(No Model.)

A. M. LANE.

CALENDAR CLOCK.

No. 348,982. Patented Sept. 14, 1886.

Fig. 1.

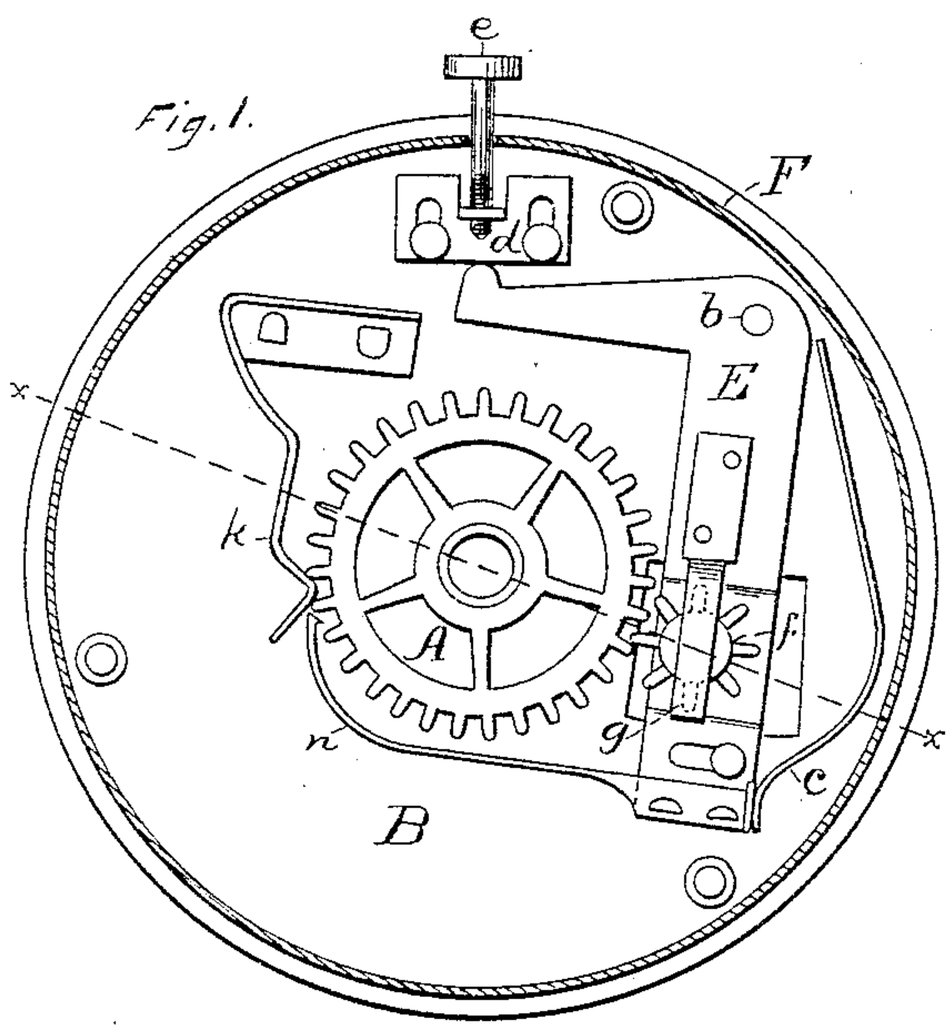


Fig. 2.

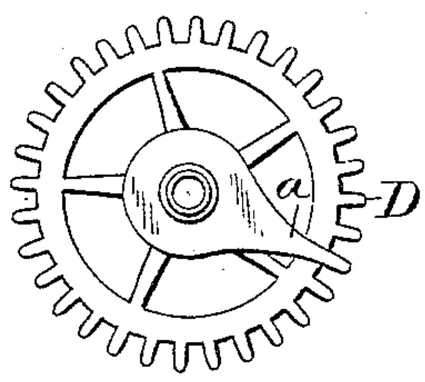


Fig. 3.

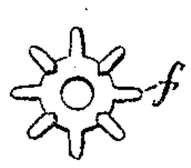
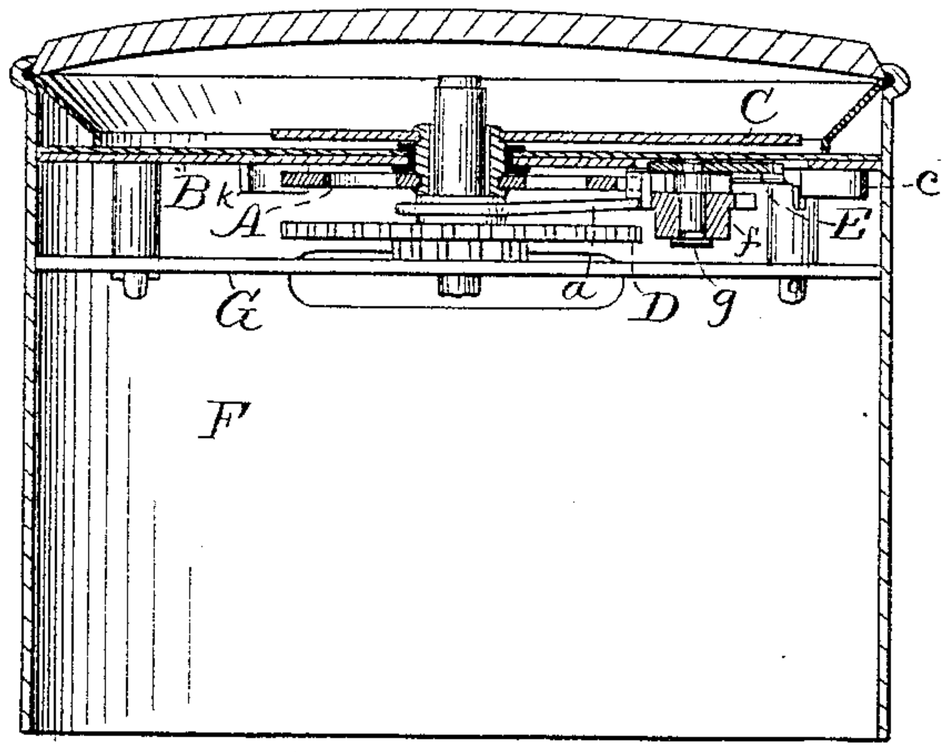


