L. H. VAN SYCKLE, DEC'D.
J. F. CREAMER, EXECUTOR.
TELLURIAN.
APPLICATION FILED OCT. 20, 1917.

1,271,104.

Patented July 2, 1918.
2 SHEETS—SHEET 1.

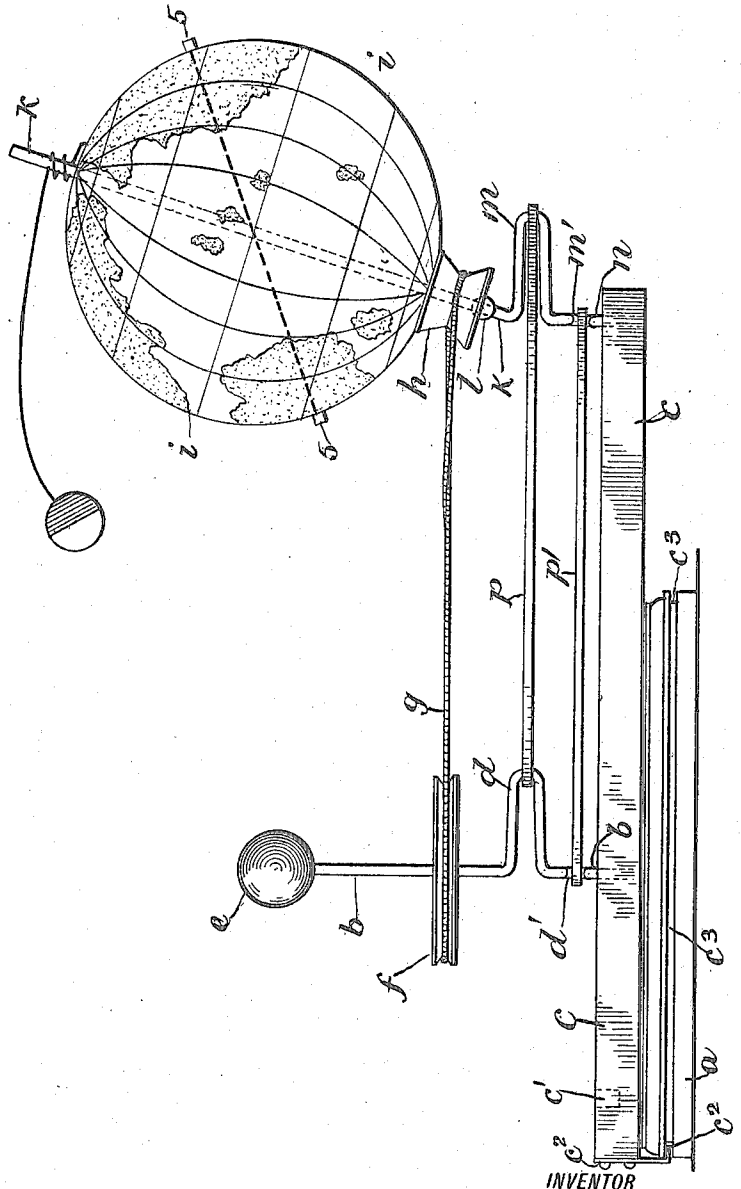


Fig. 1.

