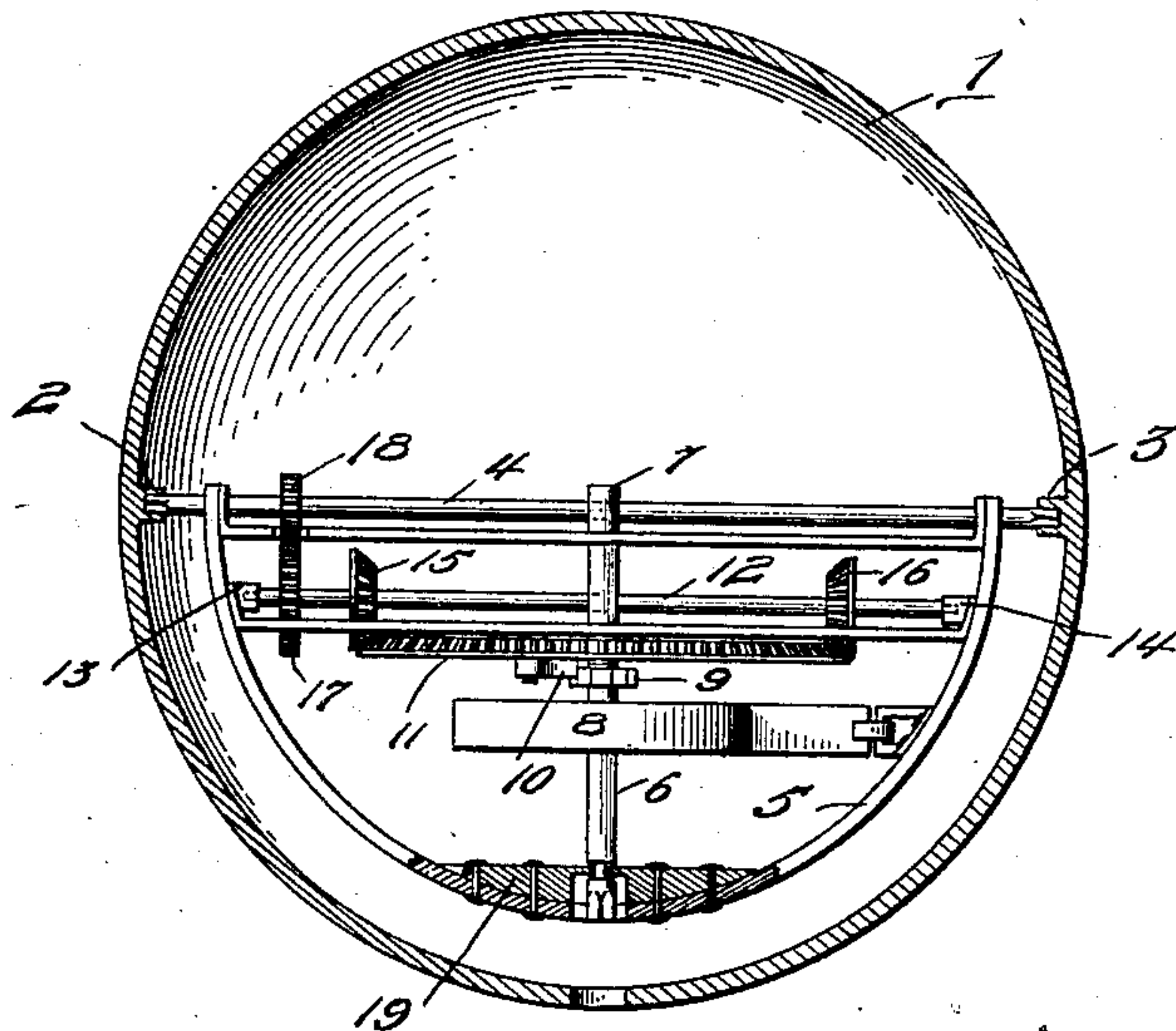


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