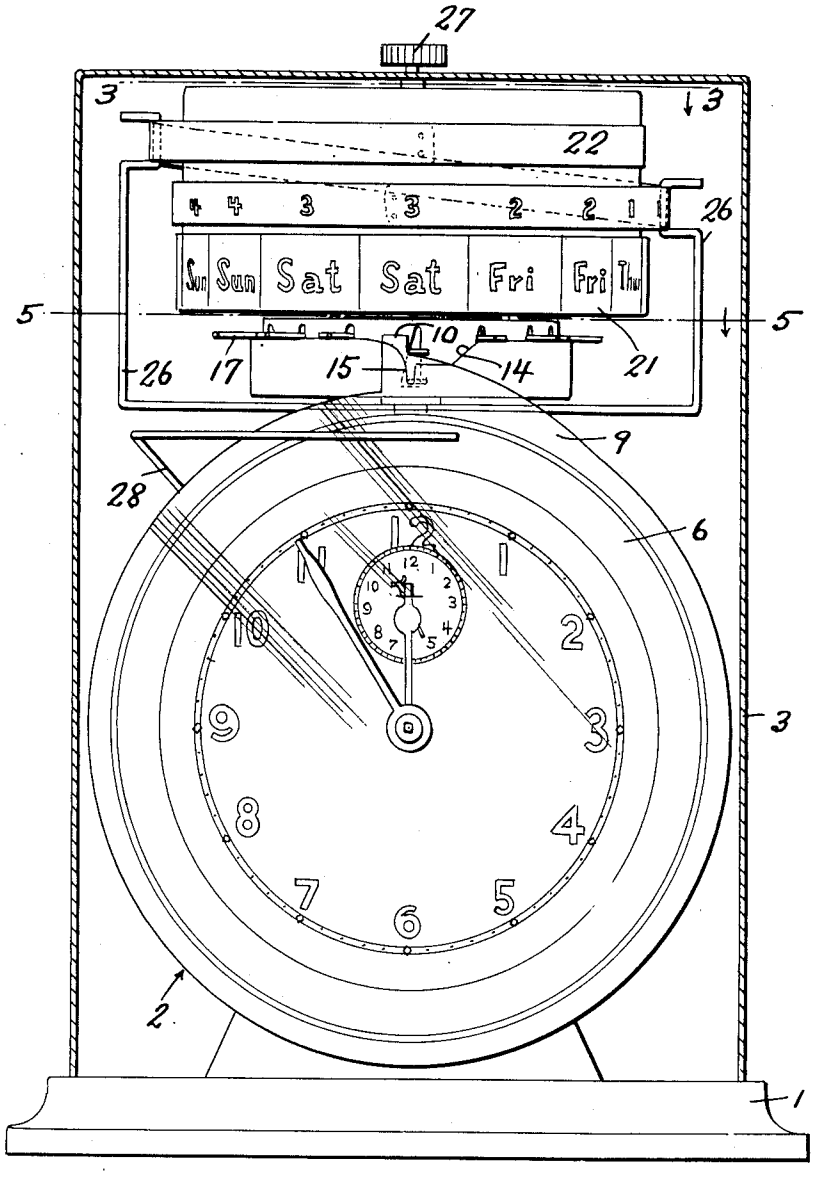
May 15, 1934. M. E. DEVAN 1,959,077

CALENDAR CLOCK

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Fig. 1



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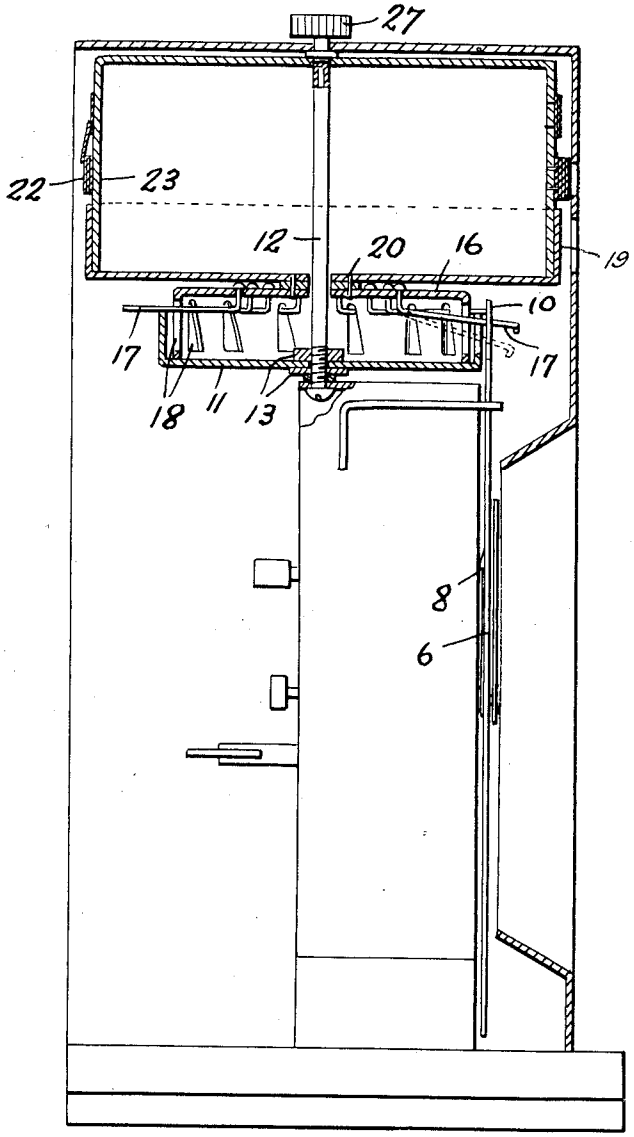
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CALENDAR CLOCK

