Feb. 19, 1963 N. T. MILLS 3,078,092

JOUNCING FOOT TOY

Filed Feb. 17, 1961

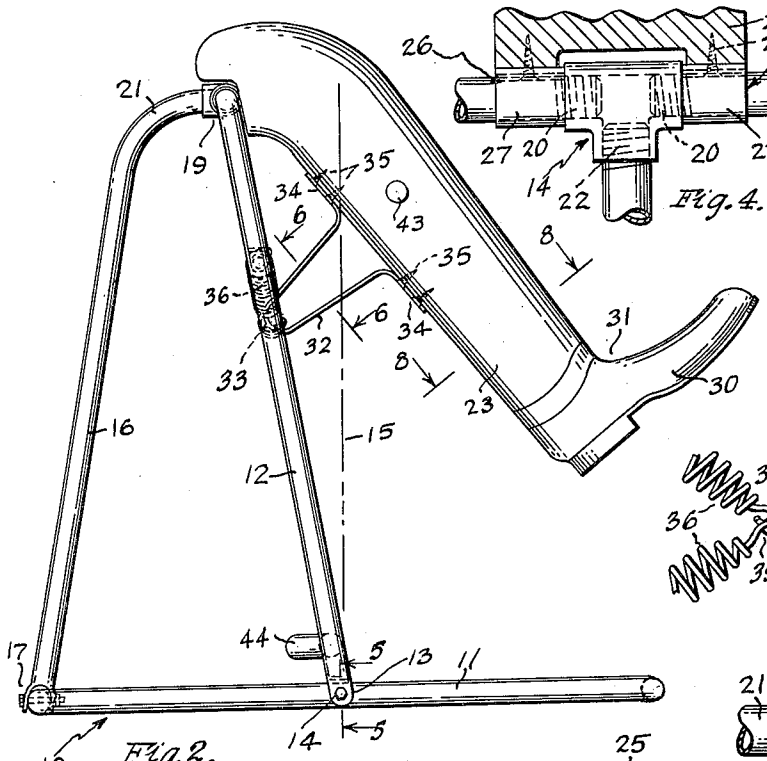


Fig. 2.

Fig. 4.

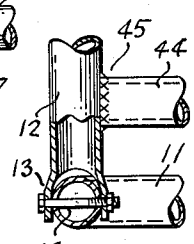


Fig. 5.

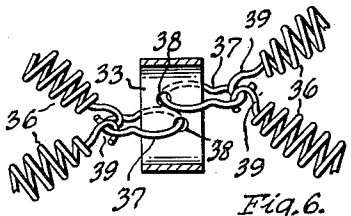


Fig. 6.

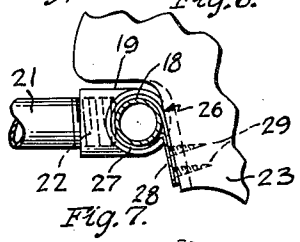


Fig. 7.

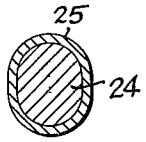


Fig. 8.

