No. 615,098. Patented Nov. 29, 1898.

G. B. NICHOLS.

CALENDAR TELLURIAN.

(Application filed Mar. 17, 1898.)

(No Model.) 2 Sheets—Sheet 1.

Fig. 1

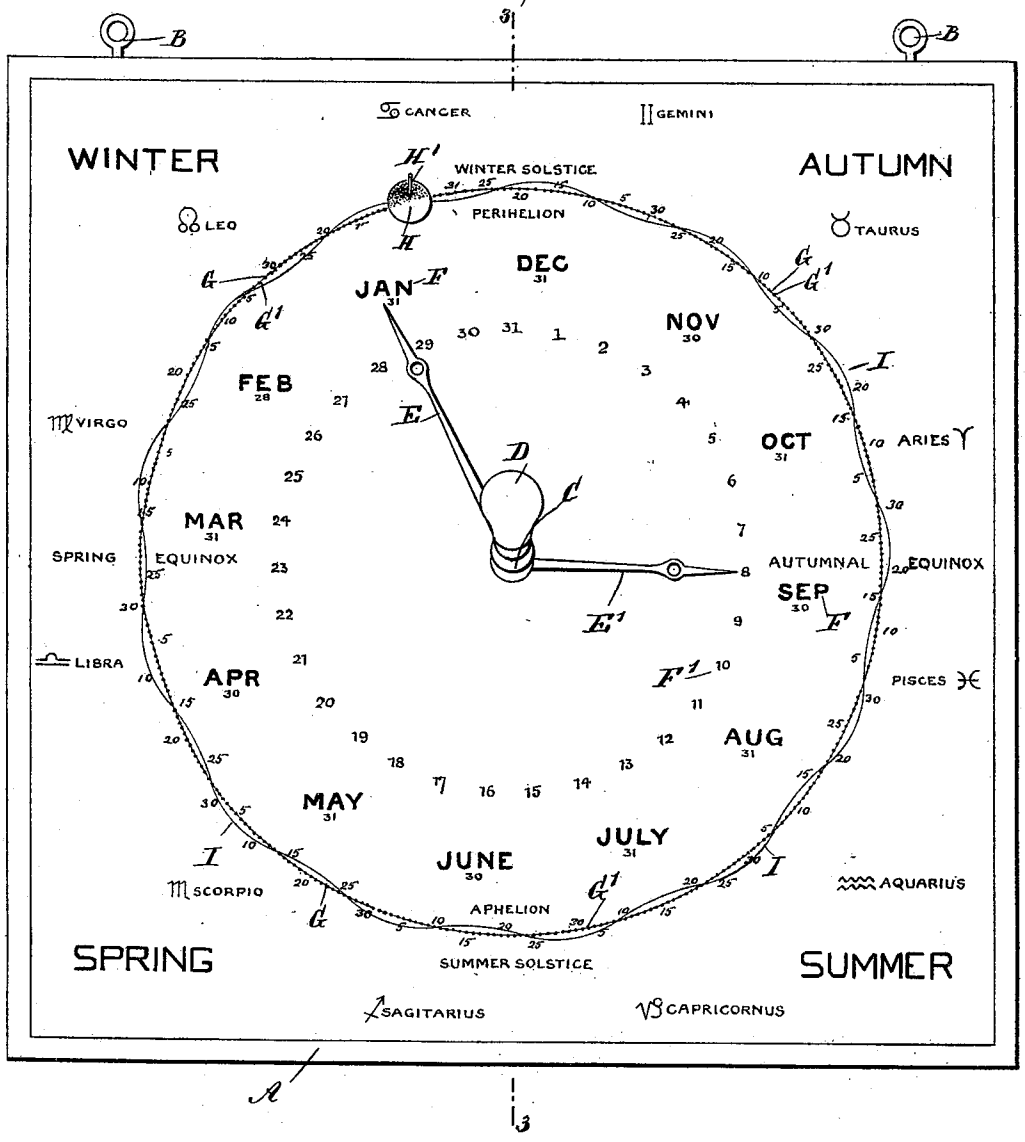
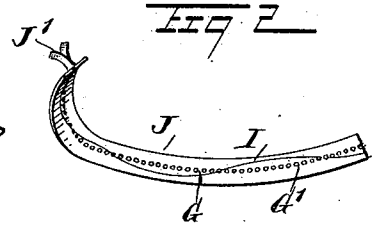


Fig. 2



WITNESSES:

H. Walker

Rec. J. Foster Jr.

