May 8, 1951 H. W. GOOSMANN 2,551,668

BALANCING TOY

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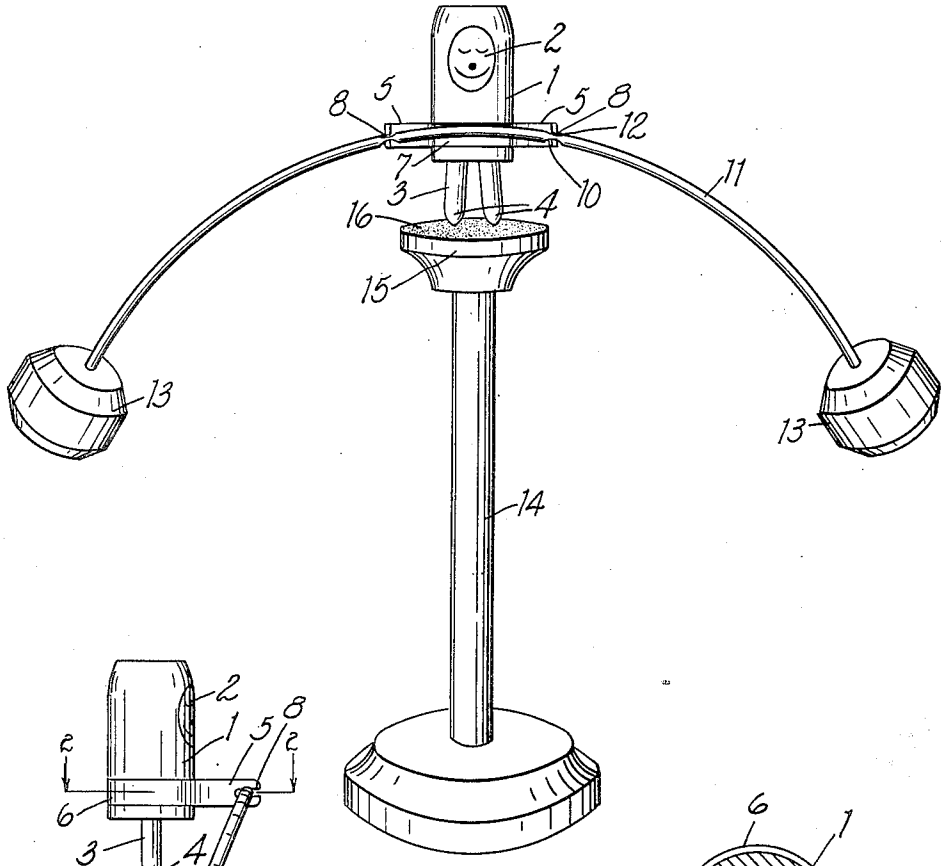



Fig. 1.

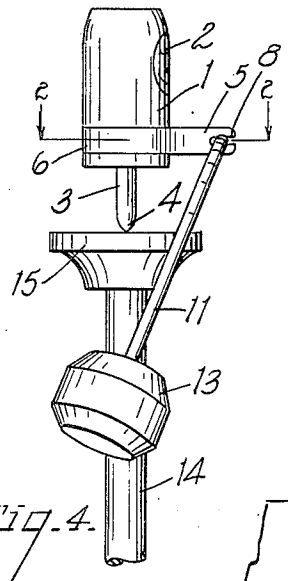



Fig. 4.

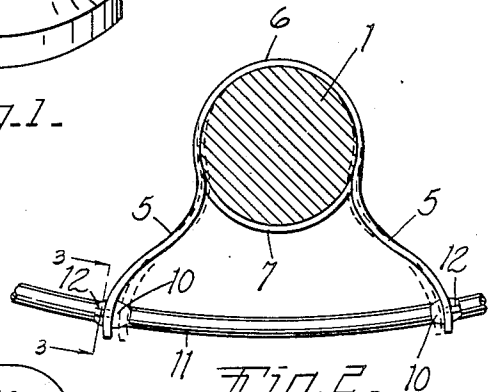



Fig. 2.