Fig. 4.



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CALENDAR-CLOCK.

SPECIFICATION forming part of Letters Patent No. 348,982, dated September 14, 1886.

Application filed February 23, 1886. Serial No. 192,717. (No model.)

To all whom it may concern:

Be it known that I, ALMERON M. LANE, a citizen of the United States, residing at Meriden, in the county of New Haven and State of Connecticut, have invented certain new and useful Improvements in Calendar-Clocks, of which the following is a specification.

My invention relates to improvements in calendar-clocks; and the objects of my invention are to provide a convenient device for setting the calendar, and also to so construct the mechanism that the calendar-pointer may be set at any time without interfering with the proper operation of the calendar.

All of the figures in the accompanying drawings are on an enlarged scale.

Figure 1 shows a sectional view of a clock-case and a rear view of the dial and attached calendar mechanism. Fig. 2 is a front elevation of the twelve-hour wheel, which carries the hour-hand of the time-piece, and to which is attached a point or spur. Fig. 3 is a front elevation of the pinion with which this point or spur engages; and Fig. 4 is a sectional view on line *x x* of Fig. 1, partly in elevation, of my calendar mechanism and parts of the clock.

A designates the day-of-the-month wheel, which is attached to a hollow shaft in the middle of the clock-dial B, to the front end of which hollow shaft is attached the calendar-pointer C.

The ordinary twelve-hour wheel, D, has attached to it a tripping point or spur, *a*.

The front plate, G, of the clock-movement is shown in Fig. 4.

E designates an angle-lever, which is pivoted at *b*, Fig. 1, to the dial-back. A spring, *c*, which is secured to the dial-back, presses upon the lower end of this lever E, so as to hold it in position, as shown in Fig. 1. The other end of the arm E bears against the under side of the slide *d*, which slide is operated by a handle, *e*, the body of which extends through a hole in the top of the case F. Mounted upon a stud on this angle-lever E is a pinion, *f*, having eight teeth, four of which extend across the whole thickness of the edge of the pinion, while the other four are so cut away as to extend only partly across the edge of the pinion, thereby producing a pinion which has eight teeth in one plane and only four teeth in another plane. This particular pinion, although new, is the invention of other parties, and not claimed by me. This pinion is kept from accidental rotation by means of the spring *g*. This pinion is so placed on the lever E that the eight teeth are in a proper plane to be operated upon by the tripping spur or point *a*, while the portion of said pinion having only four teeth is in the same plane as the day-of-the-month wheel A, with which they engage. This day-of-the-month wheel is held against accidental rotation by means of a spring, *k*.

At the lower end of the angle-lever E there is attached a spring-hook, *n*, Fig. 1.

During the month the spur or point *a* engages once in twelve hours with the pinion *f*, and moves the same one tooth, thereby imparting to the day-of-the-month wheel a movement equal to one of its teeth for every two movements of the pinion *f*. At the end of a short month the pointer can be turned forward a proper distance by depressing the handle *d*, thereby moving the angle-lever E on its fulcrum and first disengaging the teeth of the pinion *f* from the teeth of the day-of-the-month wheel A, after which the spring-hook *n* strikes a tooth of the day-of-the-month wheel, and as the angle-lever moves on the day-of-the-month wheel is moved a space which represents one day. Upon releasing the handle the spring *c* restores the angle-lever E to its former position, the spring *k* being small enough to hold the day-of-the-month wheel against rotation while the point of the spring-hook *n* is moving back over the tooth on said day-of-the-month wheel. By depressing the handle as many times as the number of spaces or days that it is desired to move the pointer forward the calendar can be set to indicate the proper day of the month. The pinion *f* does not move at all on its axis when the calendar is thus set forward, and therefore it is immaterial whether the pointer is turned forward in the morning or afternoon. If it is at first set properly so as to make the changes at midnight, it will continue to do so after the pointers have been turned forward by the setting mechanism, no matter what time of day the pointer is thus set.

I have herein shown my mechanism as having the peculiar pinion *f* mounted upon the angle-lever E; but my invention is applicable to other forms of calendars—that is to say,

that a wheel revolving once in twenty-four hours instead of twelve might be arranged in like manner upon the angle-lever E—the main feature of the invention residing in mounting the wheel which connects with the day-of-the-month wheel upon this lever, whether that wheel revolves once in twelve hours or at other times.

I claim as my invention—

In a calendar-clock, the combination of the day-of-the-month wheel, the angle-lever bearing the spring-hook for engaging the teeth of said wheel when the angle-lever is moved, and the wheel which drives the day-of-the-month wheel mounted upon said angle-lever in proper position to engage said day-of-the-month wheel when said lever is at rest, substantially as described, and for the purpose specified.

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Witnesses:

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