March 19, 1963 G. W. MOSHER 3,081,578

SPINNER TOY

Filed Oct. 4, 1960 2 Sheets-Sheet 1

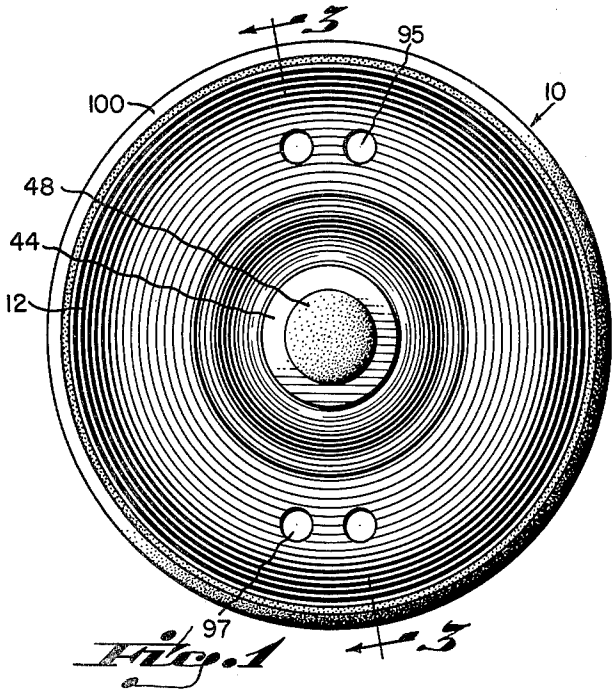


Fig. 1

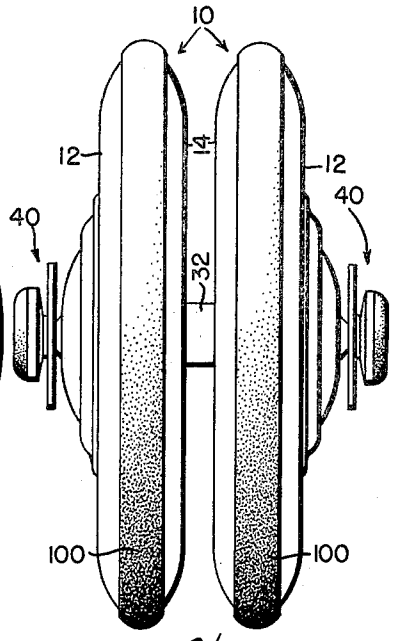


Fig. 2

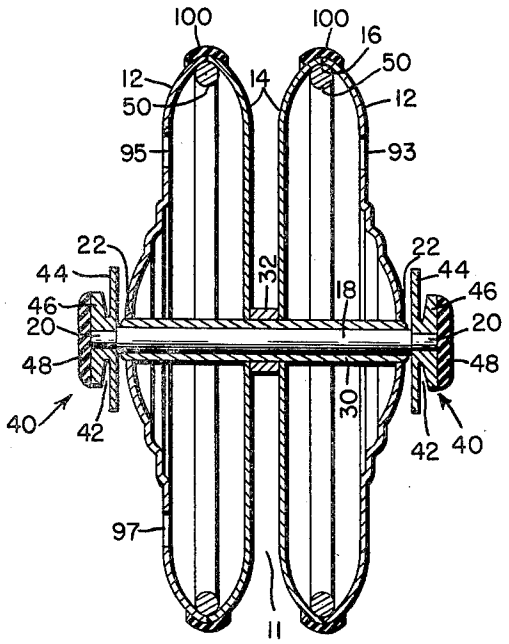


Fig. 3

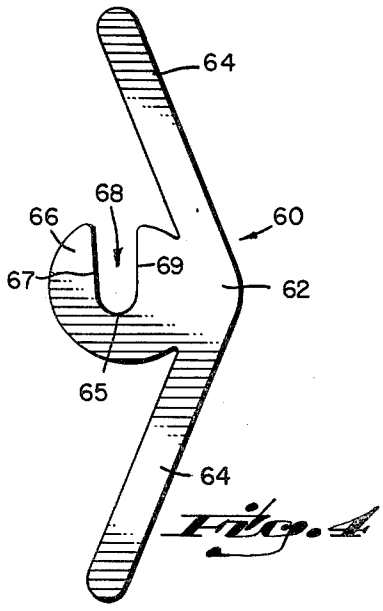


Fig. 4

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March 19, 1963 G. W. MOSHER 3,081,578

