M. FLORENZ.

SELF LEVELING TABLE.

APPLICATION FILED APR. 9, 1910.

969,614. Patented Sept. 6, 1910.

Fig. 1.

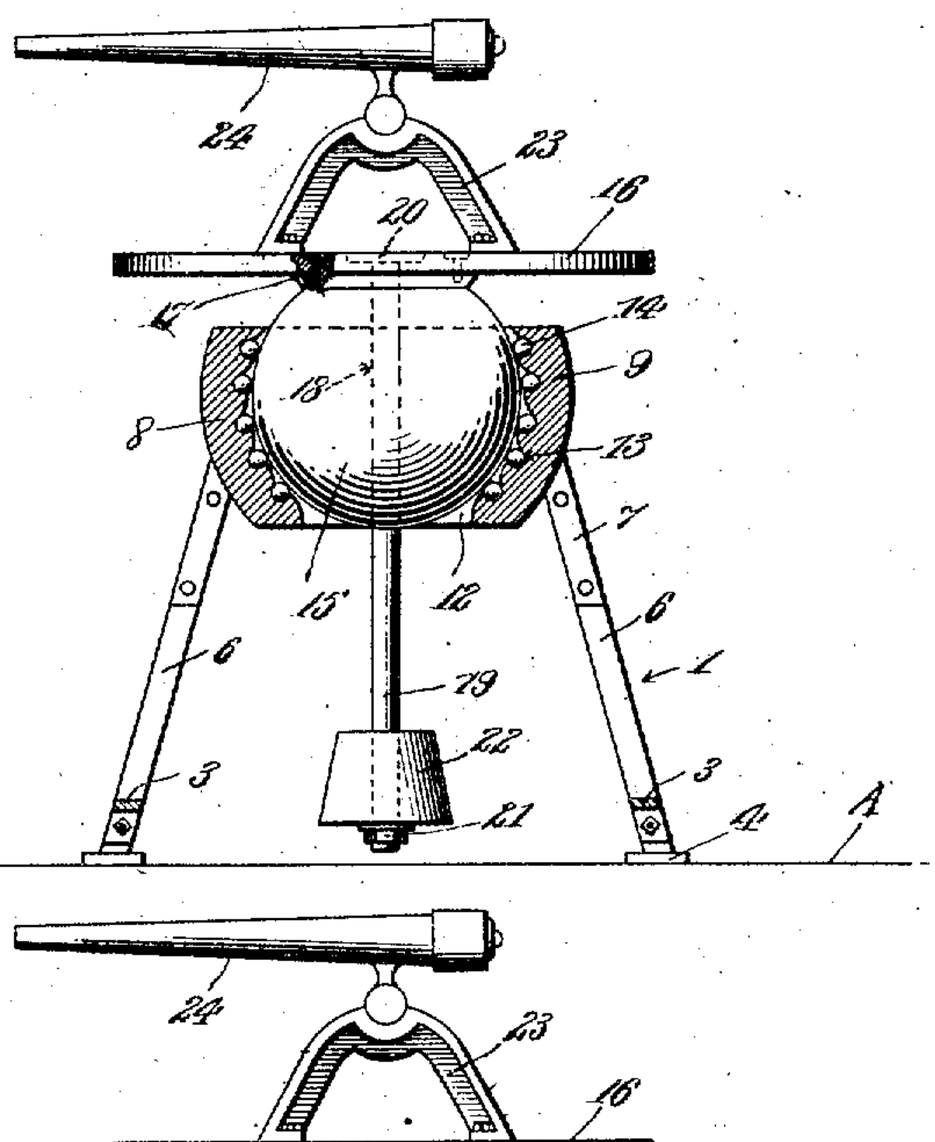


Fig. 2.

