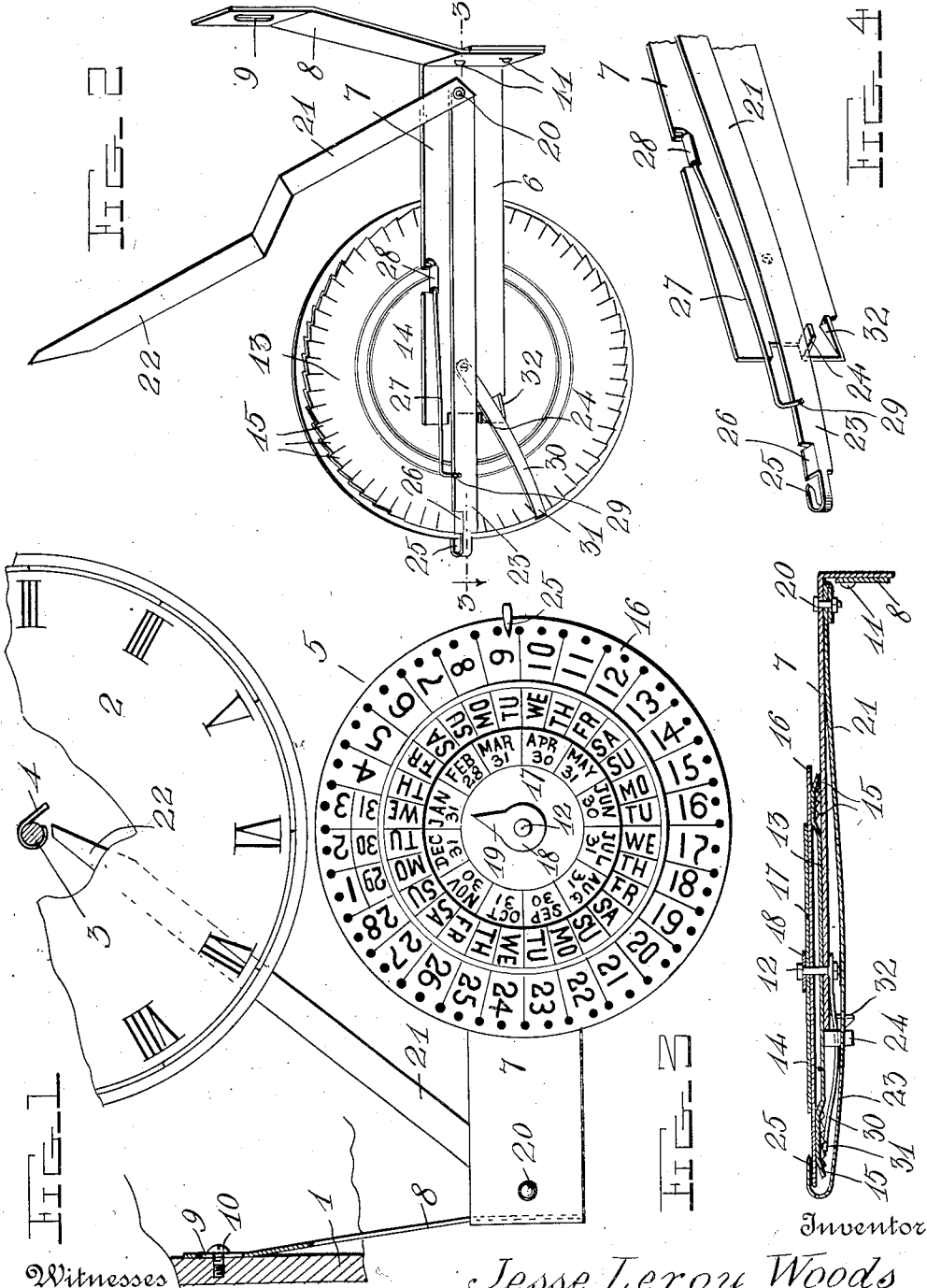


No. 845,603.

PATENTED FEB. 26, 1907.

J. L. WOODS.
CALENDAR CLOCK.

APPLICATION FILED MAR. 8, 1906.



Witnesses

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CALENDAR-CLOCK.

No. 845,603.

Specification of Letters Patent.