INVENTOR

G. B. Nichols

BY

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 615,098. Patented Nov. 29, 1898.

G. B. NICHOLS.

CALENDAR TELLURIAN.

(Application filed Mar. 17, 1898.)

(No Model.) 2 Sheets—Sheet 2.

Fig 3

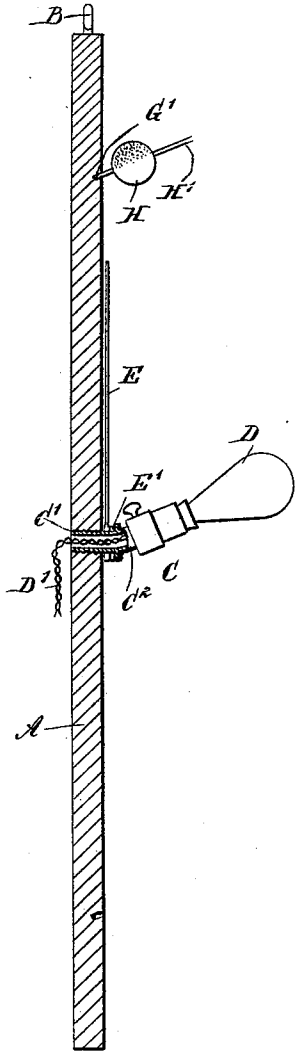


Fig 4

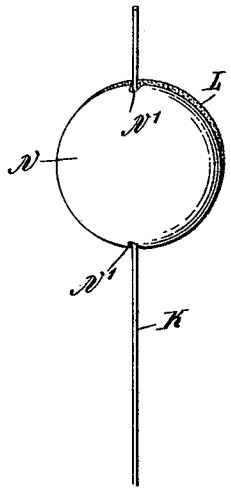


Fig 5

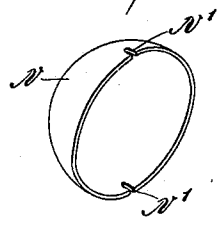
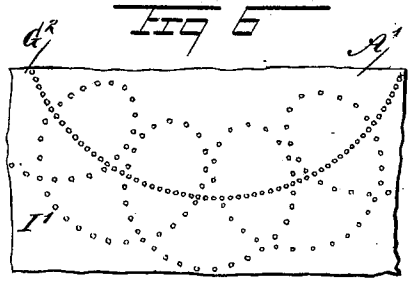


Fig 6



WITNESSES:

H. Walker

Percy J. Hoskins

INVENTOR

G. B. Nichols

BY

Munn & Co

ATTORNEYS.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

GRANT B. NICHOLS, OF WAPAKONETA, OHIO.

CALENDAR-TELLURIAN.

SPECIFICATION forming part of Letters Patent No. 615,098, dated November 29, 1898.

Application filed March 17, 1898. Serial No. 674,201. (No model.)

To all whom it may concern:

Be it known that I, GRANT B. NICHOLS, of Wapakoneta, in the county of Auglaize and State of Ohio, have invented a new and Improved Calendar-Tellurian, of which the following is a full, clear, and exact description.

The invention relates to tellurians such as shown and described in the Letters Patent of the United States Nos. 522,082 and 550,523, granted to me on June 26, 1894, and November 26, 1895, respectively.

The object of the present invention is to provide a new and improved calendar-tellurian for use in schools, offices, homes, &c., and arranged to indicate the month of the year, the day of the month, the exact position relative to the sun on each day of the year, the constellation, position and location of the earth among the stars or zodiac, and correctly represent day and night on the earth, as well as the seasons, equinoxes, and solstices, aphelion, and perihelion.

The invention consists of novel features and parts and combinations of the same, as will be described hereinafter and then pointed out in the claim.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a face view of the improvement. Fig. 2 is an enlarged perspective view of the metal strip formed with the path of the earth and that of the moon. Fig. 3 is a cross-section of the improvement on the line 3 3 of Fig. 1. Fig. 4 is an enlarged front elevation of the hood on the moon. Fig. 5 is a perspective view of the hood, and Fig. 6 is a face view of a modified or exaggerated form of the path of the moon relative to that of the earth.

