

(No Model.)

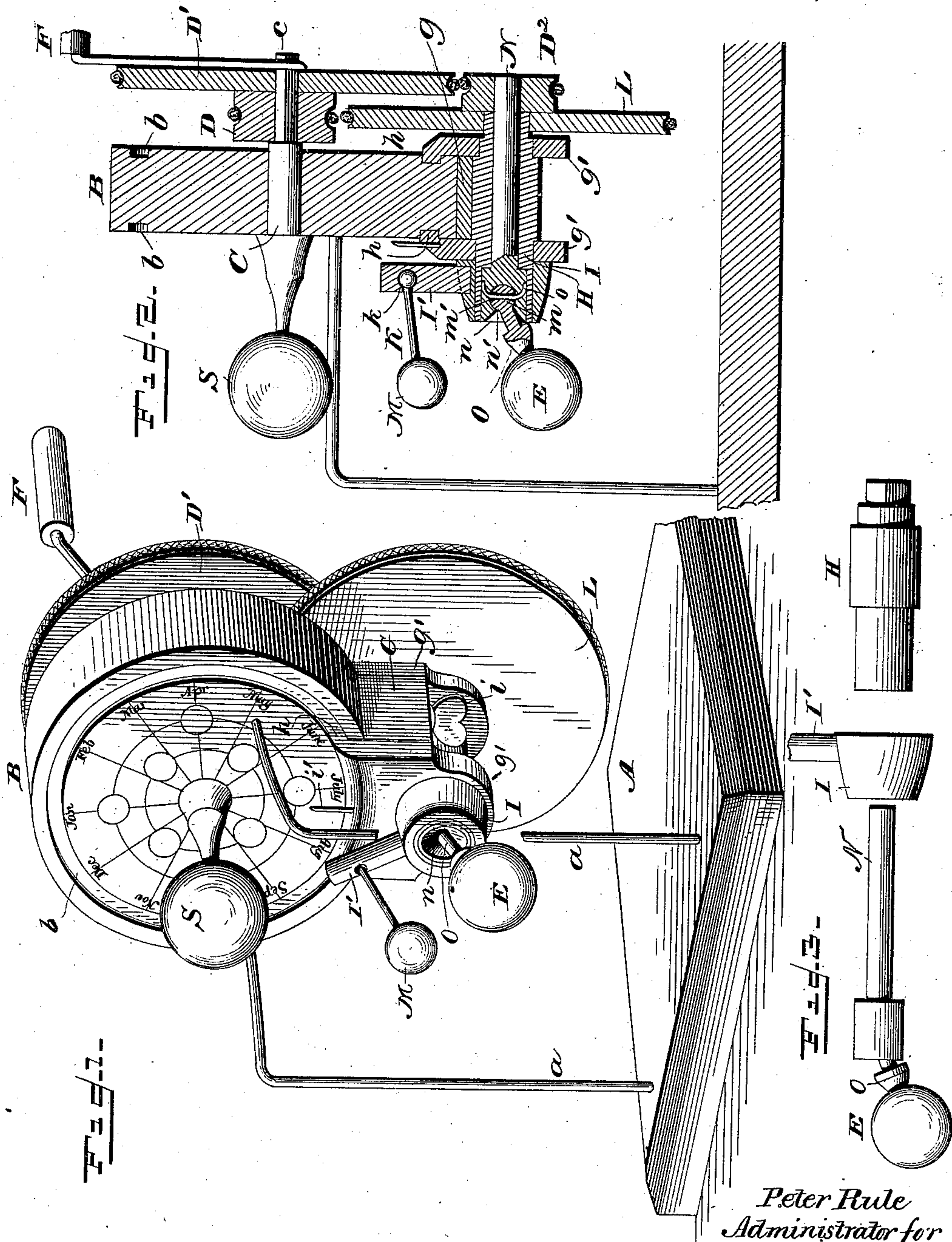
W. VAN MATRE, Dec'd.

P. RULE, Administrator.

TELLURIAN.

No. 357,157.

Patented Feb. 1, 1887.



WITNESSES

G. B. Elliott.
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UNITED STATES PATENT OFFICE.

PETER RULE, OF NOBLE, ILLINOIS, ADMINISTRATOR OF WILLIAM VAN MATRE, DECEASED.

TELLURIAN.

SPECIFICATION forming part of Letters Patent No. 357,157, dated February 1, 1887.

Application filed October 7, 1886. Serial No. 215,600. (No model.)

To all whom it may concern:

Be it known that WILLIAM VAN MATRE, of Noble, in the county of Richland and State of Illinois, did invent certain new and useful
5 Improvements in Tellurians; and I, PETER RULE, a citizen of the United States, residing at the aforesaid place, administrator, hereby declare the following to be a full, true, and exact description of the invention, such as will
10 enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

15 This invention relates to certain new and useful improvements in tellurians; and it consists in certain details of construction, hereinafter described, and specifically pointed out in the claims, as will be more fully explained by
20 reference to the accompanying drawings, in which—

Figure 1 is a perspective view of the improved tellurian. Fig. 2 is a sectional view, and Fig. 3 is a detail view.

