May 20, 1958 F. J. LA LONDE 2,835,492

PIROUETTE EXERCISER

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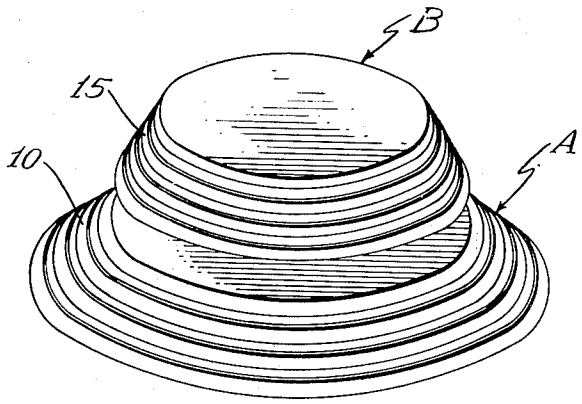


Fig. 1

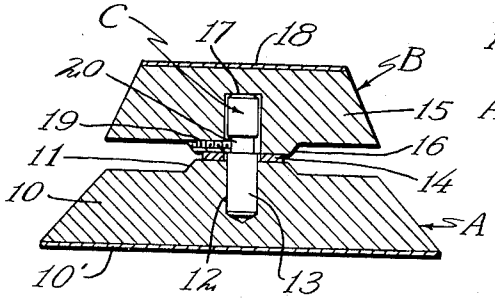


Fig. 2

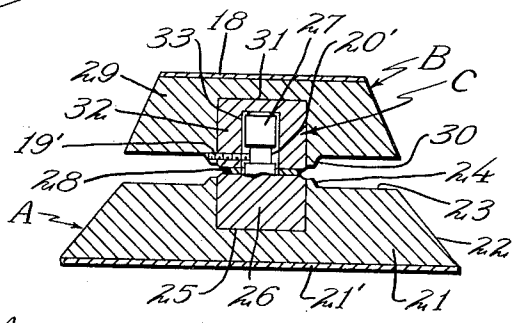


Fig. 3

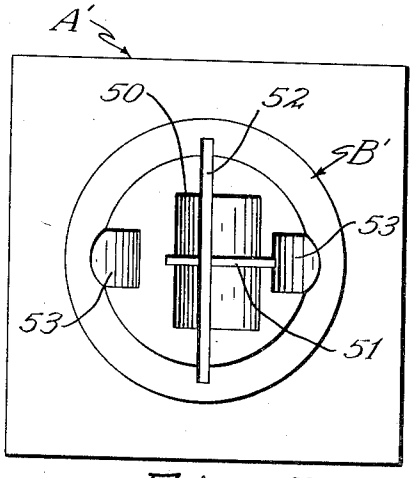


Fig. 5

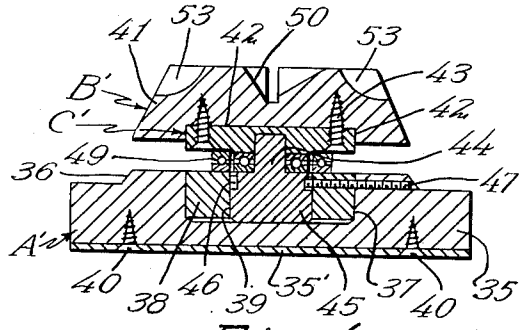


Fig. 4

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PIROUETTE EXERCISER

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1 Claim. (Cl. 272—57)

This invention relates to a foot propelled play toy whirler trainer and exerciser which teaches proper balance in pirouetting. More particularly the invention relates to the concept of a foot propelled play toy for the amusement and exercise of children which also teaches them poise and artistic balance in learning to twirl, whirl and pirouette in dancing or on skates.

Broadly mechanical revolving platforms are well known for turning objects on display however these instrumentalities are far from being conceived of as a play toy and are by no means thought of as foot propelled toys upon which children can learn the very intricate art of proper balance in twirling and whirling about while balanced on the ball or toes of one foot.