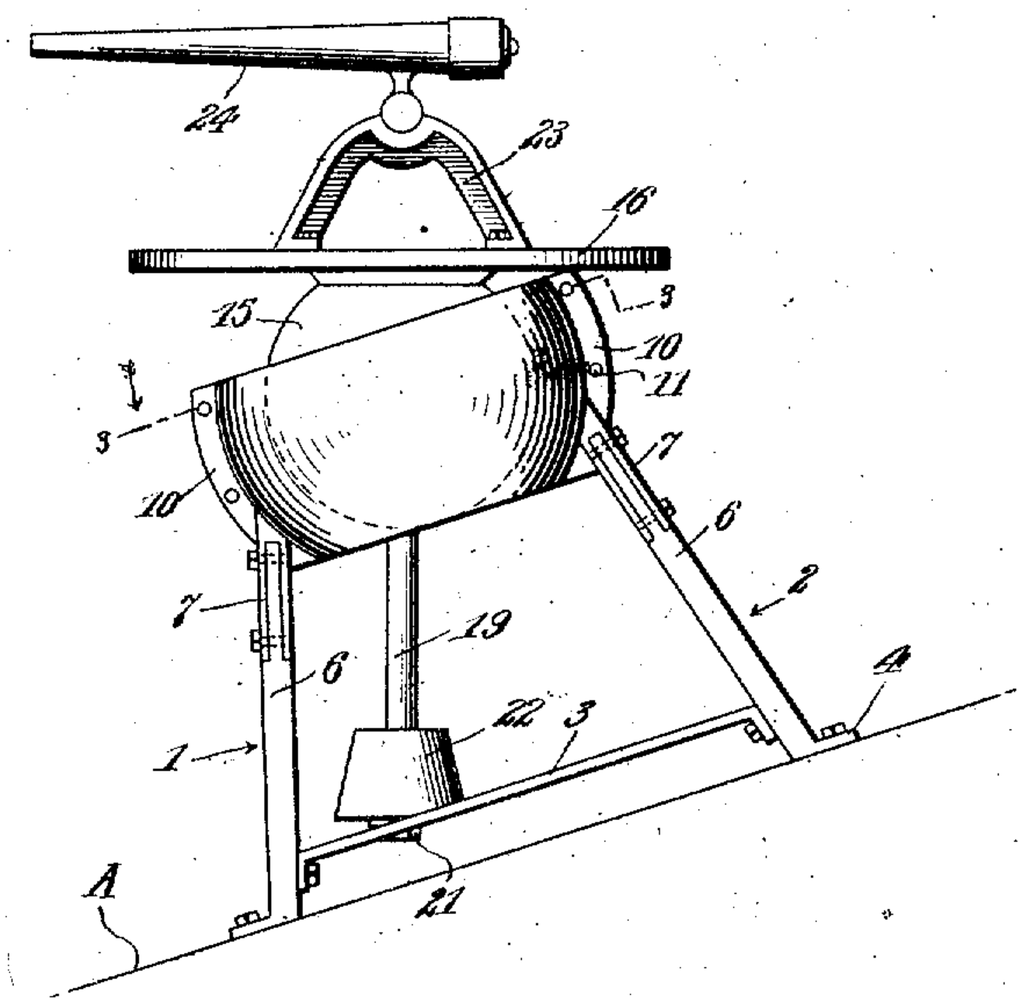
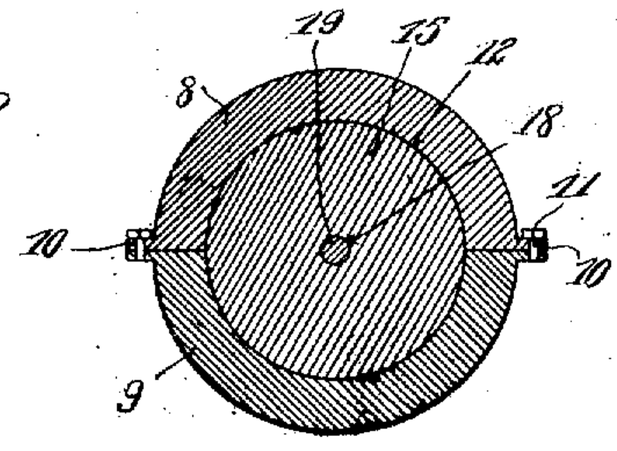


Fig. 3.