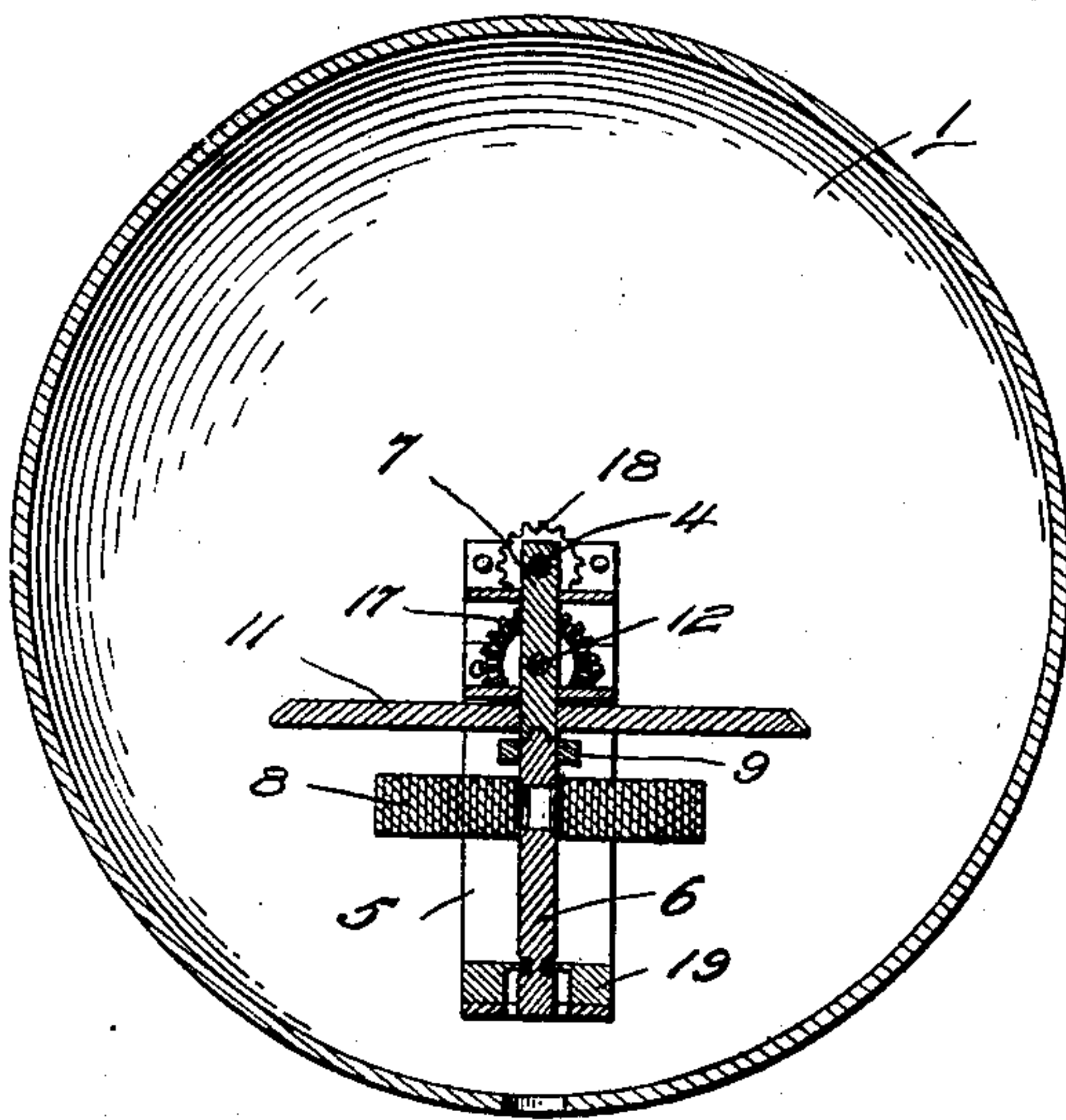
PATENTED SEPT. 8, 1908.