SPINNER TOY

Filed Oct. 4, 1960 2 Sheets-Sheet 2

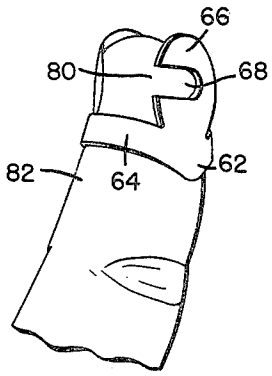


Fig. 5

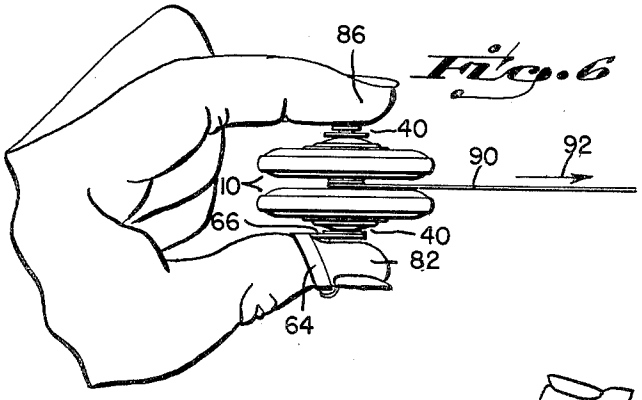


Fig. 6

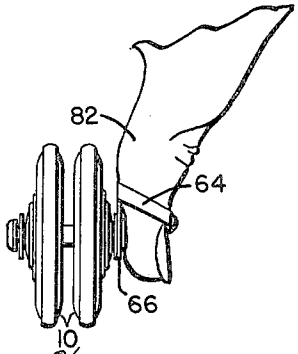


Fig. 7

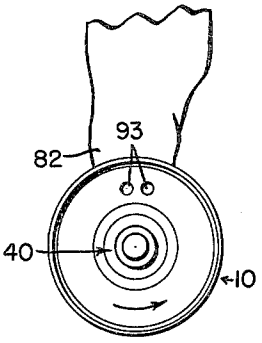


Fig. 8

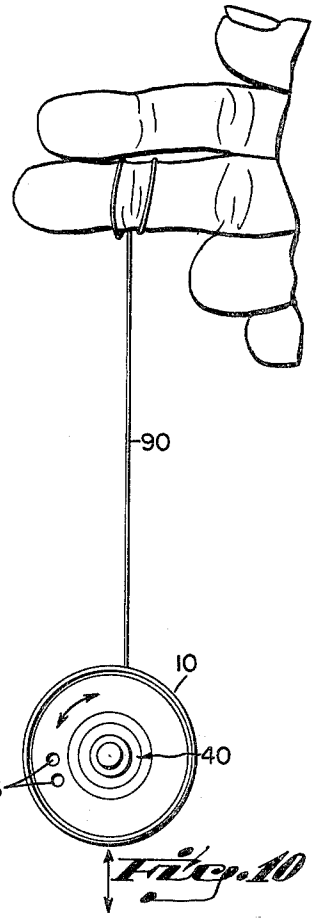


Fig. 10

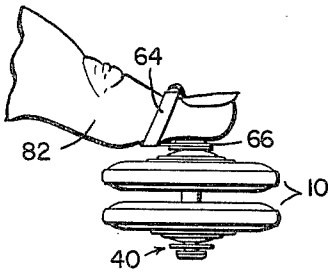


Fig. 9

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SPINNER TOY

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1 Claim. (Cl. 46—72)

This invention relates to a rotatable toy, and more particularly to a spinner simulating a yo-yo, having means associated therewith for producing pleasing sound effects and wherein the device is constructed in such a manner as to provide a pronounced gyroscopic effect.

An object of the invention is to provide a spinner type toy which comprises a pair of laterally spaced hollow annular disks which are interconnected for unitary rotation about an axial shaft which extends through said disks and wherein the opposite ends of said axial shaft terminate in axial end element or abutment means one or both of which may be held by the user of the device when operating the spinner.

Another object of the invention is to provide a spinning toy which includes a finger-engageable bracket or bearing member which may be associated with an end element of the axial spindle of the toy for mounting said toy during operation.

Still another object of the invention is to provide a spinning toy having the hereinabove described characteristics which may be inexpensively manufactured and which will combine certain features of a yo-yo and gyroscope.

These and other objects are attained by the means described herein and as disclosed in the accompanying drawings in which:

FIG. 1 is a side elevational view of a spinning toy embodying the teachings of the present invention.

FIG. 2 is an end elevational view of the device of FIG. 1.

FIG. 3 is a sectional view taken on line 3—3 of FIG. 1.

FIG. 4 is a plan view of a finger bracket which comprises a detail of the invention.

FIG. 5 is a perspective view illustrating the manner in which the finger bracket of FIG. 4 may be associated with the ball of the thumb of a user of the device.

FIG. 6 is a perspective view illustrating the manner in which the device may be held when imparting rotary motion thereto.

FIGS. 7, 8 and 9 are views illustrating various manners in whch the spinning device may be associated with the thumb of a user utilizing the finger bracket of FIG. 4.