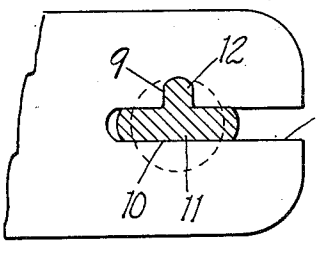



Fig. 3.

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## BALANCING TOY

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5 Claims. (Cl. 46—131)

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This invention relates to improvements in balancing toys.

The main objects of this invention are:

First, to provide a balancing toy which may be set in motion on a relatively restricted surface and move about on such surface with the appearance of a balancing effort and in which the motion may be both a forward and backward and sideward tilting motion and a somewhat rotating or turning motion or movement.

Second, to provide a toy of this character which may be very economically produced and at the same time is of substantial strength.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a front perspective view of the toy of the invention arranged on a pedestal-like support.

Fig. 2 is an enlarged fragmentary cross sectional view along the line 2—2 in Fig. 4, the manner of engaging the arms with the balancing rod being indicated by dotted lines.

Fig. 3 is an enlarged fragmentary view in section on a line corresponding to line 3—3 of Fig. 2.

Fig. 4 is a side elevational view with the toy mounted on the pedestal, the pedestal being partially broken away, illustrating the relationship of the parts.

The toy of the invention comprises a body member 1 which as illustrated is formed generally cylindrical with a face 2 painted thereon. The body is provided with peg-like leg elements 3 disposed in laterally spaced and slightly divergent relation and terminating in pointed tips or ends 4 about either of which the toy may oscillate about an axis extending longitudinally of the toy and an axis extending transversely of the toy.

Forwardly diverging arms 5 are fixedly secured to the body, the arms in the embodiment illustrated being formed of a strip of flat spring stock bent into a loop with the bight portion 6 of the loop embracing and gripping a groove 7 in the body portion.

The arms 5 are provided with longitudinal slots 8 extending from the ends thereof, these slots having vertical branches 9. The slots 8 receive the flattened portions 10 of the balancing rod 11 and the branches 9 receive the ears or lugs 12 which project above the outer half of the flat-

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tened portions. The rod is flattened or upset at the points 10 to such degree and extent that these flattened portions can be forced into the slots in retaining engagement therewith. The same die that forms the flattened portion is relieved to form the lugs 12 and the ends of the arms 5 are sprung together as shown by the dotted lines in Fig. 2 to align the branch notches 9 with the lugs 12.

The balancing rod is upwardly bowed or curved and is of substantial length. The flattened portions 10 and lugs 12 are so disposed on the rod that when the rod is engaged with the arms, the ends of the rod are supported in a rearwardly inclined relation, as best shown in Fig. 4.

The weights 13 are of sufficient weight to effectively counterbalance the other parts and it will be noted that the center of gravity is approximately in the vertical plane of the ends of the legs when the body is in an upright position.

A pedestal-like support 14 is provided, the support having a top 15 of restricted area. The surface of the top is roughened as at 16. The sides of the rod are of such length that the weights fully clear the pedestal or support and also other types of supports on which the toy may be placed, for example, the corner of a table. The balancing rod is nonrotatably secured to the arms by the provision of the flattened portions engaging the slots in the arms and is releasably retained by the lugs 12. The roughened surface 16 is satisfactorily produced by mixing emery or the like with suitable varnish.

It will be noted that the bight portion of the U-shaped arm member has a curved portion springably and retainably embracing the body, the curved portion exceeding 180° so that the body and the arms can be assembled merely by springing the arm member into the groove of the body portion. As the arm member fits into the groove it is supported by the edges of the groove against tilting and this avoids the necessity of any other fastenings.