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Fig. 2.



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CALENDAR CLOCK

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Fig. 3.

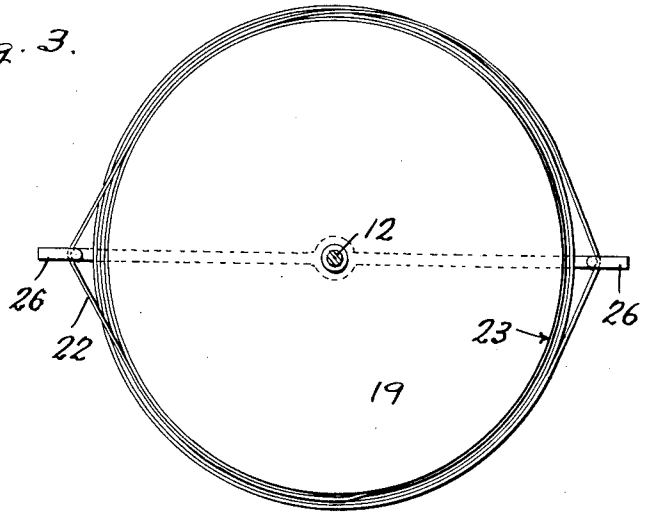
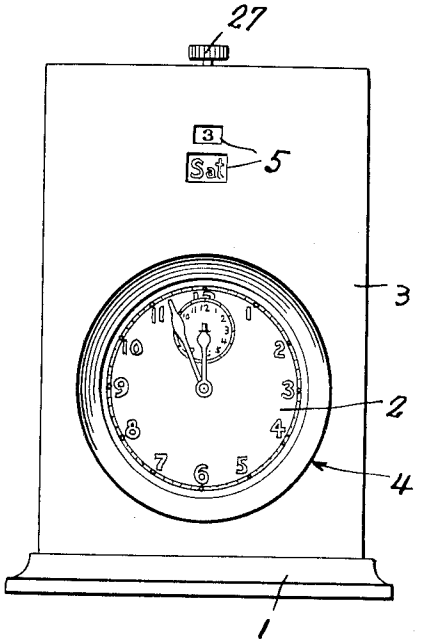


Fig. 4.



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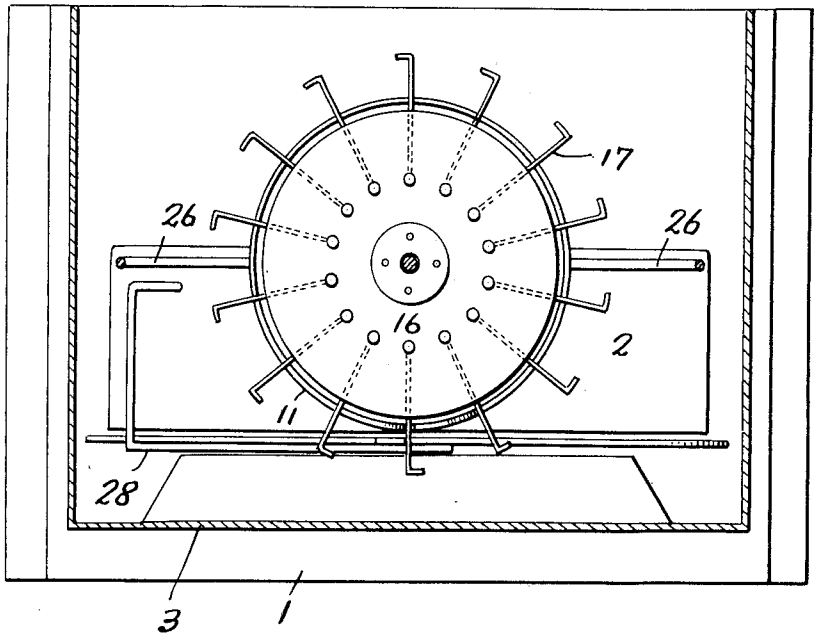
Attorney

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CALENDAR CLOCK

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Fig. 5.



