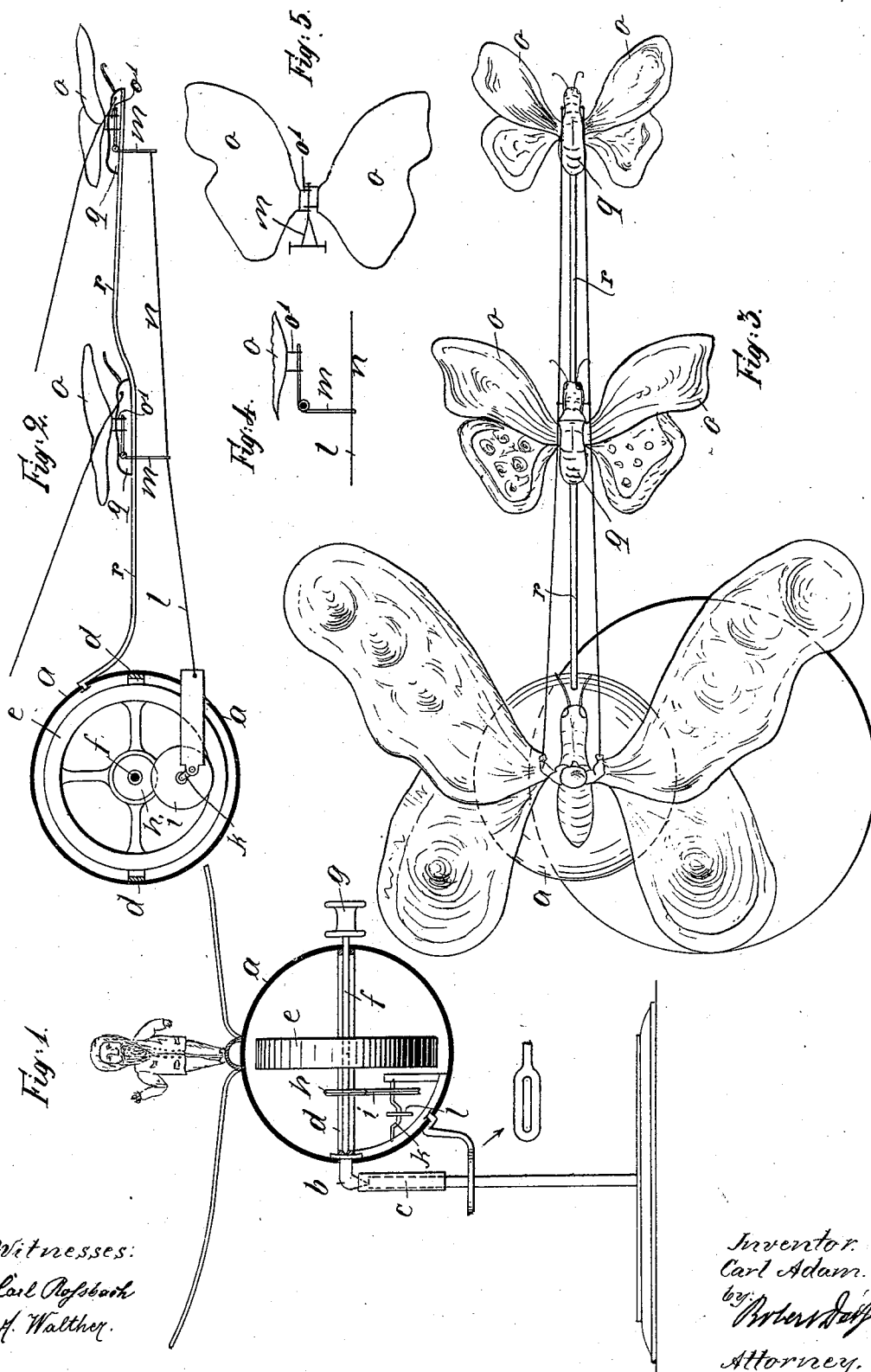


(No Model.)

C. ADAM.
GYROSCOPIC TOY.

No. 510,308.

Patented Dec. 5, 1893.



Witnesses:
Carl Oefsbach
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UNITED STATES PATENT OFFICE.

CARL ADAM, OF KÖNIGSBERG, GERMANY.

GYROSCOPIC TOY.

SPECIFICATION forming part of Letters Patent No. 510,308, dated December 5, 1893.

Application filed May 9, 1893. Serial No. 473,612. (No model.)

To all whom it may concern:

Be it known that I, CARL ADAM, a subject of the King of Prussia, German Emperor, and a resident of Königsberg, in the Kingdom of Prussia, German Empire, have invented a new and useful Gyroscopic Toy, of which the following is an exact specification.

My invention relates to a toy, in which figures are moved by gyroscopic action. These figures may be fixed directly to the frame or hollow ball of the wheel or may be held apart from it by a rod or wire, so as to revolve in either case around the vertical column, by means of which the gyroscope proper is sustained during its revolution. The figures thus moved in their whole, may also get a special movement of their own, *i. e.*, of one or the other part by the rotation of the wheel, with the shaft of which they may be connected in any suitable way.

In order to make my invention more clear, I refer to the accompanying drawings, in which—

Figure 1 is a vertical section through the frame and hollow ball for the hold and reception of the wheel. Fig. 2 is another vertical section through the frame and hollow ball, the wheel being shown in side-view. Fig. 3 is an upper view of the gyroscopic toy. Figs. 4 and 5 are details.

Similar letters denote similar parts throughout the several views.

In Figs. 1 and 2 is shown the hollow ball *a*, carrying in its inner frame *d* the shaft *f* with the gyroscopic wheel *e* and with the small roll *g*, the latter being arranged outside the ball *a* and serving for rapidly rotating the wheel *e* by being wound with a thread which then is quickly drawn off. Opposite to roll *g* the ball has an angular projection *b* by means of which the gyroscope proper may be put on, and held by, the column *c*. Two butterflies *q* with movable wings *o* are secured to the ball

a by a rigid wire *r*, the wings having projections *o'* stretching into the hollow body *q* and being connected there with a bell-crank lever *m* also held within the body of the butterfly. The vertical arms of said levers *m m* are connected to each other by a rod *n* and further by a second rod *l* to a crank *k* within the ball *a*, said crank being rotated from the shaft *f* by gearing wheels *h* and *i*. If, now, the wheel *e* is rotated with a great velocity, and the ball is put on the column, the whole device is held up by the well-known gyroscopic action, by virtue of which at the same time also a slow revolution of the ball around the column is effected. The rotation of the wheel, however, is also employed for moving parts of the figures or limbs of the animals connected with, and held by, the ball, so that seemingly the motion or revolution of the ball is caused by the draft of these animals. This appearance may be increased still more by arranging on the ball a leader as in Figs. 1 and 3, which seemingly directs the animals by reins in the usual way.

Having thus fully described the nature of my invention, what I desire to secure by Letters Patent of the United States is—

In a toy, comprising a gyroscope with vertical fly-wheel and with a standard supporting but one side of the frame holding the shaft of the fly-wheel, the combination with said frame, of one or more figures or objects held by the same, said figures or objects having movable parts adapted to be actuated from the fly-wheel, for the purpose as described.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

CARL ADAM.

Witnesses:

CARL KNOPP,
ARTHUR FEINLAND.