

(No Model.)

2 Sheets—Sheet 1.

T. W. R. McCABE.
CALENDAR CLOCK MECHANISM.

No. 571,198.

Patented Nov. 10, 1896.

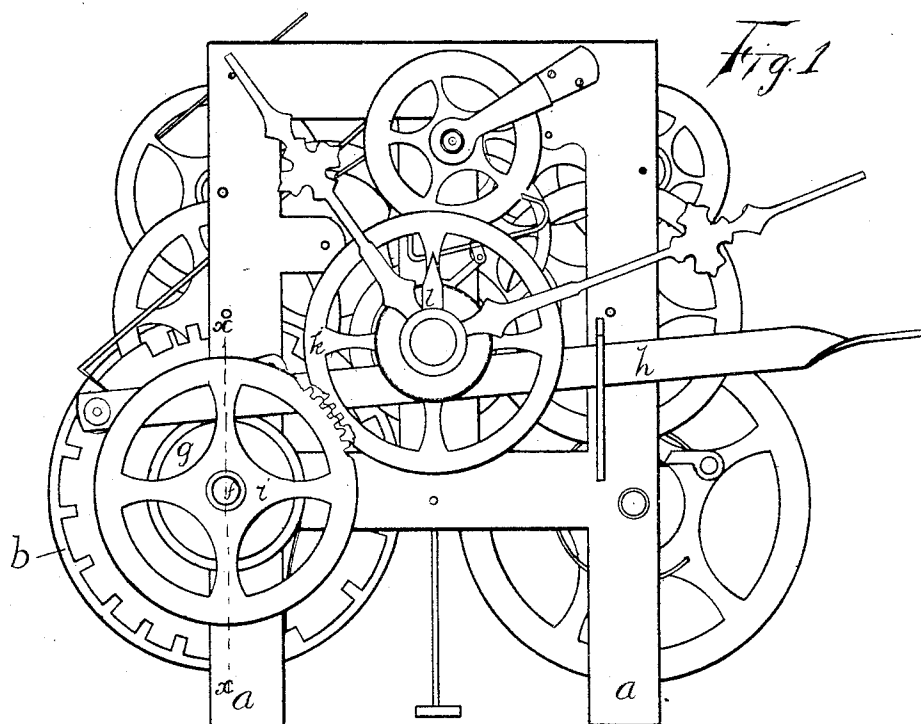


Fig. 2

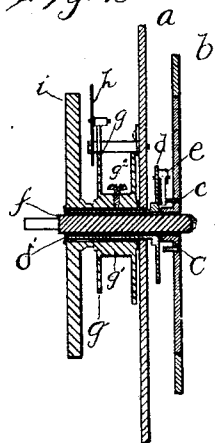


Fig. 3

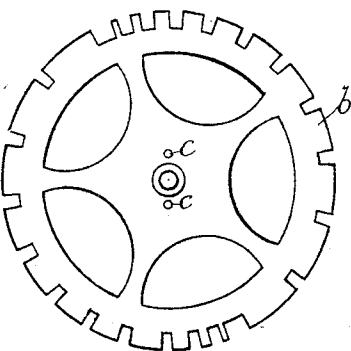
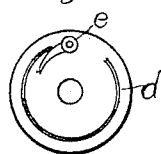


Fig. 4



Witnesses
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(No Model.)

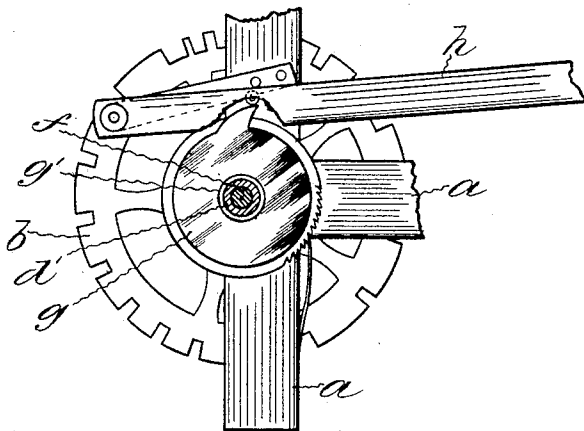
2 Sheets—Sheet 2.

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Fig. 5.



Witnesses

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UNITED STATES PATENT OFFICE.

THOMAS W. R. McCABE, OF WINSTED, CONNECTICUT, ASSIGNOR TO THE
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CALENDAR-CLOCK MECHANISM.

SPECIFICATION forming part of Letters Patent No. 571,198, dated November 10, 1896.