A. L. DAY.  
SELF ROLLING BALL OR GLOBE.  
APPLICATION FILED JAN. 9, 1908.

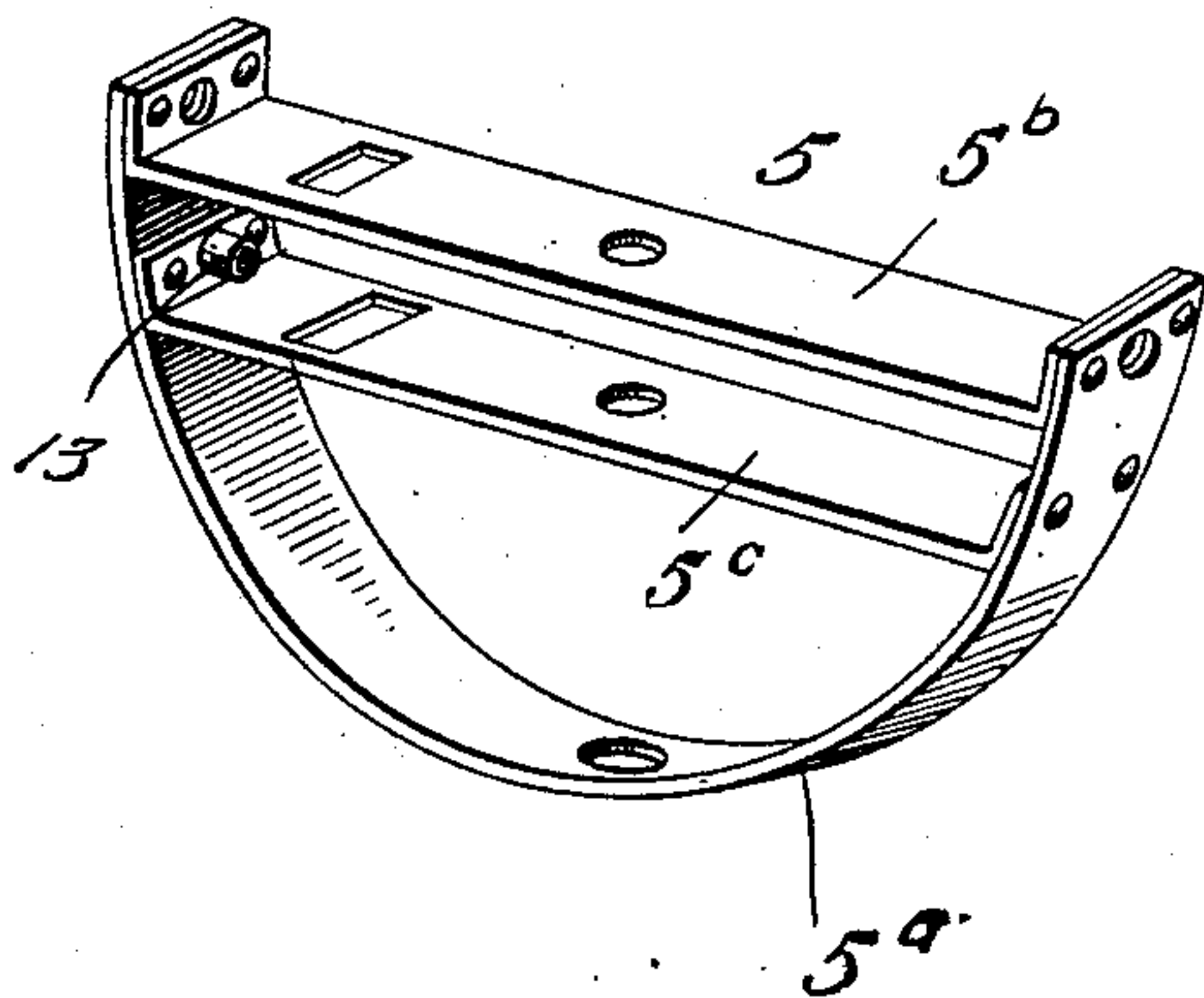
*Fig. 1.*



*Fig. 3.*



*Fig. 2.*



Witnesses

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# UNITED STATES PATENT OFFICE.

