M. L. HAWKS.

GYROSCOPIC TOP.

APPLICATION FILED NOV. 20, 1908.

918,545. Patented Apr. 20, 1909.

Fig. 1.

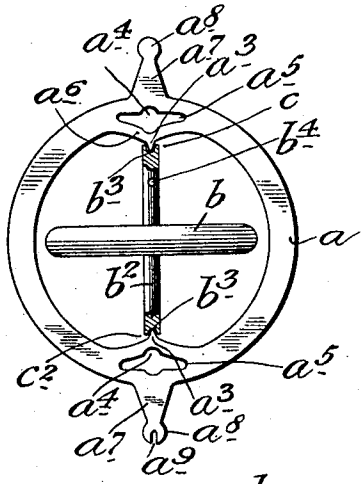


Fig. 2.

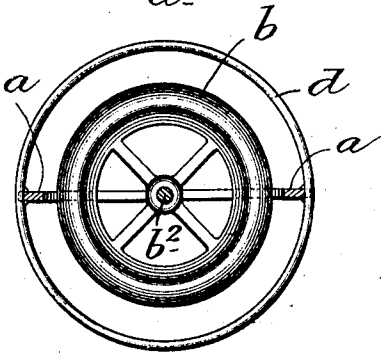
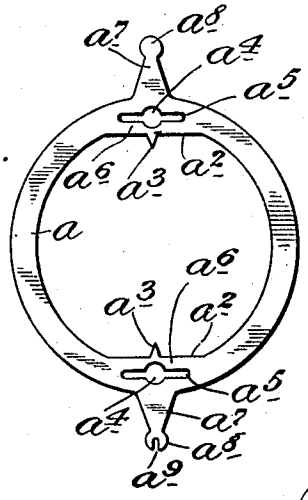


Fig. 3.



WITNESSES

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GYROSCOPIC TOP.

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To all whom it may concern:

Be it known that I, MOSES L. HAWKS, a citizen of the United States, and residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Gyroscopic Tops, of which the following is a specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to gyroscopic tops and particularly to the construction of devices of this class; and the object of the invention is to simplify this construction so as to render the same comparatively inexpensive and more durable.

The invention is fully disclosed in the following specification, of which the accompanying drawing forms a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which;—

Figure 1 is a side view of a gyroscopic top made according to my invention, part of the construction being in section, Fig. 2 is a sectional view at right angles to that of Fig. 1 and showing a modification with part of the construction in section, and;—Fig. 3 a view similar to that shown in Fig. 1, but showing only one part of the device and one step of the process of construction.

In the practice of my invention, I provide a ring a which is stamped from sheet metal, and said ring is shown in its primary form in Fig. 3. The ring a is provided at its opposite sides with parallel faces a^2 centrally of which are formed inwardly directed pivot points a^3, and the parallel faces a^2 at the opposite sides of the ring a renders these parts of said ring of greater transverse width than the other parts, and in these parts of the ring are formed circular apertures a^4 having laterally directed extensions a^5 and forming in connection with the apertures a^4 parallel slots or openings inwardly of which are parallel bars a^6 on which the pivot points a^3 are formed, and on the outer faces or edges of the ring a in radial line with the pivot points a^3 and the apertures a^4 are formed projections a^7 having knobs or heads a^8, and one of these knobs or heads is preferably provided with a transverse slot or recess a^9 which is also in radial line with the pivot points a^3, the apertures a^4 and the projections a^7. I also employ the usual rotary ring b which is rigidly secured to or formed in connection with an axle b^2, the ends of which are provided with conical recesses b^3 adapted to receive the inwardly directed pivot points a^3 on the ring a as clearly shown in Fig. 1.

In assembling the parts of this device, a suitable support is provided for the ring a, and the ring b is so held that the axle b^2 is in direct line with the pivot points a^3 and the bars a^6 are bent inwardly by any suitable tool or device so that the pivot points a^3 will enter the recesses b^3 in the ends of the axle b^2 as clearly shown in Fig. 1, and this operation finishes the top and it is ready for use. The axle b^2 is provided at one side of the rotary ring b with an aperture b^4, and in practice a suitable cord is passed through this aperture and the ring b is turned so as to wind the cord on the axle b^2 and the top is spun by holding the ring or band in one hand and pulling the cord off with the other in the usual manner.

In the construction shown in Fig. 2 an outer ring or band d is secured to the ring a centrally of and at right angles thereto, but my invention relates only to the method of forming the ring a and of securing the rotary ring b therein and the outer ring or band d shown in Fig. 2 may or may not be employed.

In spinning the top it is placed on one of the knobs or heads a^8 in any desired position and on any form of a support, and the recess a^9 in one of said knobs or heads is provided so that the top may be stood on a wire or cord which is suitably held or supported for this purpose.

In the accompanying drawing and foregoing description I have shown and described the ring a as provided with a bar a^6 at each side thereof, but it will be apparent that this is not absolutely necessary as the bar a^6 at one side of the ring a will be sufficient, the pivot point a^3 at the opposite side being properly locked in stamping out the ring a.

Having fully described my invention, what I claim as new and desire to secure by Letters Patent, is;—

A gyroscopic top comprising a circular shaped metal frame provided at opposite points with parallel integral bars having inwardly directed and diametrically opposite pivot points formed thereon, a rotary ring or wheel having a fixed axle the ends of which are provided with recesses adapted to receive the said pivot points, at least one of

said bars being capable of being bent inwardly to adjust and secure the said wheel in said frame, said frame also having formed thereon exterior projections in radial line with said pivot points.

In testimony that I claim the foregoing as my invention I have signed my name in presence of the subscribing witnesses this 9th day of November 1908.

MOSES L. HAWKS.

Witnesses:
A. R. APPLEMAN,
C. E. MULREANY.