A. S. Vose.

Calender.

No. 75659 Patented Mar. 17, 1868

Fig 2

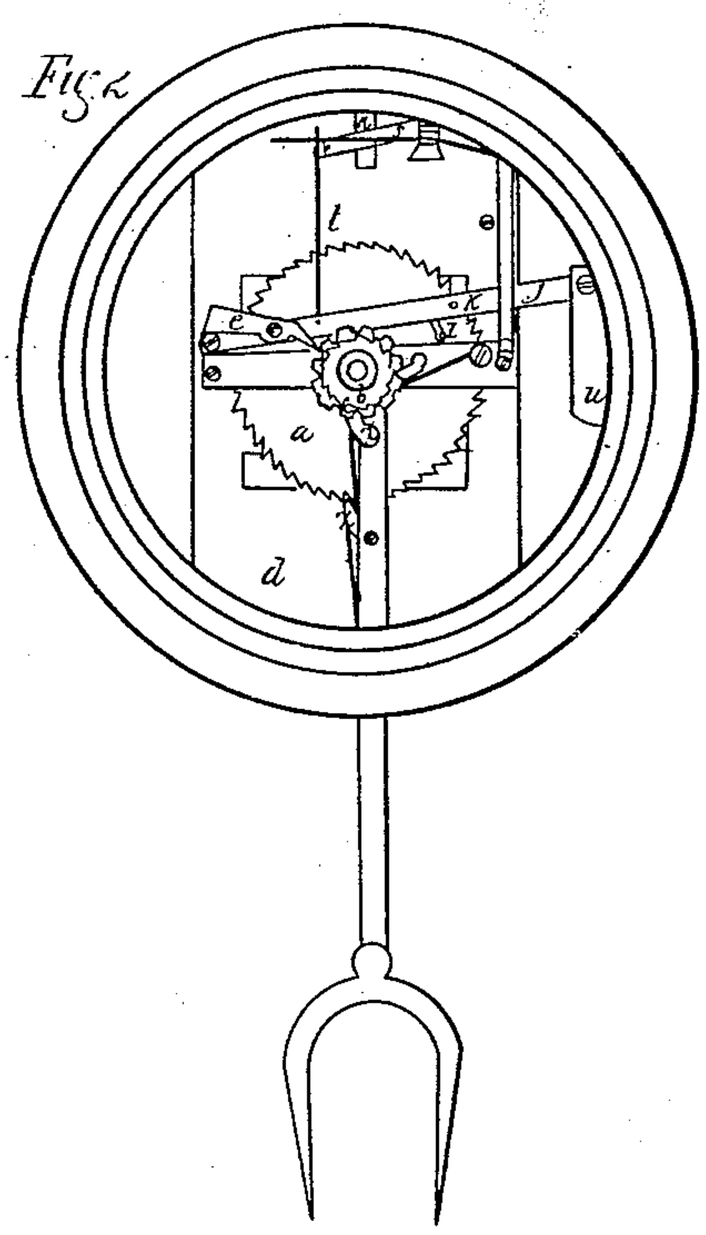


Fig 1

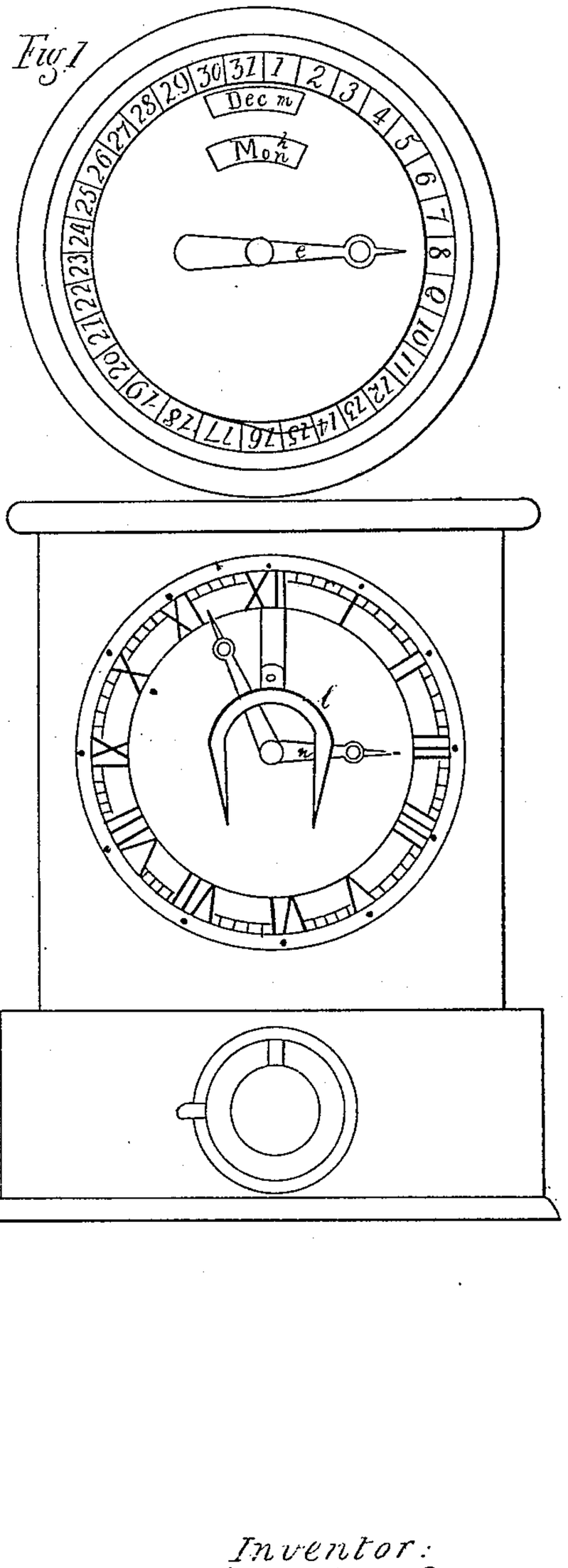
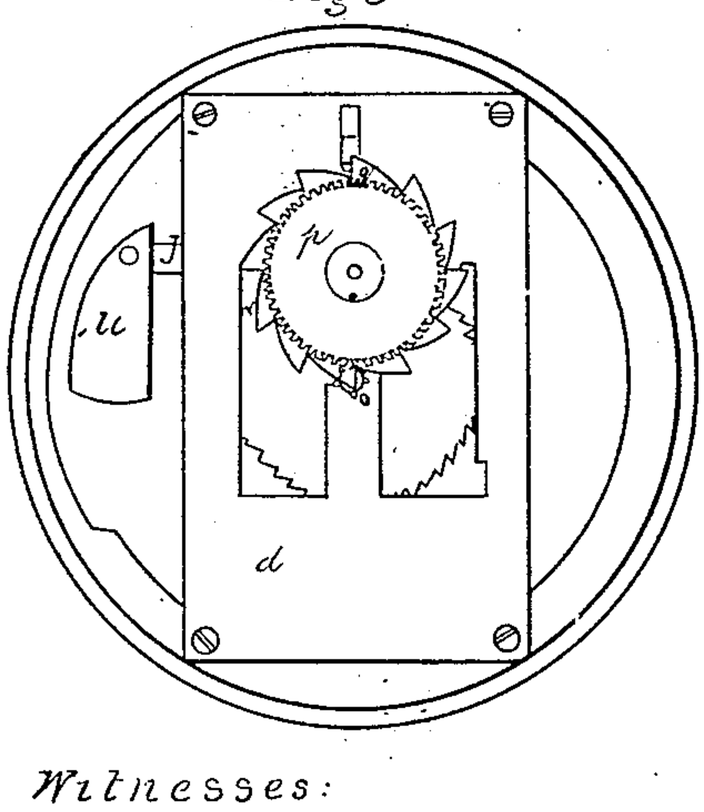


Fig 3



Witnesses:

N B Smith

Alex Mahon

Inventor:

Ambrose S. Vose

by his Attorney A M. Smith

United States Patent Office.

AMBROSE S. VOSE, OF RANDOLPH, VERMONT.

Letters Patent No. 75,659, *dated March* 17, 1868.