Patented Feb. 26, 1907.

Application filed March 8, 1906. Serial No. 304,942.

To all whom it may concern:

Be it known that I, JESSE LEROY WOODS, a citizen of the United States, residing at Balsora, in the county of Wise and State of Texas, have invented certain new and useful Improvements in Clock-Calendars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to calendar attachments for clocks, and consists in the novel construction, combination, and arrangement of parts, as will be hereinafter described and claimed.

The object of the invention is to provide a simple, durable, compact, comparatively inexpensive, and highly-efficient device of this character which may be readily mounted by any intelligent person in the casing of a clock between the pendulum wire or rod and the case-lid and actuated by the mechanism of the clock without in any way interfering with the proper operation of the same.

The above and other objects, which will appear as the nature of my invention is better understood, are accomplished by means of the construction illustrated in the accompanying drawings, in which—

Figure 1 is a view of a portion of a clock with my improved calendar attachment applied thereto. Fig. 2 is a perspective view looking at the rear of the attachment. Fig. 3 is a detail sectional view taken on the plane indicated by the line 3-3 in Fig. 2; and Fig. 4 is a detail perspective view, on an enlarged scale, of a portion of the supporting-frame and its angular lever.

Referring to the drawings by numerals, 1 denotes a portion of the casing of a clock of any description, 2 denotes the dial thereof, and 3 denotes the hour-hand shaft, upon which latter is provided a finger 4. The latter is preferably formed, as clearly shown in Fig. 1, by a strip of metal bent around and secured to the shaft 3 and has one of its ends projecting tangentially to form a finger. This finger 4 is adapted to actuate my improved calendar attachment 5, which is disposed within the clock-casing 1, and comprises a supporting-frame 6, consisting of a horizontally-disposed angular plate 7 and a bracket 8. The latter is in the form of a

strip or plate of metal bent angularly at its ends, one of which is formed with a slot 9 to receive a screw or other fastening 10, which adjustably secures the attachment to one of the sides of the clock-casing. It will be seen that by means of this slot-and-screw connection the supporting-frame 6 may be adjusted vertically and that by bending the bracket 8 it may be adjusted laterally or at any desired angle. The short right-angularly bent end of the plate 7 is riveted or otherwise secured to one end of the bracket 8, as shown at 11, so that its longer portion extends horizontally, as shown.

Pivotally mounted upon the front face of the plate 7 by means of a pivot-bolt 12, which is screwed into the plate 7 and locked therein by a nut, as shown in Fig. 3, is a metal disk 13, formed with a circular concentric depression 14 in its front face, which depression is adapted to receive calendar-disks 16 and 17. The latter, of celluloid or the like, are upon the front face of said disk, the pivot 12 passing through them and retaining them in the depression 14, so that their outer edges will bind, and they will be caused to turn with the plate. Upon the outer or upper disk 16 is a metal disk 18, through which the pivot 12 also passes. The edge or periphery of the plate 13 is notched or bent, as shown, to form teeth 15, the purpose of which will presently appear. The lower and upper disks 16 17 form a calendar, preferably of the perpetual type, the lower disk 16 having around its outer edge radially-arranged spaces, within which are printed or otherwise marked the days of the month, the arrangement being preferably as shown in Fig. 1. Each of these spaces represents a day and is subdivided by centrally-disposed dots to indicate the forenoon and afternoon of each day, it being understood that the calendar will be shifted one space every twelve hours. The outer or upper calendar-disk 17 is of less size than the disk 16, and is provided with concentric rows of radially-arranged spaces, in the outer of which are placed abbreviations of the days of the week, and in the inner of which are placed the names of the months and the number of days in each month for the purpose of showing the dates on which the months expire. The metal disk 18 is provided with a

pointer 19, which is adapted to indicate the month, as shown in Fig. 1 of the drawings. The disks 16, 17, and 18 are all concentric and independently pivoted on the pivot 12, so that they may be adjusted as found necessary.

