(No Model.)

J. S. BOYUM.

SPINNING TOP.

No. 547,764. Patented Oct. 15, 1895.

Fig. 1.

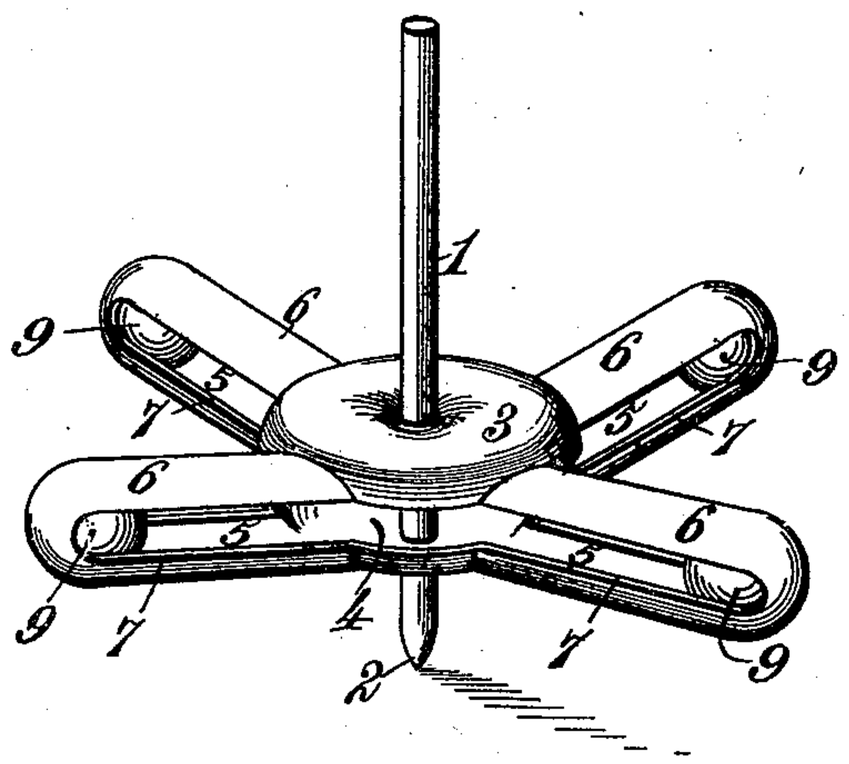


Fig. 2.