FIG. 10 is a view illustrating the device of FIG. 2 when used as a yo-yo.

With particular reference now to FIGS. 1, 2 and 3, the numerals **10** denote a pair of similar hollow disks fabricated from inner and outer panels **12** and **14** whose peripheral edges **16** are suitably secured in abutting relationship. Each of disks **10** is suitably interconnected in laterally spaced relationship for unitary rotation about an axial spindle or shaft **18** which, as best illustrated in FIG. 3, terminates in ends **20** which project outwardly beyond faces **22** of outer panels **12** of the disks **10**. Disks **10** may be secured to and carried by a hollow sleeve **30** and spaced apart by a shoulder **32** whereby hollow sleeve **30** is rotatably journaled relative to shaft **18**.

The numerals **40** denote generally a pair of axial end elements or abutment members each of which is secured to and carried by an opposite end **20** of shaft **18**. End elements **40** are provided with an annular groove **42** intermediate an inner, axial face **44** normal to the axis of shaft **18** and an outer abutment element **46**. In the preferred embodiment of the invention a resilient member

48 is secured to and carried by the outer face of abutment **46**.

From the foregoing, it will be noted that disks **10** are thus mounted for concurrent and unitary rotation about axial shaft **18**.

The numeral **50** denotes a mass-increasing member which may comprise a loop of heavy wire, or the like, wherein said mass-increasing member is located adjacent the maximum radius of the disks for thereby providing sufficient mass for enhancing the gyroscopic characteristics of said disks when rotating about shaft **18**.

With particular reference now to FIG. 4, the numeral **60** denotes generally a finger bracket fabricated from sheet metal whereby to provide a body portion **62** from which a pair of outwardly divergent wings **64** project. The forward end of body portion **62** comprises a bearing plate **66** having an open-ended slot **68** provided therein, wherein said slot is defined by a pair of side edges **67** and **69** interconnected at their inner ends as at **65**. The lateral spacing between edges **67** and **69** is of such a dimension as to receive annular slot **42** of ends **40** of the spinning device of FIGS. 1–3.

As best illustrated in FIG. 5, finger bracket **60** may be associated with the thumb of a user of the device by disposing portion **66** over and in parallelism with the ball **80** of thumb **82**. The bracket may be securely though releasably anchored to the end of a thumb by bending side arms **64** away from the plane of portion **66** around the end of the thumb, as shown.

Rapid rotary motion may be imparted to the disks by means of a cord **90** wrapped about spacer **32** in opening **11** between disks **10**.

As clearly illustrated in FIG. 6 of the drawings, the spinner may be held by interposing the axial end elements **40** between thumb **82** and forefinger **86** for fixedly securing the spindle **18** in order that the disks **10** may be rotated incident to rapid pulling of cord **90** in the direction of headed arrow **92**.

It should be understood that when an end element **40** has been associated with the finger bracket **60**, the spindle **18** will be securely though releasably anchored to bearing plate **66** thereof and project at right angles therefrom. The spinning disks may be manipulated while suspended from the finger bracket on the thumb as in FIGS. 7, 8 and 9 for thereby imparting an unusual play-effect to the device.

If it is desired to utilize the device as a yo-yo, a closed loop is provided in the end of cord **90** for precluding separation of the cord from central spacer element **32** for enabling the device to be used as a yo-yo as in FIG. 10.

In the preferred embodiment of the invention, openings denoted by the numerals **93**, **95** and **97** may be provided in the outer panel **12** of the disks, and preferably four such openings are provided in the outer panels of one of said disks and a greater or lesser number of openings in the outer panel **12** of the other of said disks, whereby each of the disks, when rotated, will produce a different humming or whistling effect. This feature provides an interesting and novel effect to the toy in that the tones emitted from the disks when spinning at a high rate of speed will suddenly change as the momentum of the disk decreases.

The numerals **100** denote annular bands of resilient material disposed around the outer maximum periphery of each of the disks for providing a cushioning effect to the disks.

It should be understood that various changes and modifications may be made in the structural details of the device, within the scope of the appended claim, without departing from the spirit of the invention.

What is claimed is:

A spinner assembly comprising in combination, an

elongate spindle, axial end elements fixed relative to opposite ends of the spindle wherein at least one of said end elements includes an axial groove, a sleeve rotatably journaled on said spindle between said end elements, a pair of laterally spaced disks secured to and carried by said sleeve for rotation relative to said spindle and end elements, each of said disks including an annular weighted member adjacent its outer periphery for increasing the mass thereof, and a finger bracket including a bearing plate and finger engaging means integral therewith, said bearing plate having an open-ended slot therein to receive the groove of said end element for securely though releasably anchoring said spindle at one end to and supporting it to extend at right angles from said bearing plate and said finger engaging means including a pair of flat wing extensions of the bearing plate adapted to be fitted on and around a finger for the support of the assembly by the finger.

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