T. J. THORP.

Calendar.

No. 165,769. Patented July 20, 1875.

Fig. 1.

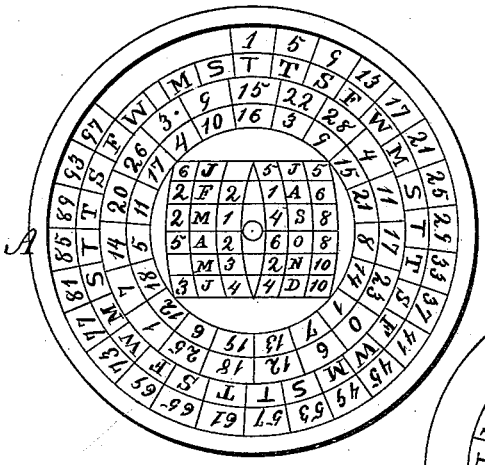


Fig. 3.

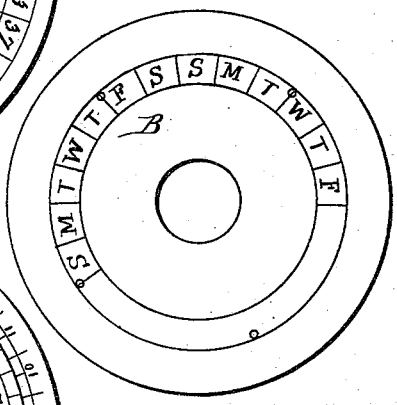


Fig. 2.

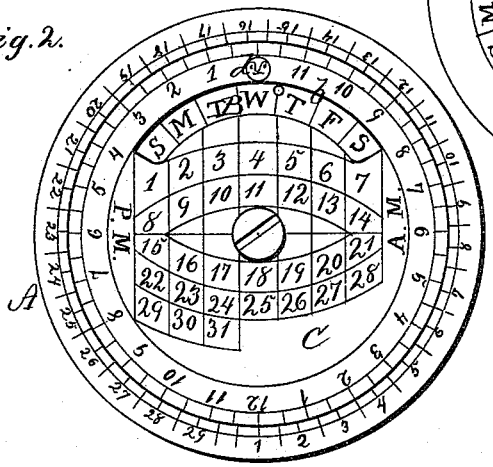
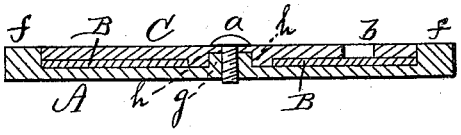


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

THOMAS J. THORP, OF NAVARRE, OHIO.

IMPROVEMENT IN CALENDARS.

Specification forming part of Letters Patent No. **165,769**, dated July 20, 1875; application filed December 31, 1874.

To all whom it may concern:

Be it known that I, THOMAS J. THORP, of Navarre, in the county of Stark and in the State of Ohio, have invented certain new and useful Improvements in Calendars; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My present invention is intended as an improvement upon the calendar for which Letters Patent No. 156,391 were granted to me October 27, 1874; and it consists in so constructing the yearly part of my calendar as to show at what time, on any given day, the moon crosses the meridian, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a view of the "century" side of my calendar. Fig. 2 is a view of the opposite improved part of the same. Fig. 3 is a view of the middle disk of said improved part; and Fig. 4 is a longitudinal section of the calendar.

A represents a circular plate or disk of any suitable dimensions, upon one side of which is formed the century-calendar, as shown in Fig. 1, and fully described in my former patent, above referred to. The opposite side of the disk A is provided with a circular recess, which forms an annular flange, *f*, on this face of the disk, and in the center of the same is formed a hub, *g*. Within the recess is placed a disk, B, of thin metal, which has a central opening to surround the hub. Upon the top of the disk B is placed another thin disk, C, having a central cup, *h*, on its lower face, which fits neatly over the hub *g*. The two disks B and C are of a thickness equal to the depth of the recess in the disk A, so that when they are placed in position the outer surface of the outer disk is flush with the surface of the flange *f*. The three disks are secured together by a central screw, *a*. The remaining space of the surface of the disk A is divided into twenty-nine and one-half equal spaces corresponding with the length of a lunar month, and they are numbered from 1 to 29 respectively, leaving a space of one half the width between the 29 and 1. The middle disk B has a series of letters, denoting the days of the week, arranged in a concentric circle, so that seven of them may be seen through a slot, *b*, in the disk C. The face of the disk C is arranged, as shown in Fig. 2, with the figures 1 to 31 to form, in connection with the letters appearing through the slot *b*, an ordinary monthly calendar, the disk to be set on the first day of every month. The face of the disk C is, around the edge, divided into forty-eight equal spaces, each representing one-half hour. The alternate spaces are numbered from 1 to 12, and again from 1 to 12, forming, as it were, a double clock-dial. One of the figures, 12, is omitted, and in place thereof is formed the representation of a moon, *d*. The figures to the left of this moon are marked P. M., and those to the right A. M.

When it is desired to find at what hour the moon passes the upper meridian on any given day in a certain month, the disk C must be turned until the moon *d* is opposite the day of the new moon on the disk A. The day of the new moon is found on the century side of the calendar, as described in my former patent.

Supposing the new moon is on the 16th, the disk C is set to bring the moon *d* opposite the 16 on the disk A, and as near as possible in proportion to the hour, whether nearer the 15th or 17th, as the case may be. It will then be seen that, for instance, on the 28th the moon will pass the meridian at 10 o'clock, P. M., on the 12th it had passed at 9 o'clock, A. M., and so on for any day in the month.

It will readily be understood that my calendar may be formed in watch-cases, snuff-boxes, tobacco-boxes, or other articles usually carried about, the disk A being formed of the watch-case, box-lid, &c. It may also be made separate, of suitable size, as a watch-charm, or in any other desired manner.

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

The combination of the disk A, having recess, annular flange *f*, and hub *g*, with the disk B, and the disk C having curved slot *b*, all connected by the screw *a*, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of December, 1874.

THOMAS J. THORP.

Witnesses:

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C. L. EVERT.