ALBERTO L. DAY, OF WESLEY, MAINE.

## SELF-ROLLING BALL OR GLOBE.

No. 898,334.

Specification of Letters Patent.

Patented Sept. 8, 1908.

Application filed January 9, 1908. Serial No. 409,971.

*To all whom it may concern:*

Be it known that I, ALBERTO L. DAY, a citizen of the United States, residing at Wesley, in the county of Washington and State of Maine, have invented certain new and useful Improvements in Self-Rolling Balls or Globes; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a self-rolling ball or globe.

The object of the invention is to provide means within a ball or cylinder for propelling it and which is especially adapted for use in a toy.

In the accompanying drawings,—Figure 1 represents a sectional view of the ball with the operating mechanism shown in elevation. Fig. 2 represents a perspective view of the swinging power supporting frame detached. Fig. 3 represents a vertical section taken at right angles to Fig. 1.

In the embodiment illustrated a ball 1 is shown having disposed therein at diametrically opposite points blocks 2 and 3 in which is fixedly mounted a shaft 4 which forms the axis of the ball. Suspended from this shaft 4 is a swinging frame 5 preferably comprising a U-shaped member 5<sup>a</sup> with its ends connected by vertically spaced cross bars 5<sup>b</sup> and 5<sup>c</sup> and loosely mounted on said shaft 4 preferably near its ends, said member 5<sup>a</sup> being concentric with the inner face of the ball 1.

An upright 6 is supported centrally within the frame 5 one end being revolubly mounted in a post 7 carried by a shaft 4 and its other end in the frame member 5<sup>a</sup>.

A coil spring 8 is secured at one end to the upright 6 and has its other end attached to the frame member 5<sup>a</sup> and is adapted to be wound by a key (not shown) which engages the end mounted in the member 5<sup>a</sup>. A ratchet wheel 9 is fixed to said upright 6 and is engaged by a pawl 10 mounted on the lower face of a main bevel gear 11. A revoluble shaft 12 arranged parallel with the shaft 4 passes through the post 7 and is mounted in bearings 13 and 14 in the member 5<sup>a</sup>.

Bevel pinions 15 and 16 are carried by the shaft 12 and mesh with the bevel gear 11 at diametrically opposite points. A gear wheel 17 on the shaft 12 meshes with a pinion 18 on the shaft 4 and imparts motion to said shaft which latter being fixed to the ball causes it to revolve therewith. A weight 19 is secured to the center of the member 5<sup>a</sup> and is designed to keep the frame always in operative position.

In the use of this device after the spring 8 is wound the power thereof causes the upright or arbor 6 to turn and through the gear 9 and pawl 10 imparts motion to the main gear 11 from which motion is imparted to the shaft 12 through the pinion 16 and through the gears 17 and 18 to the shaft 4 which being fixed to the ball 1 causes it to revolve with it.

Pinion 15 runs on loose shaft 12, and the main beveled gear 11 is guided by the same.

I claim as my invention—

A self rolling ball having a shaft passing through the center thereof and fixed at diametrically opposite points to the inner face of said ball, a post carried by said shaft, a U-shaped swinging member loosely mounted on said shaft and connected at its ends by vertically spaced cross bars, a revoluble upright mounted at one end in said U-shaped member and at its other end in said post, a coiled spring fixed at one end to said upright and at its other end to said U-shaped member, a ratchet on said upright, a beveled gear wheel on said post having a pawl for engagement with said ratchet, a rotary shaft mounted in said U-shaped member and having longitudinally spaced beveled pinions for engagement with said gear wheel, a pinion carried by said rotary shaft, and a pinion fixed to said first mentioned shaft and meshing with the pinion on said rotary shaft.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

ALBERTO L. DAY.

Witnesses:

EVA M. RICHARDSON,  
KERL W. DAY.