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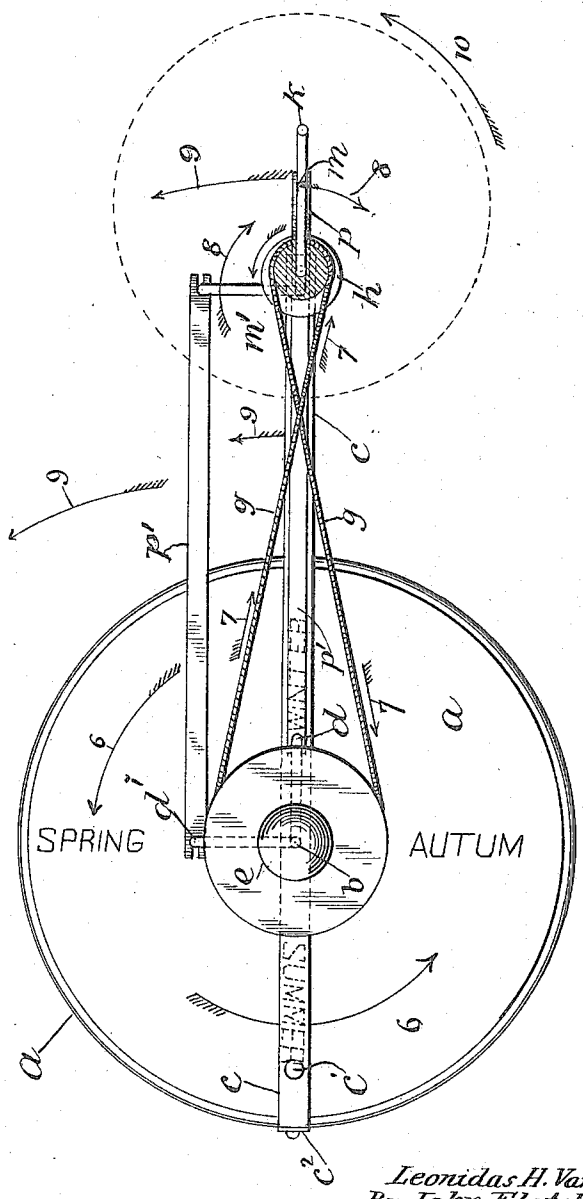
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Fig. 2



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UNITED STATES PATENT OFFICE.

LEONIDAS H. VAN SYCKLE, DECEASED, LATE OF FORT LEE, NEW JERSEY, BY JOHN FLETCHER CREAMER, EXECUTOR, OF FORT LEE, NEW JERSEY.

TELLURIAN.

1,271,104. Specification of Letters Patent. Patented July 2, 1918.

Application filed October 20, 1917. Serial No. 197,746.

To all whom it may concern:

Be it known that LEONIDAS H. VAN SYCKLE, deceased, late of Fort Lee, in the county of Bergen and State of New Jersey, did invent and produce an Improvement in Tellurians, of which the following is a specification thereof.

The invention relates to tellurians and improvements in the mechanical means which, when operated, will impart a rotative and gyratory movement to a sphere adaptable to rotate upon an inclined axis, and at the same time revolve around a fixed center. The invention is used to instruct children in the various natural phenomena of the solar system, such as the approximate movement of the earth as, rotating on its own axis, it revolves around the sun, thus causing day and night, and the seasons; in the relative position of the planets to the earth and sun; and to illustrate the fixed inclination of the axis of the earth to the plane of the earth's orbit; the fixed general direction in which the axis points and its relative positions to the sun during the earth's revolution.

The construction shown in the patent dated February 23, 1909; No. 913,074 differs materially from that of the invention herein disclosed, as in the former the mechanism was too crude to be reliable when operated. The objections discovered in the former invention are obviated by the invention herein disclosed, which consist of bars horizontally arranged one above the other, each having one end thereof loosely mounted upon fixed devices centrally located on the base of the structure, the laterally extending bars each having their outer end loosely mounted upon revoluble devices integral or otherwise connected with the prolongation of the axis whose extreme lower end is rotatively mounted upon, and near the end, of a movable, radially arranged arm, while the rearward end of said arm is loosely mounted upon the vertically fixed means centrally located, all of which will be fully described and pointed out in the claims.

In the drawings, Figure 1 represents a side elevation of the tellurian complete. In this view is shown the relative position of the horizontally arranged bars and the revolving devices beneath the sphere, and the fixed devices centrally located on the base of the structure.

Fig. 2 is a plan view of Fig. 1. In this view, the sphere is omitted but shown in dotted lines. The pulley fixed to the sphere is shown by transverse section but the axis is shown complete.

Similar letters refer to similar parts throughout the drawings in which the circular shaped base a may be made in any other form and of any material desired, and is provided with a vertical fixed spindle b centrally located thereon. Upon the spindle b is loosely mounted the radial swinging arm c and above this swinging arm c and integral with the spindle are two loops or bends d—d' arranged at right angles to each other and to that of the vertically fixed spindle b, the latter of which also carries the small ball e which I term the sun, below the sun and above the loops or bends d—d' is mounted the non-rotative pulley f which carries the flexible cross belt g and is carried upon the pulley h, secured fixedly to the sphere i, the latter loosely mounted upon the inclined axis k which is provided with the spherical body l adapted to engage with a correspondingly shaped concavity located on the base of the pulley h.