25 A represents the base, from which project standards *a a*, the upper ends of which are bent horizontally, where they are secured rigidly to a disk, B. The disk B is provided on each side with circumferential grooves *b b*, and
30 centrally with an opening, through which passes a portion of the shaft C, said shaft carrying at its outer end a sphere, S, which is intended as a representation of the sun. The side of the disk B adjacent to the sphere S has
35 marked thereon the months, and, if desirable, the signs of the zodiac may also be placed thereon. The orbits and relative positions of the planets Venus and Mercury may also be shown on the face of the disk, the positions
40 occupied by said indicative marks or emblems being concentric with the shaft C. The shaft C has its end *c* key-ended, and to the same is secured grooved pulleys D and D', which are of different diameters. The end of the shaft
45 C has attached thereto a crank-handle, F.

G refers to a movable block, which consists of a central portion, *g*, which lies adjacent to the edge of the disk B. To this portion *g* are rigidly attached side pieces, *g'*, which are provided with central openings, through which
50 pass a sleeve, H, the inner ends of these side

pieces, *g'*, being provided with inturned ends *h*, which will lie within the circumferential grooves or recesses *b*, and thereby hold the block securely, though movably, upon the
55 disk. The block G is provided at one side of the sleeve H with a set-screw, *i*, which passes through the same, so that said block can be adjusted to any point desired upon the disk B.

i' refers to a pointer or finger attached to
60 the block.

The front or forward end of the sleeve which projects beyond the side piece, *g'*, which carries the finger *i'*, has an enlarged head, I, rigidly secured thereto, and from the same pro-
65 jects an arm, I', which is provided with a socket, *k*, for the reception of a ball attached to the inner end of the arm K, which arm has secured thereto a sphere, M, which represents the moon. The opposite end of the sleeve H
70 has attached thereto a grooved pulley, L, which is connected by a belt which is crossed to the pulley D, which is secured to the shaft C.

The outer end of the sleeve H is recessed for the reception of an enlarged end of a shaft,
75 N, said shaft at its outer end being provided with a countersink, *n*, and a socket, *n'*, said socket being for the reception of a ball, *m*, which is provided with a transverse perforation, *m'*, which perforation converges toward the cen-
80 ter, as shown in Fig. 2. Through this perforation passes a pin or staple, *o*, which will permit the ball on the end of the shaft O to oscillate. The outer end of this shaft carries a sphere, E, which represents the earth. The
85 opposite end of the shaft N has attached thereto a grooved pulley, D', over which passes a crossed cord or pulley which connects the same with the pulley D.

To show the relative positions of the sun, 90 moon, and earth to each other at any season, the block is adjusted upon the disk B so that the finger or pointer *i'* will be opposite the month indicated thereon. By turning the crank-handle the proper motion will be given
95 to the spheres S, M, and E. It will be noted that the sun or sphere S will occupy the same position, and while the handle is being turned the shaft carrying the earth will also be turned. The shafts K and O, being loosely secured, 100 will be brought to their relative positions by gravity.

The sphere is mounted upon its shaft, which turns loosely in the end of the sleeve, so that it will incline so as to be at the proper angle therewith. The proportionate diameters of the pulleys are such that the sleeve to which the earth is attached will rotate in the proportion of thirteen and one-half to one, thus bringing the spheres into proper position while compensating for the advanced position of the earth in its movement around the sun.

The device hereinbefore described has but little mechanism, and is simple in construction, and can be advantageously employed for illustrating the movements of the heavenly bodies.

I am aware that patents have been issued for devices for illustrating the position and movements of the earth, moon, and sun, as well as the planets, such devices being known as "terraspheres," "planetariums," and "oreries," and I therefore do not claim such devices, broadly, limiting myself to the special construction and organization of the parts.

I claim—

1. In a device for illustrating the movements of the heavenly bodies, a disk, B, suitably mounted upon a frame and provided with circumferential grooves, a shaft, C, carrying a

sphere at its outer end and extending through said disk, the opposite end being provided with pulleys, as shown, in combination with a movable block attached to the periphery of the disk and provided with a central shaft which is encircled by a sleeve, said shaft and sleeve having movably attached thereto arms carrying spheres representing the moon and earth, and pulleys attached to said sleeve and central shaft and connected to the pulleys attached to the shaft C, the parts being organized substantially as shown.

2. In a tellurian, the combination of a stationary disk, B, suitably supported on a stand and provided with peripheral recesses, a movable block, G, adapted to be adjusted thereon, said block carrying an independent rotating shaft and sleeve, and means for rotating said shaft and sleeve, substantially as shown, and for the purpose set forth.

In testimony whereof I hereunto subscribe my name.

PETER RULE,

Administrator of William Van Matre, deceased.

Witnesses:

JOHN VON GUNTEN, Jr.,
WILLIAM H. BROWN.