The calendar-tellurian is mounted on a suitably-constructed board or table A, provided with eyes B or other devices for fastening the board to a wall or other support. At or near the center of the elliptical earth's orbit on the board A screws the threaded end C′ of a support, preferably in the form of a tube C, standing at an angle of twenty-three and one-half degrees to the front face of the table, as is plainly indicated in Figs. 1 and 3, and on the outer end of the pipe or tube C is removably held an electric lamp D, the wires D′ of which extend through the tube C to the back of the board A to connect with a suitable source of electricity, so that when the switch for the electric lamp is turned on the rays of light emanating from the electric lamp illuminate the board A, as well as the room in which it is located, the said lamp, however, representing the sun in the tellurian.

The tube C is provided near its threaded end with a shoulder C^2, next to which are mounted loosely two pointers E E′, of which the pointer E is adapted to indicate on the names F the month of the year, while the pointer E′ is adapted to indicate on the days F′ of the month, both names and days being arranged in concentric circles on the face of the board, as is plainly indicated in Fig. 1.

On the board A, outside of the circle containing the names F, is arranged the elliptical path G for the earth H, represented by a ball or globe on a pin or pole H′ set into one of the apertures G′, formed in the path G and standing angularly to the face of the board, the said apertures representing the three hundred and sixty-five days of the year and corresponding to the divisions of the month indicated on the board at F, as above mentioned. Through this path for the earth extends a line I, representing the true path of the moon relative to the path of the earth, and when the printed face of the tellurian is mounted on pasteboard instead of wood then the two paths I and G are preferably formed on a metal strip J, having fastening devices J′ for securing said strip J to the pasteboard A, as will be readily understood by reference to Fig. 2. By having the metal strip J, containing the openings G′, for the path of the earth the pin H′, carrying the earth H, will be securely held in place on the pasteboard, so as to display the earth in the proper position for the day of the year.

On the board A, outside of the paths G and I, is arranged the zodiac as well as the permanent constellation of stars, so that the position of the earth on any given date on the path G shows the permanent constellations of the stars for that day as well as the corresponding member of the zodiac. Thus, for instance, as illustrated in Fig. 1, the pointers E E′ are set for the 8th of January and the pin H′ is set in the aperture G′, representing

the 8th of January on the path G, thus indicating that the earth is in cancer. The rays of light from the sun represented by the electric lamp D will illuminate that portion of the earth H facing the lamp, so that the illuminated portion of the earth can be readily seen for any part of the day by turning the earth correspondingly on its pin. The four seasons of the year are also indicated at the corners of the board A, as will be readily understood by reference to Fig. 1.

As shown in Fig. 1, the moon's path is only indicated by a line; but in order to show the moon in relation to the earth, so that its phases may be shown naturally and easily understood by children, I may arrange the exaggerated path I′ for the moon relative to the path G^2 of the earth, as indicated in Fig. 6, and which arrangement is the same as that shown in the patents above referred to, the path I′ having the apertures for a pin or pole K, carrying a ball or globe L representing the moon, as shown in Fig. 4. A hood N, made of a lustrous material and semispherical in shape, is preferably placed on the ball L, with one or both of two elongated notches N′ instead of eyes, as shown in my former patents, fitting on the pin or pole K, the said notches permitting a proper adjustment of the hood, so as to cover more or less of the ball, showing the moon in libration according to the position of the moon relative to the earth. A similar hood may also be used in connection with the earth H, except that it is transparent and not lustrous, so that the direct rays of the sun falling on the earth are readily illustrated by means of the hood. When used on the moon, the hood can be turned so as to represent at any time the illumination or phases or reflected sun-rays or moonlight as seen from the earth.

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

A calendar-tellurian, comprising a back board or table having a series of marked apertures representing the elliptical path of the earth around the sun, the apertures corresponding in number to the days in a year, a ball or globe representing the earth and held on a pin representing the earth's axis and adapted to be set in one of the said apertures, a lamp carried by an inclined support secured to the said board at or near the center of the said elliptical orbit of the earth, and pointers mounted to turn upon the central portion of the support and pointing respectively to the name of the month and the day of the month, the said names and days of the month corresponding to sections of the said path of the earth.

GRANT B. NICHOLS.

Witnesses:
CHAS. W. NICHOLS,
CHAS. HAUSS.