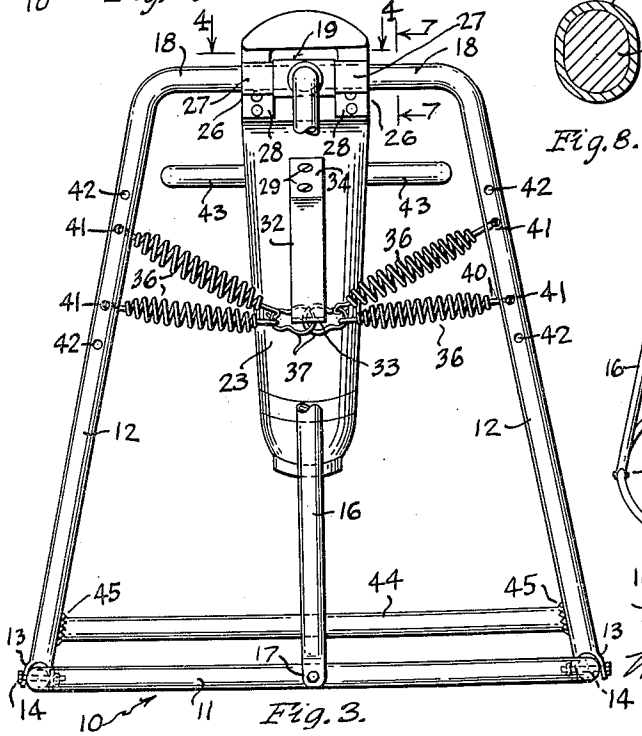


Fig. 3.

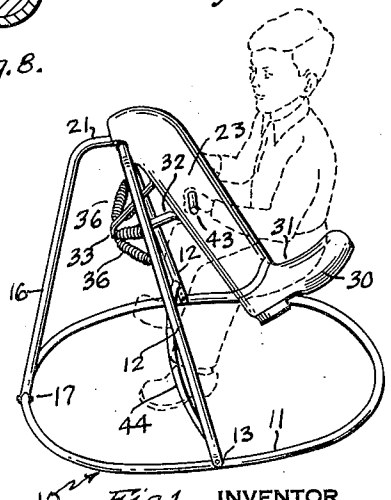


Fig. 1.

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JOUNCING FOOT TOY

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This invention relates to a jouncing foot toy, and has for an object to provide a simple and effective toy of this type which will, in effect, give a child the same or better ride as if he were jouncing on the foot of an adult with one leg crossed over the other.

Another object is to provide a device of this character which is easily mounted without assistance even by very young children, and is so constructed that it has very good stability and affords maximum safety against children falling from it or otherwise being injured in using it.

With the foregoing and other objects in view, I have devised the construction illustrated in the accompanying drawing forming a part of this specification. It is, however, to be understood the invention is not limited to the specific details of construction and arrangement shown, but may embody various changes and modifications within the scope of the invention.

In this drawing:

FIG. 1 is a perspective view indicating how the device may be used;

FIG. 2 is a side elevation;

FIG. 3 is a rear view with a part broken away to more clearly show the construction;

FIG. 4 is a detail section substantially on line 4—4 of FIG. 3 on a larger scale;

FIG. 5 is a partial section and partial elevation, the section being substantially on line 5—5 of FIG. 2, on a larger scale;

FIG. 6 is a detail section substantially on line 6—6 of FIG. 2, on a larger scale;

FIG. 7 is a detail section substantially on line 7—7 of FIG. 3, on a larger scale, and

FIG. 8 is a transverse section substantially on line 8—8 of FIG. 2.

The device comprises a supporting frame 10 of very simple construction, which provides not only the required strength, but stability which prevents its easily tipping over when in use. The structure as shown comprises a base 11 to rest on a suitable support, and comprises a tubular member, preferably bent to a substantially circular or of somewhat oval shape, but it could be of other shapes capable of giving the desired support, if desired. Extending upwardly from opposite sides of this base member is a pair of side braces 12 which may also be tubular members, secured to the base member 11 by any suitable means. In the structure shown they have a forked lower end 13 seated over the tubular member 11 and secured thereto by a transverse bolt 14 which provides a detachable hinge connection. These side braces are inclined upwardly and backwardly from the center line 15 of the base 11, as shown in FIG. 2, for a purpose later to be described. The supporting frame also includes a third back brace 16 secured to the rear of the base 11 at 17 with the same kind of connection as used at the lower ends of the side braces 12. The upper end portions of the side braces are bent horizontally inwardly, as indicated at 18, and are threaded at their free ends into the opposite sides of the T-fitting 19 as indicated at 20. The upper end portion of the rear brace 16 is bent forwardly, as indicated at 21, and threaded into the lateral extension of the T-fitting, as indicated at 22. This structure provides a strong, rigid construction for supporting the leg member 23.