The inclined axis k beneath the pulley h terminates into two loops or bends m m' arranged at right angles to each other and to that of the vertical axis n loosely mounted upon the radial swinging arm c.

The outer portions of the fixed loops or bends d—d' are connected with the revoluble loops or bends m m' by means of the horizontally arranged bars p p' which are loosely mounted thereon.

It will be obvious that the said pulley h is connected with the non-rotatable pulley f mounted upon the centrally fixed spindle b, forming the axis of the radial arm c by means of the crossed flexible belt g. The distance between the non-rotatable pulley f and the pulley h is kept constant by reason of the lower axial center of the pulley f lying in the vertical alinement with the axis k at n, loosely mounted in the radial swinging arm c, thus maintaining at all times the same distance between the driving edges of the non-rotatable pulley f and the inclined pulley h and keeping the tension of the flexible connection constant. The shorter or rearward portion of the radial swinging arm c is provided the hole c' which is used by the instructor to insert his pencil or wand when desirous of operating the device. It

will be obvious that the extreme end of the arm c is provided with the clip c^2, a portion thereof adapted to engage with the annular groove c^3 of the base a of the structure. The projections 5. 5. shown on the sphere i and connected by dotted lines is merely to indicate the antipodes.

When the instructor desires to instruct his pupils in the relative position of the earth to the sun, and the manner of rotating about its own axis while revolving around the sun, he will first place his pencil or wand in the depression c^2 and move the arm c in the direction indicated by the arrow 6, thereby causing the flexible belt g to travel in the direction indicated by the arrows 7, and the loops m m' move as indicated by the arrows 8. 8.; the bars travel in the direction indicated by the arrows 9. 9., and the sphere i rotates upon the axis k in the direction indicated by the arrow 10.

The upper surface of the base a is divided into four equal parts, representing the four seasons of the year. The longer portion of the radial swinging arm c lies directly over the section or division marked Winter which indicates the starting point from which the radial swinging arm travels in the direction indicated by the arrow toward Spring, and so on until Winter is again reached, when the earth shall have made one complete revolution around the sun.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent, is

1. In a tellurian, the combination consisting of an inclined axis, a revoluble vertical axis supporting said inclined axis and provided with loops integral or otherwise connected therewith, a fixed base, a vertical axis formed with loops secured to said base, and means connecting corresponding loops of the vertical axes.

2. In a tellurian, the combination consisting of an inclined axis, a revoluble vertical axis supporting said inclined axis and provided with loops integral or otherwise connected therewith, a fixed vertical axis formed with loops, connection between corresponding loops on the vertical axes, a globe, a pulley fixedly connected therewith, the globe and pulley being mounted loosely upon the inclined axis aforesaid, and driving means for said pulley.

3. In a tellurian, the combination consisting of an inclined axis, a revoluble vertical axis supporting the same, two revoluble loops secured to the vertical axis and arranged in different horizontal planes at right angles to each other, a fixed vertical axis, loops integral therewith, a swinging arm carrying the aforesaid revoluble axis and parallel bars connecting corresponding loops.

4. In a tellurian, the combination consisting of an inclined axis, a revoluble vertical axis supporting said inclined axis and provided with loops integral therewith, a fixed vertical axis provided with loops, laterally arranged parallel bars loosely connected with said loops, a non-rotatable pulley fixedly mounted on said fixed vertical axis, a globe, and a rotatable pulley secured thereto, both mounted upon the inclined axis, a cross belt connecting said pulleys and an arm pivoted on said fixed axis and carrying said revoluble vertical axis.

Signed at New York city in the county of New York and State of New York this 18th day of October, 1917.

JOHN FLETCHER CREAMER,
Executor of Leonidas Van Syckle, deceased.

Witnesses:
RALPH V. S. MONIFF,
WM. JAHN.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."