

M. L. HAWKS.  
GYROSCOPIC TOP.  
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929,669.

Patented Aug. 3, 1909.

Fig. 1.

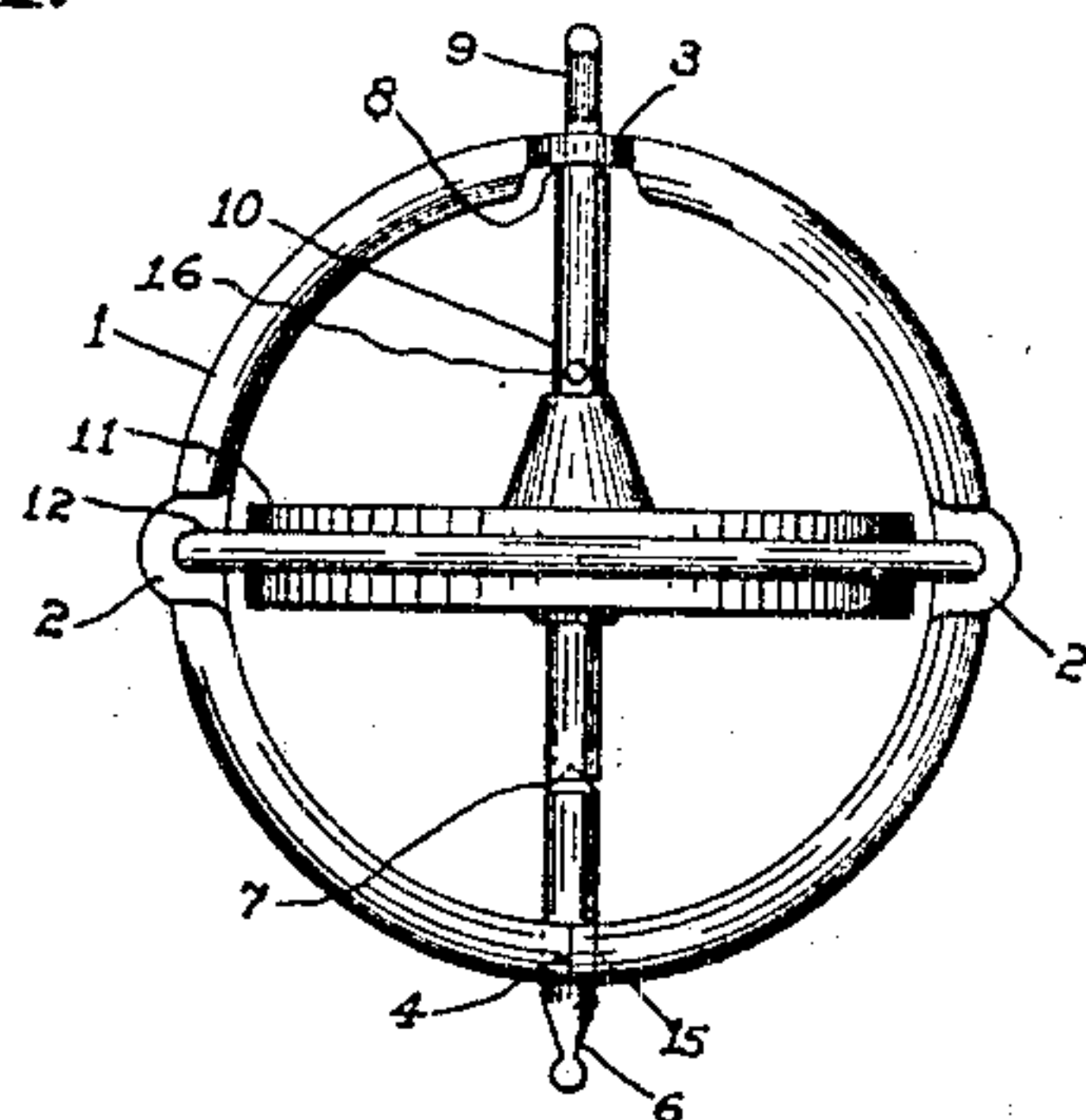


Fig. 2.