This leg member may be made from any suitable material, of either solid or hollow construction, but by way

of example is shown as formed from a block of wood 24 covered with any suitable material 25, such, for example, as leather or any suitable fabric to give it an attractive appearance and also provide a surface which would be comfortable to the rider. This leg is hinged to the top of the frame by a very simple and effective means which holds it rigidly in the proper position but permits free swinging forward and backward movement to give the child the proper simulated ride. However, as can best be seen in FIG. 2, forward swinging movement of the leg is limited by the interengagement of an undesignated rearwardly extending portion of the upper end of the leg member 23 and the extension of the T-fitting 19 that receives the curved upper end of the rear brace 16. In the structure shown, a flat strap 26 is bent to a central loop 27 to wrap around the upper end portions 18 of the side braces with the free ends of the strap overlapped as shown at 28, and secured to the central structure of the leg 23 by suitable screws 29, one of these hinge members being used at each of the opposite sides of the T-fitting 19. This simple construction provides a very rigid hinge mounting for the leg member on the frame, which permits free up and down swinging movements and by cooperation with the opposite ends of the horizontal portion of the T-fitting retains it properly in the center position on the frame, and the two hinge portions are sufficiently spaced laterally to provide a rigid lateral support for the leg member. At its lower end it is provided with a foot portion 30 preferably in the form of a boot-covered foot of an adult, providing a saddle 31 on which the rider may be seated.

Secured to the rear side of the leg portion 23 is a suitable bracket 32. In the form shown it is formed from a flat strip of metal bent to an intermediate loop 33 and laterally extending end portions 34 secured to the leg member by suitable screws 35. The loop 33 is thus located a suitable distance backwardly from the leg portion, and provides means for securing this leg portion to suitable coil springs 36 which are also secured to the side braces 12 of the frame. A simple and effective means for securing the spring to the bracket 32 is by wire rings 37 looped through holes 38 in the bracket with the inner ends of the springs hooked into these rings, as indicated at 39. Similar hooks 40 may be provided in the outer ends of the springs and hooked into suitable openings 41 in the side braces 12 of the supporting frame. These openings are preferably spaced from each other longitudinally of the braces so that a plurality of springs may be used with proper spacing for freedom of movement between them, as indicated in FIG. 3, and if desired additional openings 42 may be provided spaced further than the openings 41, so that either the springs 36 may be hooked into them to provide greater tension for use of the device by a heavier child, or additional springs may be provided connecting the brace 32 with these openings for the same purpose.

Hand grips 43 may be provided in the leg portion 23 at a suitable height above the saddle 31 for the rider to grip to help him to retain his position in the saddle. These grips may be provided by an suitable means, a simple and effective one being a plain rod passed transversely through the leg portion 23, as indicated. There may also be provided a connecting brace or member 44 extending transversely between the side braces 12 adjacent their lower ends and secured thereby to any suitable means, such, for example, as welding them to the side braces, as indicated at 45 in FIG. 3. It provides a foot brace or rest for the rider, as indicated in FIG. 1. This provides means on which the rider may press with his feet to initiate and maintain his swinging movement. The springs should be of suitable size and strength to give the proper swinging movement to the leg and saddle, and also to

maintain sufficiently close convolutions to prevent the child catching his fingers in them. Connecting the spring to the outer openings 42, or providing extra springs connected to these openings, might be desirable in adapting the device for use by a heavy child.

The transverse brace 44 forms a foot rest which is preferably backwardly and concavely curved somewhat, to give a child riding the toy not only a foot rest, but something to push against with his feet to maintain the backward and forward swing movement similar to the natural swinging of a person's foot with his legs crossed. The backwardly inclined position of the side braces 12 from the vertical center line 15, as shown in FIG. 2, allows the foot to be held out further and also provides greater stability and permits a longer swing without danger of tipping the device over. As the angular position of the foot and leg is determined solely by the springs, they are brought to an intermediate position of rest when the weight is removed from the saddle, but are free to move in opposite directions against action of the springs as movement from this intermediate position of rest in either direction will tension the springs. This backward inclined position of the side braces 12, and also the curved upper end 21 of the rear brace 16, spaces this rear brace backwardly from the pivoted leg, permitting a greater swinging movement without danger of the rider becoming pinched between the leg and the rear brace.

