

June 11, 1963

W. R. IRWIN

3,093,377

SKILL TOYS

Original Filed Feb. 10, 1959

FIG. 1

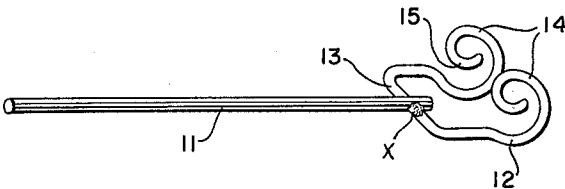


FIG. 2

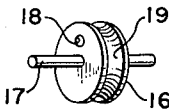


FIG. 5

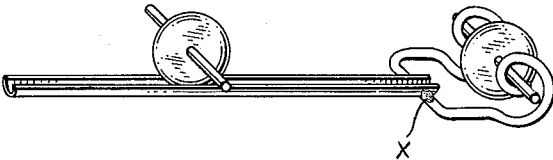


FIG. 3

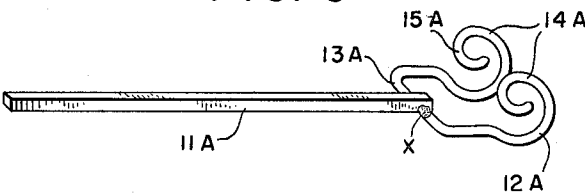


FIG. 4

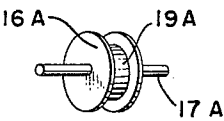
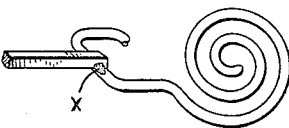


FIG. 6



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Original application Feb. 10, 1959, Ser. No. 792,386, now
Patent No. 3,011,788, dated Dec. 5, 1961. Divided
and this application Sept. 7, 1961, Ser. No. 136,463
5 Claims. (Cl. 273-109)

This invention relates to a toy and more particularly to a toy of a nature which not only requires a certain amount of skill for manipulation and use thereof but also develops coordination between the eyes and hands of the user.

This is a divisional application of patent application, Ser. No. 792,386, now Patent No. 3,011,788, disclosing the present invention, filed on Feb. 10, 1959.

An object of the present invention is to provide a toy of two parts, one part being balanced either in movement or at rest upon the other, various manipulations between the two parts being possible in a variously interacting relationship of said parts according to the skill of the player.

Other objects and advantages will be apparent herein-after.

A better understanding of the invention will be had by making reference to the accompanying drawings, in which:

FIG. 1 is a perspective view of that part of the toy apparatus holdable in the hands of the player and upon which the said other part may be manipulated,

FIG. 2 is a perspective view of a rolling device mountable and movable in various positions on the device shown in FIG. 1;

FIG. 3 is a perspective view of another embodiment of the invention with great similarity to the device of FIG. 1 and differing therefrom only in minor respects;

FIG. 4 is a perspective illustration of a rolling device similar to that of FIG. 2 and particularly adaptable with the device of FIG. 3 but also, by highly skilled players, usable in combination with the device of FIG. 1.

FIG. 5 is a perspective view of still another embodiment of the invention consisting of the hand apparatus with shafted rolling devices shown in two different positions thereon. The shaft portion of the hand apparatus has a concavity formed lengthwise thereon;

FIG. 6 is a perspective view of another embodiment, partially cut away, taken after the device of FIG. 1 but modified therefrom. The convolution of the yoke arm shown is continued in spiral fashion for another 360 degrees before it terminates in an upturned end portion. Only one of the yoke arms is shown to preserve clarity. In the play use of a gamestick with convoluted arms as shown in the embodiment would be similar to the play with the gamestick of FIGS. 1, 3 and 5 except that a rolling device would have to traverse the extra 360 degrees before it could come to rest in the eye thereof.

In the figures the manually holdable and maneuverable parts of the toy FIGS. 1 and 3 (FIG. 3 numbers having the letter "A" suffixed thereto), consists of a shaft 11 shaped to fit (generally only) the grooved portion of a rolling device (FIGS. 2 and 4). The said shaft may be shaped or moulded in various ways to conform with greater or lesser extent to the endless, circumferential modus of the periphery of a said rolling device.

The cross-section of said shaft could be shaped in an almost infinite variety of ways insofar as the said circumferential, peripheral surface of said rolling device might be enabled to be held in proximity therewith according to the skill of the player.

For example: the shafts 11 or 11A could be of square, rectangular, inverted conical or of almost any type of

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cross-section if a player, according to his skill, could keep a rolling device maneuverable thereon.