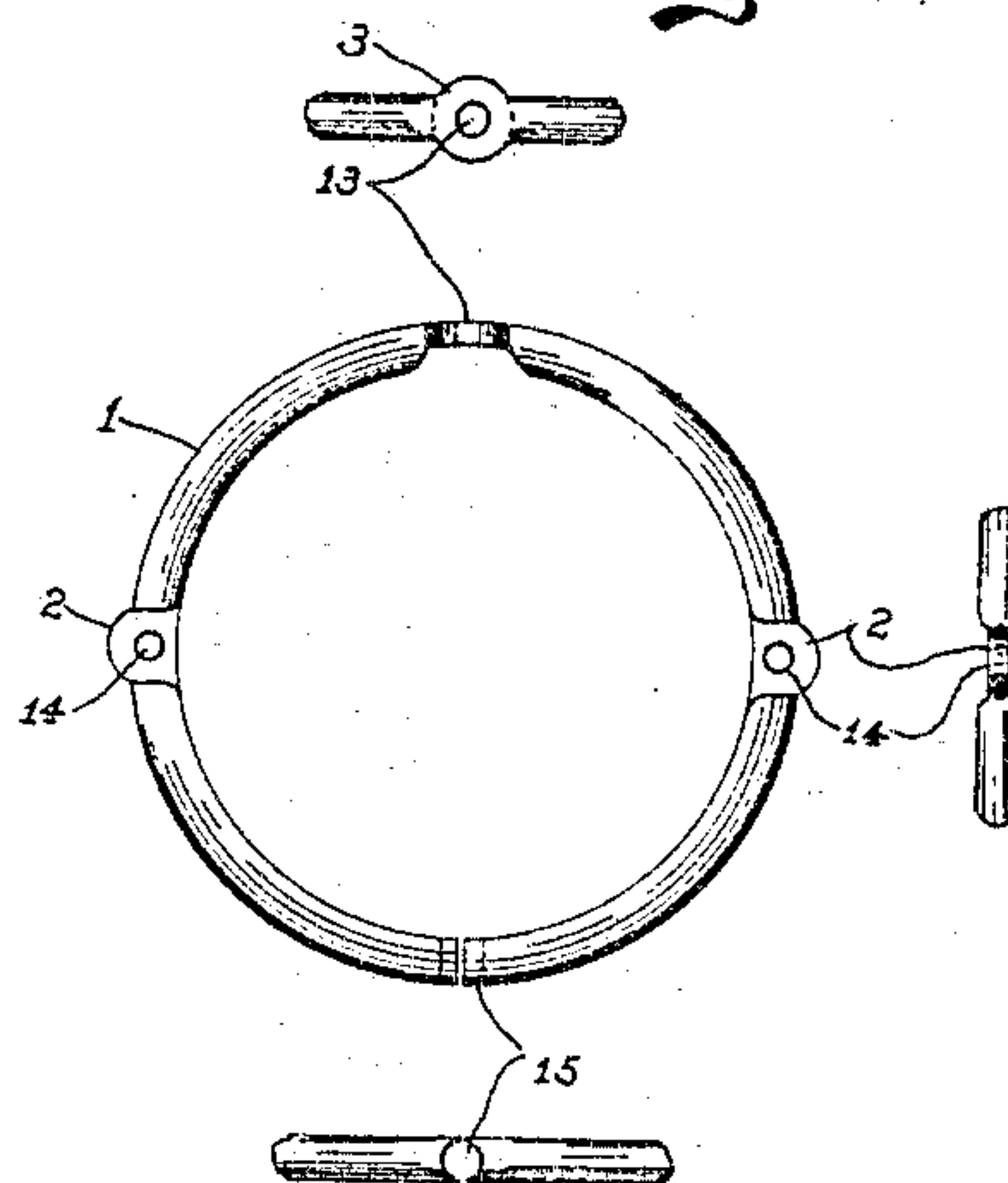
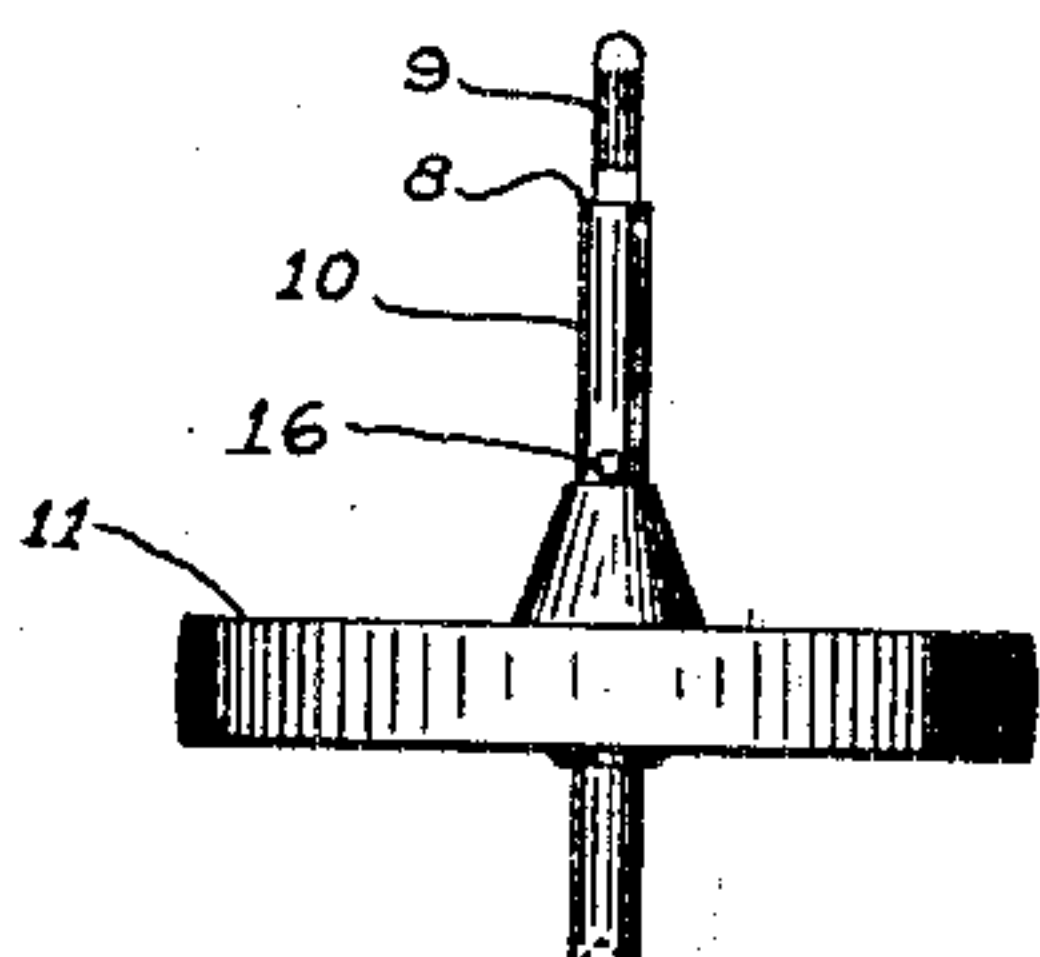