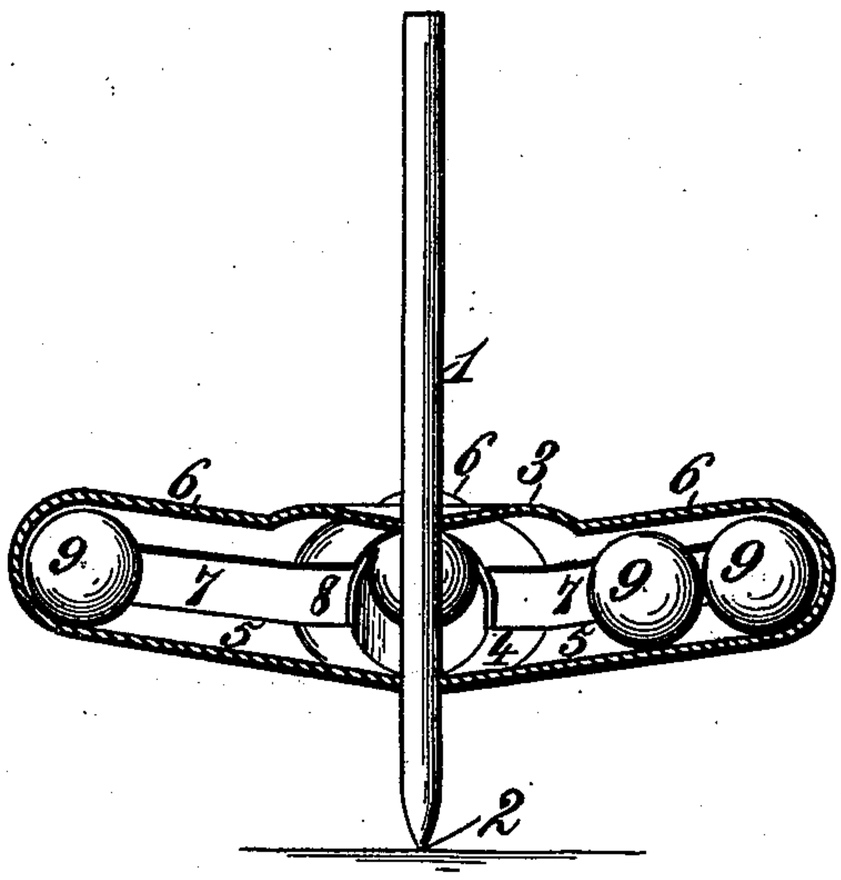
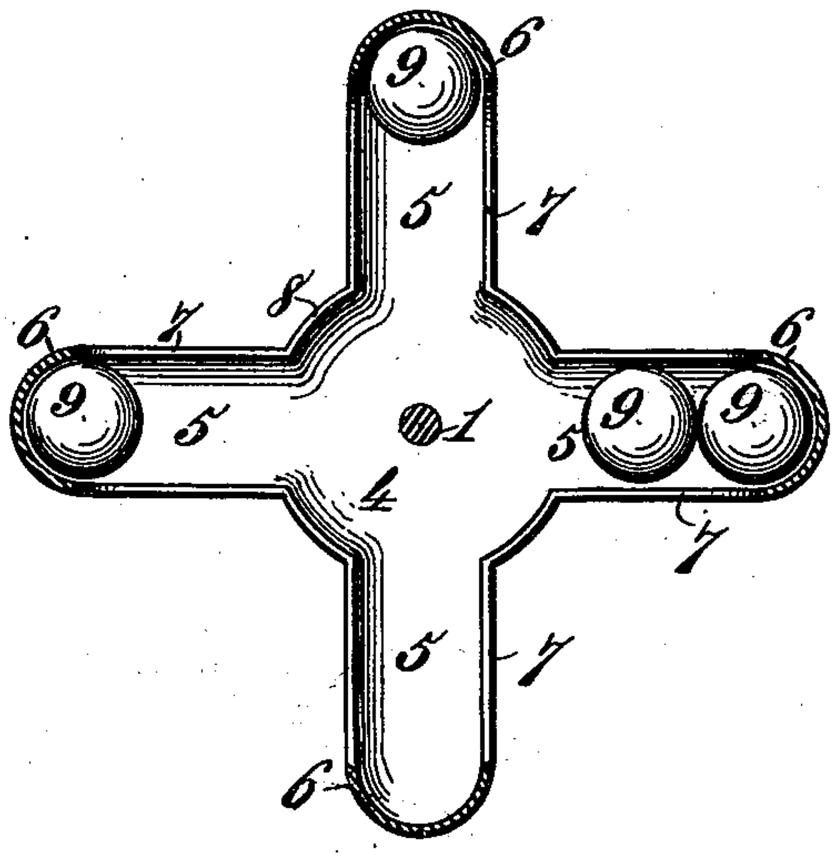


Fig. 3.



Witnesses.
Robert Everett.
Wilbur Stoddard

Inventor:
John S. Boyum.
By James L. Norris.
Atty.

UNITED STATES PATENT OFFICE.

JOHN S. BOYUM, OF MAYVILLE, NORTH DAKOTA.

SPINNING-TOP.

SPECIFICATION forming part of Letters Patent No. 547,764, dated October 15, 1895.

Application filed July 22, 1895. Serial No. 556,743. (No model.)

To all whom it may concern:

Be it known that I, JOHN S. BOYUM, a citizen of the United States, residing at Mayville, in the county of Traill and State of North Dakota, have invented new and useful Improvements in Spinning-Tops, of which the following is a specification.

This invention has for its object to provide a new and improved spinning-top, which involves a puzzle and can only be operated successfully by certain dexterity in manipulation, which is simple when once discovered or explained.