The yoke portion 12 of that manually holdable part of the device, FIGS. 1 and 3; and referable to hereafter as a gamestick is preferably made of metal as is the shaft, and weldable by heat processes thereto. However, the said gamestick and rolling device can very well be made of suitably formed wood, plastic or other material.

The said yoke portion 12 has in the embodiments a transverse straight part 13 which has intrinsic therewith in material continuation, scroll shaped elements 14 bent or formed in continuation of said transverse straight part 13.

The said scroll shaped elements continue until they terminate in upturned "eye" portions 15. The end of the scroll portions on either side have a knob or bead affixed thereto or formed thereon for purposes of play according to the desire of the manufacturer.

Indicated at "X" is where the shafts are attached to the yoke portions of the gamesticks shown in the embodiments, provided that said gamesticks are made of metal.

The roller device of FIG. 2 consists of a disk 16 having a shaft 17 that extends from each side of the disk. The shaft is insertable through a center hole of the disk and may be placed therein or removed therefrom by the application of a firm pressure applied at the end or near the end of the shaft. An off-center hole 18 is provided so that the rolling device may be given added eccentricity of movement by removing the shaft from the center hole and inserting same through the off-center hole. An endless groove 19 is formed around the outermost periphery of the disk to enable the roller device to be maintained more easily in engagement with shaft 11 of the gamestick of FIG. 1, although as was said heretofore, close engagement of the endless groove of the disk with the rounded shaft 11 would not be absolutely necessary to a very skilled or adept person in order to carry on play with the two parts of the toy apparatus.

The roller device of FIG. 4 varies somewhat from the device of FIG. 2 in that the peripheral groove formed thereon is of a shape to conform closely to the square cross-section of the shaft 11A of the gamestick of FIG. 3. The disk 16A also has only the centered hole for emplacement of shaft 17A.

In the play, either gamestick and its associated roller device are used by placing the shafted roller device upon the shaft of the gamestick and causing the disk, by means of its endless groove, to remain in close proximity with the shaft of the gamestick as said gamestick is tilted, first upwardly at one end and then downwardly at the same end, the roller device remaining in equilibrium thereon and rolling first in one direction and then in the other.

The movement of the roller upon the gamestick is thus controlled by the player until such time as he may tilt the gamestick with the yoke portion downward, allowing the roller device to be supported in static or spinning and moving equilibrium by its shaft 17 upon the scroll shaped portions 14 of the gamestick.

The player may then, by subtle motions of the wrist or hand cause the shafted roller device to enter the eye portions 15, the shaft 17 being in contact at each of its ends with the eye portions of the yoke.

Positioned in the eyes of the yoke, the rolling device may be caused to spin in place therein or it can be flipped out and caused to whirl in the air, after which it may be caught again upon the gamestick, either upon the shaft or the yoke portion of same.

Many other variations exist in the play but it is believed that these are self evident upon perusal of the drawings and that no detailed description of same are necessary.

Knowing that many varied embodiments differing in

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minor respects from the disclosed features are attainable with the instant invention, I do not wish to be limited by other than the appended claims.

What I claim is:

1. A toy comprising a game-stick and a rolling device useable therewith and thereon, said stick having a unifarious shaft portion and a bifarious yoke portion, said yoke comprising upwardly and inwardly convoluted side arms each terminating in an upturned free end forming an arcuate pocket and being joined basically by a connecting portion, said rolling device having a central body supportable upon said unifarious shaft portion of said game-stick and with outwardly disposed portions extending from each side of said central body, said rolling device being supportable by said outwardly extending portions upon the convolutions of said side arms and in the arcuate pockets formed by said free ends, each of said free ends being spaced from its adjacent convolution a distance sufficient to permit passage of a said outwardly extending portion of said rolling device therebetween whereby said rolling device may be moved along said convolutions of said yoke portion of said gamestick by a rolling movement, and said arcuate pockets having a radius of curvature sufficiently small to enable said rolling device to be retained in a substantially fixed position therein while permitting spinning thereof by the momentum of said rolling movement.

2. A toy as defined in claim 1 in which said central

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body is disc-shaped and said outwardly disposed portions are provided by a cylindrical shaft extending outwardly from each side of said body.

3. A toy as defined in claim 1 in which said central body is disc-shaped and said outwardly disposed portions are provided by a cylindrical shaft extending outwardly from each side of said body and said body having a peripheral groove to conform for close rolling engagement with the unifarious portion of said game-stick.

4. A toy as defined in claim 1 in which the central body of said rolling device has a peripheral curved surface, said curved surface making maximum rolling contact with said unifarious shaft portion of said game-stick.

5. A toy as defined in claim 1 in which said central body is disc-shaped and has both concentric and eccentric openings therethrough and said outwardly disposed portions comprise a cylindrical shaft insertable in either of said openings.

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