May 22, 1951 L. L. MINOR, JR 2,554,045

SPRING SUPPORTED HOBBYHORSE

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Fig. 1

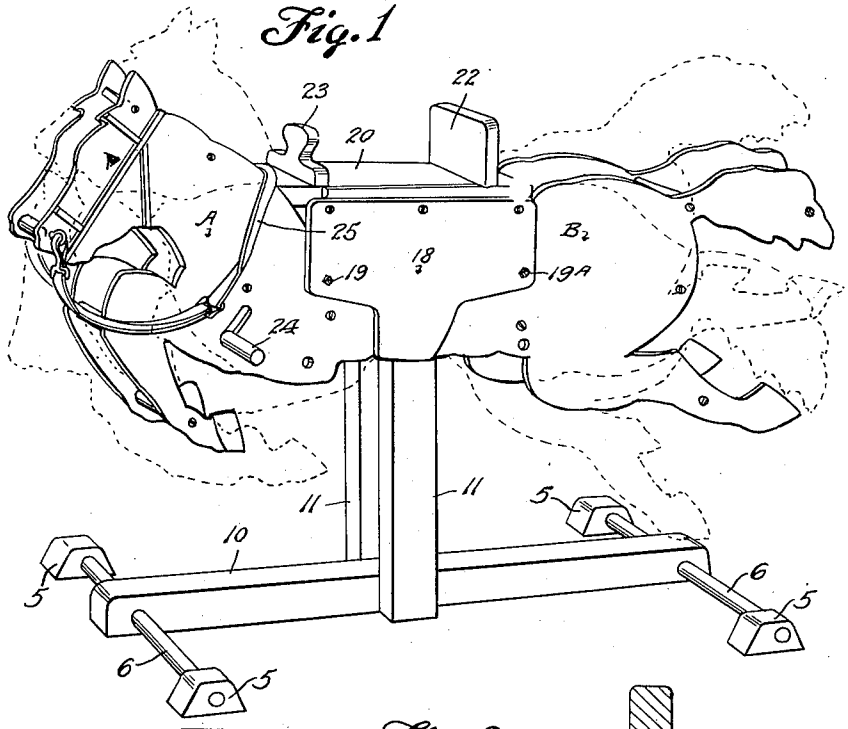
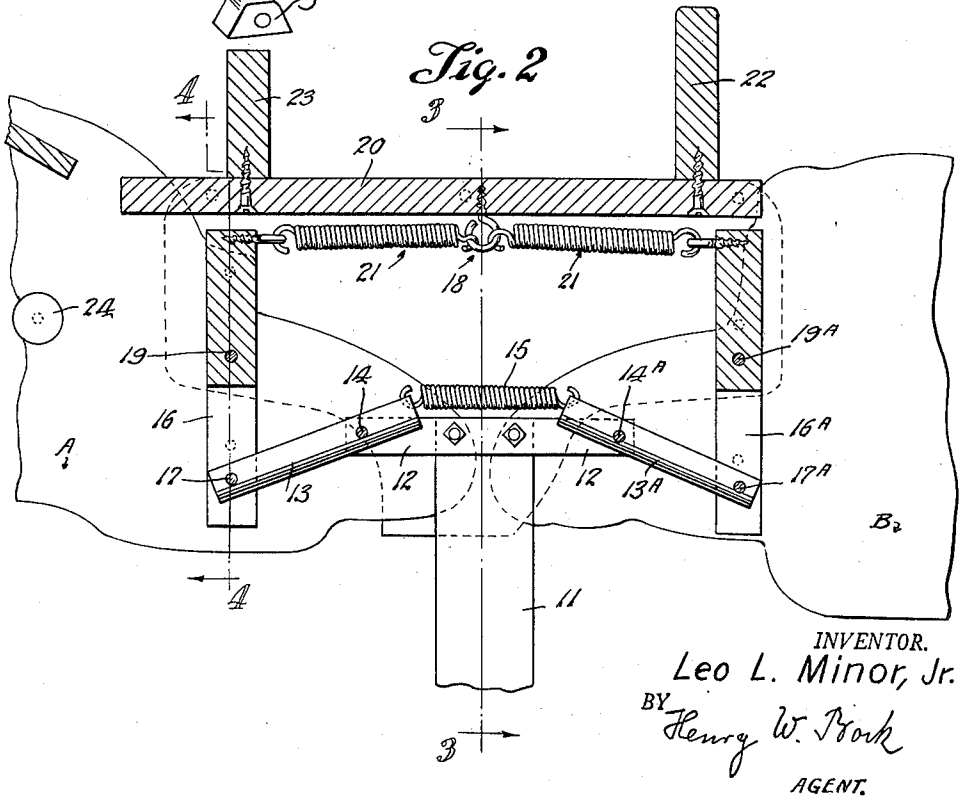