Accordingly it is an object of this invention to provide a foot pushed whirler toy for teaching children the art of balance on the ball or toes of one foot.

Another object is to provide a pusher toy whirler for amusement and exercise in the practice of balancing on one foot.

An additional object is to provide a foot pushed whirling toy for standing with one foot thereon, with or without skates being attached thereto, for placement wherever desired to afford entertainment, amusement, training, and exercise.

Further objects and advantages will be apparent from the following description of the accompanying drawings, wherein:

Fig. 1 is a perspective of the foot whirler toy disclosed herein;

Fig. 2 is a cross-section view of the whirler toy shown in Fig. 1;

Fig. 3 is a modification of Fig. 2;

Fig. 4 is another modification of Fig. 2, and

Fig. 5 is a top plan view of the foot whirler toy shown in Fig. 4.

With reference to the figures, like parts will be similarly indicated or as indicated with prime numerals.

In describing the toy structure embodied in this disclosure it will be understood that the device embodies a floor or ground rest base section A or A', a top pivotal foot and toe rest section B or B' which is of a critically small diameter size to fit the single half shoe sole under the ball portion of the foot, a skate blade or a roller skate, and a central pivotal section C or C'.

As shown in Figures 1 and 2, the base **10** is a circular cone shaped wood block provided with a center circular shoulder **11** within which is bored a hole **12**. The bottom surface of the base **10** is provided with an anti-friction cover of felt or rubber **10'** cemented or otherwise fastened thereto by conventional means as screws or the like. A center pin **13** is wedged into the hole **12**, to extend above base **10**, and a ring bearing or washer **14** placed over the pin **13** to ride on shoulder **11**. Seated over the pin **13**, on a weight load carrying roller bearing or washer **14**, is pivotal wood foot block **15** for the ball of the foot and of the approximate size of an average shoe foresole in area of surface. The bottom surface of

foot block **15** has a shoulder **16** which rides on the washer **14** and a bored centered hole **17** within which the upstanding portion of pin **13** snugly fits with sufficient freedom to turn and whirl when the ball of one foot is placed on the anti-friction pad **18**, and the other foot is used to push or start the pivoting of block **15**. The pad **18** is of felt or rubber and cemented or otherwise fastened to the top of block **15**.

A set screw **19** is turned through the shoulder **14**, to fit into a holding groove **20** extending about pin **13**. The internal end of screw **19** is adapted to slide in the groove **20** as the block **15** is turned. With the set pin **13** wedged into block **10** and the inner end of screw **19** is groove **20**, as described, the block **15** and block **10** are secured together in operative and inseparable relation. The structure provided in this embodiment is a plain and simple arrangement, economical to produce and of the preferred character over the other modified forms as hereinafter described.

In the modified structure shown in Figure 3, the base A' is a rounded block of wood, metal or resinous material **21** provided at its lower surface with an anti-friction pad of felt or rubber **21'** cemented or otherwise attached thereto by screws of a conventional character. The outer periphery **22** is frusto-conical with a flat top **23** provided with a raised center shoulder **24**. Centrally of the shoulder **24** the block **21** is hollowed out to provide a depression **25** within which is wedged the metal base or supporting member **26** supporting an upstanding peg or pin **27**. In this embodiment the base **26** is wedged or otherwise relatively permanently secured in the depression **25**. A roller bearing or ring washer **28** is positioned about the pin **27** over base **26** and which supports the weight load. The frusto-conical block **29** likewise provides a top surface of a size to fit the sole portion under the ball area of one foot, and in its undersurface, has shoulder **30**, with a depression **31** within which is wedged a metal bearing ring or block **32**. A socket **33** receives the upstanding end of pin **27** which is secured therein by the set screw **19'** being turned into a locking groove **20'** in pin **27**. Thereby the blocks **21** and **29** are fastened together with the bearing ring **28** being mounted between the pin supporting rings **26** and **32**. With the ball of one foot or toe on pad **18** block **29** is turned or pushed around by the other foot with sufficient force to cause a whirling or twirling of the body balanced on the ball of the one foot or toe.