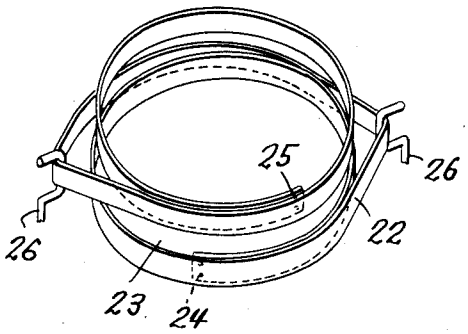


Fig. 6.

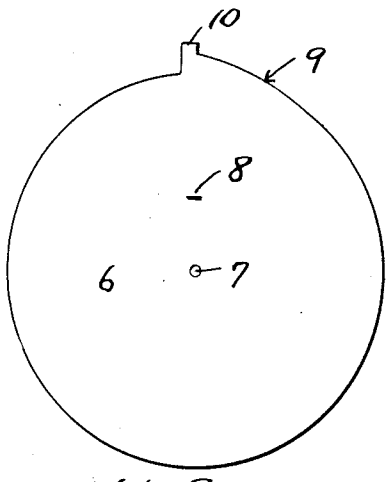


Fig. 7.

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UNITED STATES PATENT OFFICE

1,959,077

CALENDAR CLOCK

Michael Emmett Devan, Midwest, Wyo.

Application October 9, 1933, Serial No. 692,879

2 Claims. (Cl. 58—4)

This invention relates to a calendar clock, the general object of the invention being to provide a casing containing a clock and means actuated from the clock for indicating the days of the week and the days of the month, whereby one glancing at the device, can ascertain the time, the day of the week and the day of the month.

This invention also consists in certain other features of construction and in the combination and arrangement of the several parts, to be hereinafter fully described, illustrated in the accompanying drawings and specifically pointed out in the appended claims.

In describing the invention in detail, reference will be had to the accompanying drawings wherein like characters denote like or corresponding parts throughout the several views, and in which:—

Figure 1 is a front view with the casing shown in section.

Figure 2 is a side view, with parts in section.

Figure 3 is a section on line 3—3 of Figure 1.

Figure 4 is a front view.

Figure 5 is a section on line 5—5 of Figure 1.

Figure 6 is a diagrammatic view of the drum and the tape which carries the days of the month.

Figure 7 is a view of the cam disk.

As shown in these views, the device comprises a base 1 on which the clock 2 is supported and a casing 3 for enclosing the parts and which has a circular window 4 therein through which the face of the clock appears and said front of the casing is also provided with the small windows 5 in the upper part thereof. A transparent disk 6 of celluloid or the like has a central hole 7 therein for receiving the minute hand arbor, the disk being placed between the hour hand and the minute hand; and the disk is formed with a slit 8 for receiving the end of the hour hand so that the disk will rotate with the hour hand. The disk is formed with a cam part 9, the high part of which terminates in a projection 10 which is in alignment with the slit 8 and the hole 7 so that when the hour hand reaches "12" on the dial, this projection will be uppermost.

A stationary cup-shaped member 11 is fastened to the upper part of the clock by a long bolt 12 and the nuts 13 and this cup-shaped member has a recess 14 in its front part, the rear end of which is rounded, as shown in Figure 1, and the bottom of which is formed with a notch 15. An inverted cup-shaped member 16 is rotatably supported in the cup-shaped member 11 and carries a plurality of pins 17, each pin passing through an upper part of the member 16, with its head resting on said part and then the pin is bent at right angles to extend through the substantially triangular-shaped openings 18 formed in the side walls of the member 16. These pins normally rest on the upper edge of the cup-shaped member 11, but when they reach the recess 14, they will move downwardly over the rounded end thereof and drop into the notch 15, and as will be seen, the wide ends of the openings 18 are lowermost, so that the pins have a certain amount of movement in said openings when they are in the lower parts thereof.

A large cup-shaped member 19 is fastened to the member 16, as shown at 20, so that this member 19 will rotate with the member 16 and the outer circumference of the flange of the member 19 is divided into fourteen spaces, as shown at 21, each pair of adjacent spaces carrying indicia indicating the same week days, as will be seen from Figure 1. The names of the days of the week will appear in succession at the lower window 5, as shown in Figure 4.