Fig. 3.



Witnesses.

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# UNITED STATES PATENT OFFICE.

MOSES L. HAWKS, OF NEW YORK, N. Y.

## GYROSCOPIC TOP.

No. 929,669.

Specification of Letters Patent.

Patented Aug. 3, 1909.

Application filed March 26, 1909. Serial No. 486,023.

*To all whom it may concern:*

Be it known that I, MOSES L. HAWKS, a citizen of the United States, residing at 335 Broadway, New York, N. Y., have invented certain new and useful Improvements in Gyroscopic Tops, of which the following is a specification.

My invention relates to gyroscopic tops in which two transverse rings secured to each other form a frame for the top; one of the rings carrying the axle and a pivot for the fly wheel, and the objects of my improvement are; first, to provide a gyroscopic top that is rigid, very simple and cheap of construction; and second, to provide an improved means of spinning the top.

I attain these objects by the form and arrangement of parts hereinafter fully set forth, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a gyroscopic top embodying my improvement; Fig. 2 is a plan view and three views of the main ring of the frame in broken section; and Fig. 3 is a side elevation of the fly wheel and axle, of my design, removed from the frame.

Similar numerals refer to similar parts throughout the several views.

The main ring shown in Fig. 2 is preferably formed from a round rod which is flattened and perforated, as shown, at 2 and 3 while the ends of the rod are brought together at 4 through which ends the hole 15 is drilled. Holes 13 and 15 are diametrically opposite each other, as are also the holes 14 in flattened places 2, each of which is one-fourth of the circle from the holes 13

and 15. Through holes 14 and secured therein is the ring 12 which encircles the fly wheel 11 in which axle 10 is secured, the upper end being provided with a spinning stem 9 while the lower portion is drilled to take a pivot 7.

The spinning stem 9 loosely fits hole 13 and the shoulder 8 serves as an end bearing for axle 10, while the other end of the axle is pivoted at 7 on a pivot stem 6 which is adjusted in said hole 15 and the ends of the rod forming the main ring are rigidly secured and the stem 6, extended to constitute a spinning point, is rigidly attached with said ends.

I claim:—

A gyroscopic top, comprising a metal frame consisting of two rings rigidly secured to each other at right angles, one of which is provided with a compressed flattened portion at one side through which is a central perforation and at its opposite side with a short shaft or stem having interior and exterior projections in radial lines with said perforation, the interior end of said stem being provided with a pivot bearing; in combination with a rotary wheel having a fixed shaft, one end of which is provided with a pivot bearing adapted to connect with the inner end of said stem, the opposite end of said wheel shaft projecting through said perforation in said ring; all substantially as described and for the purpose specified.

MOSES L. HAWKS.

Witnesses:

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