It will be seen from the above that this very closely simulates the swinging movement or jouncing action of an adult's leg crossed one over the other, but provides a further swinging movement and a comfortable saddle seat for the rider. By disconnecting the connections at the lower ends 13 and 17 of the side and back braces from the lower or base member, the device may be partly disassembled for carrying purposes, and this may be further effected by unscrewing the rear brace 16 from the T-fitting 19.

Having thus set forth the nature of my invention, I claim:

1. A jouncing foot toy comprising a frame including a generally open horizontal base and a pair of elongated spaced coplanar side braces secured at their lower ends to said base and extending upwardly from the opposite sides thereof, a third elongated rear brace secured at its lower end to said base between and to the rear of said side braces and extending upwardy from the rear side of the base, means connecting the upper ends of the three braces, a support in the general form of a human leg and foot pivoted to the upper ends of said side braces to incline downwardly and forwardly therefrom and provided with a seat at the top of the foot, a plurality of springs connecting the leg with the side braces, said springs and said braces being coplanar, and hand grips on the leg above said seat.

2. A jouncing foot toy according to claim 1 in which there is a cross member extending between and connected to the side braces near said base providing a foot rest for a rider seated on the seat.

3. A jouncing foot toy according to claim 1 in which the lower ends of the side and rear braces are detachably connected to the base member for partial disassembly of the toy for transportation and storage.

4. A jouncing foot toy comprising a frame including a generally open horizontal base and a pair of elongated spaced coplanar side braces secured at their lower ends to said base and extending upwardly from the opposite sides thereof, a third elongated rear brace secured at its lower end to said base between and to the rear of said side braces and extending upwardly from the rear side of the base, the upper end portions of the side braces extending horizontally toward each other, a T-fitting having side portions secured to the upper free ends of the side braces and a rearwardly extending portion secured to the upper end of the rear brace, a support in the general form of a human leg and foot providing a saddle seat, pivot means comprising loops embracing the upper horizontal portions of the side braces on the opposite sides of the T-fitting pivotally mounting said support on said braces for back and forth swinging movement, a rearwardly extending portion formed at the top of said support arranged to contact said rearwardly extending portion of said T-fitting and limit forward swinging of said support, and spring means connecting the support to the side braces at a position spaced below said pivot means and tending to shift the support to an intermediate position.

5. A jouncing foot toy comprising a frame including a generally open horizontal base and a pair of elongated spaced coplanar side braces secured at their lower ends to said base and extending upwardly from the opposite sides thereof, a third elongated rear brace secured at its lower end to said base between and to the rear of said side braces and extending upwardly from the rear side of the brace and having its upper end forwardly curved, means connecting the upper ends of the three braces, said side braces being inclined backwardly from the vertical center line of the base, a support in the general form of a human leg and foot providing a saddle seat at the top of the foot, means pivotally mounting the support at its upper end to the upper end portions of the side braces with the support inclined downwardly and forwardly, springs connecting the support at a point below the pivotal mounting means to the side braces, a rearwardly curved bar extending horizontally between and connecting the side braces above the base providing a foot rest for a rider in the saddle seat, and hand grips on the support spaced above the foot portion.

6. A jouncing foot toy comprising a frame including a generally open horizontal base and a pair of elongated spaced coplanar side braces secured at their lower ends to said base and extending upwardly from the opposite sides thereof, a third elongated rear brace secured at its lower end to said base between and to the rear of said side braces and extending upwardly from the rear side of the base, means connecting the upper ends of the three braces, a support in the general form of a human leg and foot pivoted to the upper ends of said side braces to incline downwardly and forwardly therefrom and provided with a seat at the top of the foot, a bracket secured to and extending rearwardly from the support, a plurality of coiled springs connected to the bracket at one end and at their other ends to the side braces at vertically spaced points on said braces, said springs and said braces being coplanar, and means whereby the springs may be connected to the braces at points spaced above and below said first points of connections to the braces.

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