Thus it will be seen that as the hour hand nears the numeral "12" on the dial of the clock, the cam 9 will engage a pin located in the notch 15 so that the pin will be raised into the upper part of its opening 18 in the member 16 and then when the projection 10 engages the pin, the pin is moved with the disk and its projection 10 until the pin reaches the unrecessed part of the flange of the cup-shaped member 11, which will support the pin in raised position and just at this time the projection will be freed from the pin so that the pin and the member 16 will come to rest while the cam disk continues to revolve with the hour hand. During this movement of the parts, the following pin will drop into the notch 15 so that it will be engaged when the cam and projection again are brought uppermost by the revolution of the hour hand. By making each opening 18 large at its bottom, the member 16 can have a certain amount of movement after the pin drops into the notch 15 without being stopped by said pin in said notch. This will insure the first pin moving onto the unrecessed part of the flange of the member 11 before it is disengaged by the projection 10 of the disk 6.

It will, of course, be understood that as the member 16 is so moved by the engagement of the projection 10 with a pin, another space 21 will be moved into view at the lower window 5 and by providing the fourteen spaces with the days of the week arranged in pairs therein, the two revolutions of the hour hand will move the member 16

a distance of two spaces so that the change from one day of the week to another will be made at midnight.

A ribbon or tape 22 has one end fastened to the drum 23, the lower part of which is inserted in the member 19 and in such a manner that the drum will rotate with the member 19, but can be rotated manually in said member 19. Said end of the ribbon or tape is connected to the lower part of the drum, as shown at 24, and its other end is connected to the upper part of the drum, as shown at 25 in Figure 6, and portions of the ribbon or tape pass over the hook-shaped upper ends of the guide rods 26 which are so arranged that as the drum rotates, the tape is unwound from the lower part and wound on the upper part, as shown in Figure 6. This tape carries the numerals indicating the days of the month and as the tape is unwound by the rotary movement of the drum, the numerals will appear in succession in the upper window 5 and, of course, the parts are so arranged and constructed that said numerals will appear in their proper order at the window. This tape also has the numerals arranged in pairs, as shown in Figure 1, so that two revolutions of the hour hand of the clock will bring the proper numeral at the window.

A knurled wheel 27 has its shank rotatably arranged in the top of the casing, with a reduced part entering a socket in the bolt 12, with the shank connected to the drum, so that by turning the wheel 27, the drum can be turned by hand to adjust or re-set the numerals carried by the tape at the beginning of the month, but as the member 19 is held against movement by one of the pins in the notch 15, this member 19 will not be turned. A guide 28 is provided for the disk 6.

Thus it will be seen that the clock will operate the calendar so as to bring the proper day of the week and the proper day of the month at the windows 5, the change being made once for every two revolutions of the hour hand and, of course, the parts should be adjusted so that the change is made at midnight. It will, of course, be understood that the parts are moved at noon, but this movement simply brings the same day of the week and the same day of the month of a pair of the week days and month days into view at the windows 5.

It is thought from the foregoing description that the advantages and novel features of the invention will be readily apparent.

It is to be understood that changes may be made in the construction and in the combination and arrangement of the several parts, provided that such changes fall within the scope of the appended claims.

What is claimed is:—

1. A device of the class described comprising a clock, a cam disk rotated by the hour hand of the clock, the cam part of the disk having a projection at its high end, a stationary cupshaped member having a recess in its front part and a notch at the forward end of the recess, a cup-shaped member rotatably arranged in the first member and having openings in its sides, pins carried by the second member extending through the openings and raised by the cam and then moved forwardly by the projection, and a member connected with the second cup-shaped member carrying data indicating the days of the week.

2. A device of the class described comprising a clock, a cam disk rotated by the hour hand of the clock, the cam part of the disk having a projection at its high end, a stationary cup-shaped member having a recess in its front part and a notch at the forward end of the recess, a cup-shaped member rotatably arranged in the first member and having openings in its sides, pins carried by the second member extending through the openings and raised by the cam and then moved forwardly by the projection, a member connected with the second cup-shaped member carrying data indicating the days of the week, a drum rotated by the second cup-shaped member, a ribbon having one end connected to the lower part of the drum and its other end connected to the top part thereof, guiding means for the ribbon for causing the ribbon to be wound on the upper part of the drum as it is unwound from the lower part thereof, said ribbon carrying the days of the month, and means whereby the drum can be turned independently of the second cup-shaped member to re-set the ribbon thereon.

MICHAEL EMMET DEVAN.