Pivoted at its angle on the inner face of the plate 7 by a pivot-bolt 20, screwed into said plate and made fast by a nut, is a bell-crank or angularly-bent lever 21, one arm 22 of which extends upwardly and into the path of the finger 4 on the hour-hand 3, so as to be actuated by the same. The other arm 23 of the lever 21 extends horizontally, and its downward movement is limited by a stop 24, formed upon the free end of the plate 7 by stamping a portion of the same upwardly, as shown. The arm 23 of the lever 21 has a slight longitudinal curvature, as shown, so as to clear the nut upon the pivot 12, and the extreme outer end of said arm 23 is reduced and bent around the edges of the disks 13 and 16, so as to form a pointer 25, which coacts with the calendar, as will be readily understood. Upon said end of the arm 23 is also provided a finger or catch 26, which springs into engagement with the teeth 15 in the disk 13 by reason of the resiliency of the arm and actuates the disk 13, and hence the calendar. This finger 26 is preferably formed by stamping or bending the free edge of said end of the arm 23, as clearly shown in Fig. 4. The lever is returned to its normal position after being actuated by the finger 4 on the hour-hand shaft by means of a spring 27, which has one of its ends secured to the rear face of the plate 7 by stamping or bending a portion of the latter around said end, as at 28. The free end 29 of the spring is bent at right angles and engages the upper edge of the arm 23 of the lever 21, the end 29 having a slight downward inclination, so that the arm 23 of the lever will be forced toward the inner face of the plate 7 and the finger or catch 26 will be more effectively retained in engagement with the teeth 15. Retrograde movement of the disk 13 is prevented by a spring lever or pawl 30, which has its inner end pivoted upon the pivot-bolt 12 and its outer end formed with a catch or finger 31 to engage the teeth in the disk 13. Said pawl or lever 30 is held in its place between the stop 24 and a similar stop 32, formed upon the lower edge of the plate 7, by bending a portion of the same upwardly, as shown.

The construction, operation, and advantages of the invention will be readily understood from the foregoing description, taken in connection with the accompanying drawings. It will be noted that the attachment may be readily applied to a clock of any description by any intelligent person and that the calendar may be quickly adjusted at the

end of each month, so that the pointer 25 will properly indicate each day.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention and defined by the appended claims.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination with a clock-casing and hour-hand shaft, of a supporting-frame mounted within said casing, a disk pivoted to said frame and provided with teeth, a calendar upon said disk, an angular lever pivoted to said frame and actuated by said hour-hand shaft, a pointer associated with said lever to coact with said calendar, a finger carried by said lever and engaging said teeth for rotating the disk, a spring upon said frame and engaged with said lever for returning the latter to its normal position, and a pawl pivoted upon said frame and adapted to engage said teeth to prevent retrograde movement of said disk, substantially as described.

2. The combination with a clock-casing and hour-hand shaft, of a supporting-frame, means for adjustably mounting the same within said casing, a disk pivoted upon said frame and formed in its edge with teeth, a calendar upon said disk, an angular lever pivoted to said frame and actuated by said hour-hand shaft, a pointer formed upon one end of said lever and adapted to coact with said calendar, a finger formed on said end of the lever and engaging said teeth for rotating said disk, a stop upon said frame to limit the movement of said lever, a spring attachment to said frame and having an angularly-bent end to engage said lever, a pawl or spring lever upon said frame and adapted to engage said teeth to prevent retrograde movement of said disk, and a stop upon said frame to hold said pawl or spring lever in position, substantially as described.

3. The combination with a clock-casing and hour-hand shaft, of a supporting-frame, means for adjustably mounting the same within said casing, a disk pivoted upon said frame and formed in its edges with teeth, a calendar upon said disk comprising a lower disk having day-spaces, an upper disk having week and month spaces and an outer disk provided with a pointer, an angular lever pivoted to said frame and actuated by said hour-hand shaft, a pointer formed upon one end of said lever and adapted to coact with said calendar, a finger formed on said end of the lever and engaging said teeth for rotating said disk, a stop upon said frame to limit the movement of said lever, a spring attached to said frame and having an angu-

larly-bent end to engage said lever and hold
said finger in engagement with said teeth,
and a pawl or spring lever pivoted upon said
frame and adapted to engage said teeth to
5 prevent retrograde movement of said disk,
and a stop upon said frame to hold said pawl
or spring lever in position, substantially as
described.

In testimony whereof I have hereunto set
my hand in presence of two subscribing wit- 10
nesses.

JESSE LEROY WOODS.

Witnesses:

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O. C. DORRELL.