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SELF-LEVELING TABLE.

969,614. Specification of Letters Patent. Patented Sept. 6, 1910.

Application filed April 9, 1910. Serial No. 554,413.

To all whom it may concern:

Be it known that I, MATTHIAS FLORENZ, a citizen of the United States of America, residing at Lawrence, in the county of Essex and State of Massachusetts, have invented new and useful Improvements in Self-Leveling Tables, of which the following is a specification.

This invention relates to self-leveling tables, and has for an object to provide a structure wherein positive means are employed for maintaining a constant level of the table top regardless of the inclination of the support for the table.

In the drawing, forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views:—Figure 1 is a sectional elevation of my improved table. Fig. 2 is a side elevation showing the support for the table at an inclination to the table top. Fig. 3 is a horizontal section taken on the line 3—3 of Fig. 2.

My improved table is designed particularly for use upon ocean liners or other movable vehicles, and as illustrated, the said table consists of the companion frames 1 and 2 which are connected with each other by brace members 3. The frames 1 and 2 are formed to provide feet 4 which may be bolted or otherwise suitably secured to the support A. The frames 1 and 2 are each provided with a pair of upwardly extending arms 6 which receive the depending pairs of arms 7 upon companion members 8 and 9. These companion members are formed to provide flanges 10 with which are engaged clamping devices 11. These members are formed to provide a substantially semi-spherical passage 12 whose walls are formed to provide runways 13 for the antifriction bodies 14. These runways are disposed substantially in superimposed relation and they are so constructed that the balls in one runway are out of contact with the balls in the adjacent runway, obviating mutilation to the balls and preventing the device from becoming inoperative. These antifriction bodies extend into the passage 12 for a slight distance to support the spherical head member 15 secured to and depending from the table top 16, suitable fastening devices 17 being employed for securing the table top to the top of the spherical member 15.

The spherical member is formed to provide a vertical passage 18 through which extends a rod 19. This rod is provided at its upper end with a flange 20 which is countersunk in the table top at the center thereof. The rod is threaded at its lower end for the reception of a nut 21 which is located directly beneath a counterbalancing weight 22 on the rod, the said weight being provided for the purpose of holding the table top perfectly level regardless of the inclination of the support A.

The table herein described may be used as an ordinary table upon ocean liners or the like, but as illustrated, the top supports a carriage 23 on which is mounted a gun 24, it being the particular object of the invention to provide novel and positive means for holding the gun perfectly level regardless of the inclination of the support A indicated and may represent the deck of a ship.

Incident to the peculiar arrangement and combination of devices the table 16 can be located horizontally to enable the gunner to obtain any desired position of the gun.

I claim:

1. A self-leveling table comprising companion frames, companion members supported by the frames and formed to provide a substantially spherical passage, antifriction bodies, the said members having their walls formed to provide circular runways which are arranged substantially in superimposed relation, the said antifriction bodies being mounted in the said runways and those of one series being out of contact with those of the other series through the arrangement of such runways, a substantially spherical member bearing against the said antifriction bodies and extending entirely into the said passage formed by the companion members, a table top supported by the spherical member, a rod extending through the top and through the spherical member, and a weight carried by the rod.

2. In a self-leveling table, a member having a substantially spherical passage therein, the said passage having its walls formed to

provide spaced annular runways, antifriction bodies mounted in the runways, a substantially spherical member mounted in the passage of the said first member, a table top supported by the said substantially spherical member, a rod supported by the top and extending through the said substantially spherical member, and a weight supported by the rod and located thereon at a point beneath the said substantially spherical member.

In testimony whereof I affix my signature in presence of two witnesses.

MATTHIAS FLORENZ.

Witnesses:
JOHN KLEIN,
ANTON WENZO.