To this end my invention consists of a top formed of a spindle having a spinning-point and provided with a central hollow body having side sight-openings and a plurality of radiating hollow arms having sight-openings along their length and communicating with the central hollow top, through the center of which the spindle passes, and from which the bottom walls have an upward inclination, a number of spheres or balls equal to the number of hollow arms being placed in the central top-body, from which they can only escape by passing into the hollow arms, and this can only be accomplished by the action of centrifugal force, so called, which is set up when the top spins, the puzzle being to cause a single ball to pass into each of the radial hollow arms.

The invention is illustrated by the accompanying drawings, in which—

Figure 1 is a perspective view of a spinning-top constructed in accordance with my invention. Fig. 2 is a vertical section taken in the central line or axis of the spindle. Fig. 3 is a horizontal section taken in a plane passing through the central hollow top-body.

In order to enable those skilled in the art to make and use my invention, I will now describe the same in detail, referring to the drawings, wherein—

The numeral 1 indicates the spindle of the top, which, like the other parts, may be of wood, metal, rubber, celluloid, or any other suitable material or composition. The lower end of the spindle is formed into or provided with a spinning-point 2. Upon the spindle 1, at a suitable distance above the spinning-point, is mounted a substantially-circular hollow top-body or housing 3, formed of any suitable material, and forming a chamber 4. From this chamber radiates a plurality of hollow arms 5, separated from each other by equal intervals, and having a slight upward inclination from the top-body. I have shown in the drawings four of these hollow arms; but this number may be varied, if desired. I prefer to form each hollow arm 5 in a single piece 6, as shown in the drawings, as it is an economy of material and diminishes the weight; but I do not strictly limit my invention to such construction. In the sides of each arm 5 are formed sight-openings or slots 7, which communicate with sight-openings or slots 8 of like width in the outer wall of the central top-body or housing 3.

Within the chamber 4 of the hollow top-body are placed balls or spheres 9, their number being equal to the number of radial arms, and their size such that they will roll freely in said chamber and in the radial arms. The balls or spheres will be readily seen through the sight-openings or slots 7 and 8, in whatever position they may be. Normally, when the top is placed horizontally, with its spindle 1 in a vertical line, the balls will roll into the circular chamber and lie grouped around the spindle, where they are visible through the sight-openings 8. If the top spins with sufficient force they will simultaneously seek a position more or less remote from the center, and will pass into the hollow arms 5, rolling to the outer ends thereof, which are closed to prevent their escape therefrom.

The puzzle is to spin the top as to cause all the radial arms to be occupied, a single ball lying in each. Practice and the exercise of proper care to keep the top level and to spin it with suitable force will soon accomplish this, although at the outset it is extremely difficult.

I may construct the radial arms and the floor of the circular chamber 4 in a single piece by using such material and processes of manufacture as will suggest themselves to all persons who are familiar with mechanical construction, and which need not therefore be described in this specification.

The top may be ornamented by coloring or painting it, or if formed of metal it may be polished or burnished, plated, or otherwise finished in any manner preferred.

Having thus described my invention, what I claim is—

1. A spinning-top, consisting of a spindle, a hollow top-body mounted on the spindle and provided with a plurality of radiating hollow arms communicating with the inner ends of the hollow top-body and having sight openings between their ends, and a plurality of balls or spheres arranged in the chamber and susceptible of escaping therefrom and rolling longitudinally along the radiating arms, substantially as described.

2. A spinning-top, consisting of a spindle having a spinning point, a hollow top-body mounted on the spindle above the spinning point and provided with a plurality of radiating hollow arms inclining upwardly from the top-body and provided with sight openings between their ends, and a plurality of balls or spheres arranged in the hollow top-body and susceptible of escaping therefrom and rolling longitudinally along the radiating hollow arms, substantially as described.

3. A spinning-top, consisting of a spindle having a spinning point, a hollow top-body rigidly mounted on the spindle above the spinning point and provided with sight openings and a plurality of radiating hollow arms inclining upwardly from the hollow-top-body, having sight openings along their length and closed at their outer ends, and a plurality of balls or spheres arranged in the hollow top-body and susceptible of escaping therefrom and rolling longitudinally along the radiating hollow arms, substantially as described.

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

JOHN S. BOYUM.

Witnesses:
O. F. HOFLAND,
W. C. POULSSON.