In use, a rocking movement or a combined rocking and swinging movement may be imparted to the toy which results in the legs of the toy alternately lifting off the top 15 while the toy rocks and turns. This results in the toy walking about or swinging about on the support and with a rocking tilting movement. This substantial movement occurs in a relatively restricted area which gives a very amusing and entertaining movement. Should one leg swing over the edge of the top and tilt down, the toy will reach a balance on the other

leg without falling and if there is enough energy stored in the weights 13 it will rock back and turn and relocate the one leg over the top.

While the toy is quite simple and economical in structure, at the same time it is quite strong and durable. The design of the body may be very materially varied, if desired, but the main attraction of the toy is its balancing action through a wide range of movement.

Having thus described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A balancing toy comprising a body with laterally spaced diverging fixed leg elements terminating in pointed lower ends constituting pivot points about which the toy may oscillate, said body having a groove therearound, forwardly diverging arms formed of a springable U-shaped strap disposed with its bight embracing the body and springably engaged in said groove, said arms having forwardly opening longitudinal slots at the ends thereof and branch slots opening to said longitudinal slots, an upwardly bowed balancing rod of substantial length and curvature having spaced flattened portions retainingly engaged in said slots in said arms and supporting the rod with the ends thereof inclined rearwardly from said arms, said flattened portions having lugs engaged in said branch slots, and balancing weights on the ends of said rod disposed substantially below the ends of the legs when they are in upright position on a support with the center of gravity approximately in the vertical plane of the ends of the legs and with the body in an upright position.

2. A balancing toy comprising a body provided with laterally spaced fixed leg elements terminating in pointed lower ends constituting pivot points about which the toy may oscillate, forwardly diverging arms having forwardly opening longitudinal slots at the ends thereof, branch slots opening to said longitudinal slots, an upwardly bowed balancing rod of substantial length and curvature having spaced flattened portions retainingly engaged in said slots in said arms and supporting the rod with the ends thereof inclined rearwardly from said arms, lugs on said flattened portions engaged in said branch slots, and balancing weights on the ends of said rod disposed substantially below the ends of the legs when they are in upright position on a support with the center of gravity approximately in the vertical plane of the ends of the legs.

3. A balancing toy comprising a body provided with laterally spaced fixed leg elements, forwardly projecting laterally spaced arms on said body having slots at the ends thereof and branch slots opening to the first named slots, a balancing rod of substantial length having flat portions retainingly engaged in the first named slots in said arms and supporting the rod with the ends thereof projecting downwardly and rearwardly from said arms, said flattened portions having lugs disposed adjacent the ends thereof and engaged in said branch slots, and balancing weights on the ends of said rod disposed substantially below the ends of the legs when they are in upright position on a support, the center of gravity being approximately in the vertical plane of the ends of the legs.



4. A balancing toy comprising, a body provided with laterally spaced fixed leg elements, said body having an annular groove adjacent the lower end thereof, forwardly diverging arms formed of a springable U-shaped element having a curved bight portion springably and retainably engaged in the groove of said body portion, the curvature of said bight portion substantially exceeding 180°, the arms diverging outwardly from said curved bight portion and being springable, an upwardly bowed balancing rod of substantial length and curvature having flattened portions provided with projecting lugs at their outer ends, the arms being slotted to frictionally engage the flattened portion and being notched to retainingly engage the said lugs under the springing action of the arms when they are engaged with said flattened portions, and balancing weights on the end portions of said rod disposed below the ends of the legs when they are in an upright position on a balancing support.

5. A balancing toy comprising, a body provided with laterally spaced fixed leg elements, said body having an annular groove adjacent the lower end thereof, forwardly diverging arms formed of a springable U-shaped element having a curved bight portion springably and retainably engaged in the groove of said body portion, the curvature of said bight portion substantially exceeding 180°, the arms diverging outwardly from said curved bight portion and being springable, an upwardly bowed balancing rod of substantial length and curvature connected to said arms, and balancing weights on the end portions of said rod disposed below the ends of the legs when they are in an upright position on a balancing support.

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