IMPROVEMENT IN CALENDARS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, AMBROSE S. VOSE, of the town of Randolph, in the county of Orange, and State of Vermont, have invented a new and useful Improvement in Calendar-Attachments to Clocks; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing, making a part of this specification, in which—

Figure 1 represents a front of the machine attached to a common clock.

Figure 2 represents a front view of the inside gearing that works the month-hand, and the revolving plates carrying the disks that show the month and day of the week; and

Figure 3 is a rear view of the same.

My invention consists in constructing a perpetual calendar, with a combination of levers and wheels, in such a way that it may be set on the top of any common clock, and be operated by the hour-hand of such clock, by means of a lever running from the calendar to intersect with the motion of the hand in such manner as to make its own adjustments, and give the day of the month and the day of the week correctly.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct three ratchet-wheels, represented in fig. 2 by letters *a b c*, and attach them to the frame *d* by means of a shaft passing through their centre. The wheel *a* has sixty-two teeth, and is made fast to the shaft, on which is placed the hand *e* that points to the day of the month over the dial-face, fig. 1. The wheel *b* has fourteen teeth, and turns on the centre-shaft *e*, and is provided with a flange or collar a quarter of an inch in length, upon which the month-wheel *c* is mounted and turns. Said wheel is provided with twelve teeth, corresponding to the months in the year. The wheels *a* and *b* are each moved by small spring-pawls *x x*, on the lever *f*, one notch by each vibration of said lever. The lever *f* makes two vibrations every twenty-four hours, carrying or turning the wheels *a* and *b* forward two notches; hence the wheel *a*, having sixty-two teeth, performs one revolution in thirty-one days, each day being shown by the hand *e*, on the dial-plate, fig. 1. The wheel *b* has fourteen teeth, and performs one revolution in seven days, turning the dial-plate *g* attached to it, and showing the day of the week through the dial, (see fig. 1, at *h*.)

To show the month of the year, I attach to the wheel *a* an eccentric-plate, which raises the lever J through the pin *k* in twenty-eight days, equal to the shortest month in the year. When the lever J falls, it strikes the small spring-catch *z*, on the wheel *a*, and turns the wheel the remaining part of the thirty-one days, setting the hand *e* to the first day of the next month. The wheel *c*, which has twelve teeth, corresponding with the twelve months of the year, is turned one notch by the falling of the lever J, by means of the catch *l*. The circular plate *m* is firmly attached to the wheel *c*, which is set by the lever J, showing the month of the year at *m*, on the face, fig. 1.

To graduate the dropping of lever J to the day corresponding to the length of the different months, I attach a small ratchet-wheel, *o*, to the end of the centre-shaft, on the back of the frame *d*, said wheel *o* having five teeth, as shown in fig. 3, turning the wheel *p*, which has sixty teeth, and performs one revolution in a year. To this year-wheel I attach the plate *q*, the outer surface of which is divided into twelve sectional teeth, the size or length of each corresponding to the number of days in each month, on which rests the pin *r*, passing through the plate from the lever *s*, which is connected with lever J, and holds the lever from dropping after the eccentric leaves the pin, until the remaining days of the month are shown.

The weight *u* is to give the lever J sufficient power to govern the changes, thus making a machine to show correctly each month of the year, each day of the month, and each day of the week, by a calendar that may be attached to any common clock now in use in the following manner, viz: The calendar may be placed on the top of any common clock, as shown in fig. 1, and held in any substantial manner; the lever *f* passing down through the case of the clock on the outside of the face, the fork of the lever *f* embracing the shaft on which the hands are placed, at a point directly underneath the hour-hand. Then a pin is put in the hour-hand at *n*, one inch from the centre, that touches the forks of the lever in the revolution of the hand, and gives to said lever one vibration every twelve hours, as described.

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

1. The construction of the perpetual calendar, whereby it is adapted to be attached to and operated by any clock, by means of the hour-hand and forked lever, substantially as described.

2. The levers *s* and J, combined with the plate *q*, to set the month-hand *e* from the last day of months of different lengths to the first day of the succeeding month, and to set the month of the year at the same time, substantially as described.

AMBROSE S. VOSE.

Witnesses:

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LYMAN GIBBS.