Inasmuch as there are sixty minutes to the hour and that the minute disk 16 must travel twelve times as fast as the hour disk or dial 15, the gearing arrangement between the shaft 26 and sleeve 23 will rotate the hour disk or dial 15 one-twelfth as fast as the minute disk 16.

The invention is susceptible of various changes in its form, proportions and minor details of construction, and the right is herein reserved to make such changes as properly fall within the scope of the appended claims.

Having thus described the invention, what is claimed is:—

1. A time indicating device comprising large and small minute and hour legend bearing disk members arranged in superimposed laminated formation to expose the legends thereon arranged adjacent the peripheral edges thereof, a cover plate having sight openings through which adjacent and corresponding legends upon the disk members may be exposed to give the time in hours and minutes thereafter, a pointer hand pivotally mounted for rocking movement upon the cover plate adjacent the sight openings, a trigger carried by and depending from the pointer hand, and a cam mounted upon the minute disk member and engageable with said trigger to shift the pointer hand across the faces of the hour legends as the hours change.

2. A time indicating device comprising large and small minute and hour legend bearing disk members arranged in superimposed laminated formation to expose the legends thereon arranged adjacent the peripheral edges thereof, a cover plate having sight openings through which adjacent and corresponding legends upon the disk members may be exposed to give the time in hours and minutes thereafter, a pointer hand pivotally mounted for rocking movement upon the cover plate between the sight openings, a trigger carried by and depending from the pointer hand, a cam mounted upon the minute disk member and engageable with said trigger to shift the pointer hand across the faces of the hour legends as the hours change, and a spring element carried upon the mounting for the pointer hand to yieldingly nduce the trigger for contacting engagement with the cam.

In testimony whereof we affix our signatures.

EDDIE McLEARY.
DICK LAMB.