In general from the above descriptions it will be recognized that another modification of an all metal or plastic toy structure for training and exercise in balancing on one foot can be produced by an all metal base **10** having an integral pin **13** with a roller bearing or washer **14**, and the pivoted top block **15** secured thereon in the manner as described.

In the modification shown in Figures 4 and 5 there is provided a metal, plastic or wood block base **35** having on its upper surface a raised central shoulder **36** within which is formed a hollow or depression **37**. A bearing ring **38** is wedged into the depression **37** and has a central opening **39**. The base of block **35** is provided with the anti-friction pad **35'** cemented thereto or otherwise secured by conventional screws **40**.

In this instance the block **41** is provided with a depression **37** into which a plate **42** is secured by screws **43**. The plate **42** is integral with, brazed or wedged onto the pivot pin **44** which is provided with a base **45** seated to turn within the opening **39** in ring **38**. A holding groove **46** in the head **45** is provided to receive the holding screw **47** extending through shoulder **36** and ring **38**. A ball bearing ring **49** is mounted about the pin **44** and supports the weight of block **41** on ring **38**. This bearing ring **49** is of conventional character and may

be of a diameter size to slide over the base 45. As illustrated, the pivotal turning block 41 is provided with a central angular cut 50 into which the toe end of an ice or roller skate can be placed for training in balance on the toes of one foot. The wide portion of cut 50 holds the front wheels of a skate upon which the twirler is mounted and the slots 51 guide and hold the toe of the blade of an ice skate, in balance on the pivot block 41 over pin 44. In case it is desired to first learn balancing on the whole of the single skate foot, a groove or slot 52 extending the length of the block 38 serves as a guide and support. For roller skates the curved hollowed out sides 53 hold the front and back wheels with the center or arch of the foot balanced over the pivot pin 44.

An illustrative example of an approximate size of the preferred toy structure is that it stands about 3 inches high and provides a pivot block surface for the halfsole under the ball of a foot of about 4¼ inches in diameter with the base support block about 6¼ inches at its widest point. This dimension is about average for the normal halfsole under the ball of a foot and also fits the average skate size when placed thereon, as described.

By these arrangements healthful exercise, training and balance are obtained. The toy may be used with either foot by placing the one foot on the toy pivot block and pushing off with the other. In actual operation in a play area long lines of children form to take their turn whirling about on one foot. After some practice they become quite expert in learning to turn and pivot. In addition it has been found that practice and exercise on this toy has orthopedic value.

In accordance with the patent statutes, I have described the principles of construction and operation of my foot propelled pirouette toy, and while I have endeavored to set forth the best embodiment thereof, I desire to have it understood that obvious changes may be made within the scope of the following claims without departing from the spirit of my invention.

I claim:

An exercising device comprising a frusto-conical circular base member having a large diameter bottom surface and a smaller diameter upper surface, an axial socket in the upper surface of said base member, a metal cylindrical supporting member secured in said socket and held from rotation relative to said base member, a pin projecting upwardly from said supporting member coaxial with said supporting member and secured from rotation relative thereto, said supporting member being of larger diameter than said pin and extending above the level of the upper surface of said base member, a bearing member encircling said pin and overlying said supporting member for support thereby, an annular groove in said pin above the level of said bearing member, a frusto-conical pivot block having a large diameter bottom surface and a smaller diameter upper surface, the under surface of pivot block being substantially equal in diameter to the upper surface of said base member, an axial socket in the under surface of said pivot block, a metal bearing block supported in said last named socket and secured from rotation relative to said pivot block, said bearing block projecting below the level of the under surface of said pivot block, an axial socket in the under surface of said bearing block of a diameter to rotatably support the upper end of said pin, and a set screw supported for radial movement in the lower portion of said bearing block extending into said groove in said pin, said set screw holding said pivot block from separation from said base member while permitting relative rotation therebetween .

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