Application filed April 15, 1896. Serial No. 587,718. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. R. McCABE, a citizen of the United States of America, residing at Winsted, in the county of Litchfield and State of Connecticut, have invented a certain new and useful Improvement in Calendar-Clock Mechanisms, of which the following is a description, reference being had to the accompanying drawings, wherein—

Figure 1 is a front or face view of the "works" of a clock embodying said improvement. Fig. 2 is a detail sectional view. The plane of the section is denoted by the dotted line *xx* on Fig. 1. The section extends from the front backward far enough to include the "count-wheel." Fig. 3 is a front face view of the count-wheel. Fig. 4 is a rear face view of a small disk next in front of the count-wheel, carrying a pawl which coöperates with the pawl-stops carried by the count-wheel. Fig. 5 is a view showing the cam and its lever in a vertical section at right angles to the vertical section shown in Fig. 2.

The improvement pertains to the mechanism of calendar-clocks.

One of the objects of the improvement is to permit the calendar mechanism to be "set" by the rotation of an index-finger journaled on the same shaft with the hands of the clock.

Another object of the improvement is to permit the calendar mechanism to be manually set so that the calendar mechanism will make its daily change at the desired time, generally midnight, although the clock may have run down or stopped at any hour and minute of the twenty-four hours.

Other objects will appear incidentally in the description of the construction and operation of the improvement.

In the accompanying drawings, the letter *a* denotes the frame of the works of a clock. The time mechanism is, as usual, at the right—in the main—of the shaft that carries the hands, and the striking mechanism is, as usual, at the left—in the main—of that shaft.

The letter *b* denotes the rotary disk that is known as the "count-wheel," which rotates only during the operation of striking, and it makes a complete rotation only once in twenty-four hours. This count-wheel carries with it as it rotates two pawl-stops *c*,

which are located on opposite sides of the axis on which they rotate.

The letter *d* denotes a rotary disk carrying a spring-pressed pawl *e*, adapted to coöperate with the pawl-stops *c*. Either of these stops coming against the free end of the pawl will cause the disk *d* to rotate with the count-wheel, but when that count-wheel is rotated in the opposite direction the free end of the pawl rides over these stops upon coming in contact therewith. The disk *d* is fast to a sleeve *d'*, journaled on the shaft *f* of the spring which drives the striking mechanism.

The letter *g* denotes a rotary cam, which, through the medium of sleeve *g'* and screws *g²*, is made to rotate with the sleeve *d'*, disk *d*, and pawl *e*.

The letter *h* denotes the calendar-operating lever, having a small friction-roller on the side thereof resting on the periphery of the rotary cam *g*. At the proper time the cam *g* raises this lever, and when it drops off the edge of the spur on the cam it effects the change of the calendar, the mechanism for effecting that change being (or it may be) the ordinary mechanism.

The sleeve *d'* carries the gear *i* as well as the rotary cam *g*. This gear *i* meshes into a gear *k*, which is journaled on the same shaft with the hands of the clock. The letter *l* denotes an index fast, for the time being, to a sleeve projecting forward from the gear *k*, so that this index and the gear *k* rotate together. By rotating this index *l* the disk *d*, carrying the pawl *e*, is correspondingly rotated, and this is done in the setting of the calendar mechanism.

It will be readily understood from this description that the setting of the calendar mechanism can be effected by the proper rotation of the index journaled upon the same shaft which carries the hands of the clock. It is also a fact that by means of the mechanism described the calendar mechanism can be manually set to make the change in the calendar at any desired and specific minute and hour, whether the clock be running or not, no matter at what time the clock may have stopped or run down.

This device can be arranged on the time or strike side of movement, preferably the strike

side, as all resistance is taken from the timing. The device is also applicable to change other devices than calendar, such as figures of various kinds.

- 5 The device is not limited to two pins, as, for instance, if the count-wheel made two or more revolutions in twenty-four hours it would be required to have an extra gear, so that the click-disk will be carried the required
10 number of revolutions desired to obtain desired movement of figures at the period required.

I claim as my improvement—

- 15 1. In combination, the striking mechanism of the clock, including the count-wheel *b* carrying pawl-stops *c c*, the pawl *e* cooperating with said stops, the calendar-operating lever *h*, and the rotary cam *g* connected to pawl *e*, all substantially as described and for the purpose
20 set forth.

2. In combination, the striking mechanism of the clock, including the count-wheel *b* carrying

the two pawl-stops *c c* on opposite sides of the axis, the pawl *e* cooperating with the said stops, the calendar-operating lever *h*, and the rotary cam *g* connected to pawl *e*, all substantially as described and for the purposes set forth.

3. In combination, the striking mechanism of the clock, including the count-wheel *b* carrying the two pawl-stops on opposite sides of the axis, the pawl *e* cooperating with the said stops, the time mechanism of the clock, the index *l* journaled on the same axis as the clock-hands, the gear *k* adapted to rotate with such index, the gear *i*, the calendar-operating lever *h*, and the rotary cam *g* connected to the pawl *e*, all substantially as described and for the purposes set forth.

THOS. W. R. McCABE.

Witnesses:

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