Fig. 2



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Fig. 3

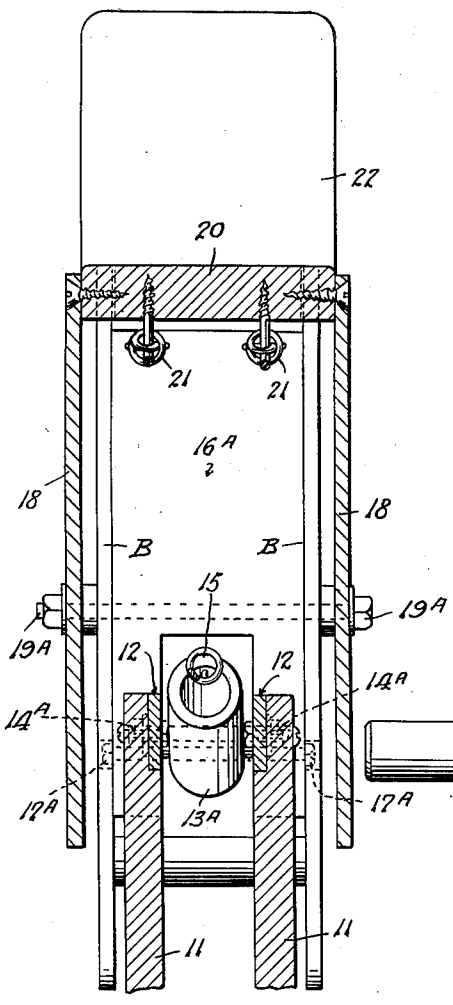
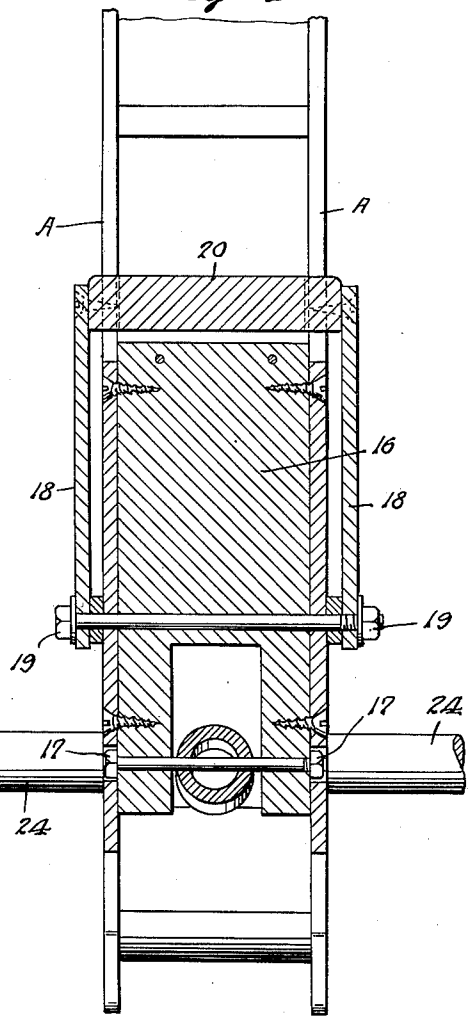


Fig. 4



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2,554,045

SPRING SUPPORTED HOBBYHORSE

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Application February 18, 1949, Serial No. 77,253

5 Claims. (Cl. 272—53.2)

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This present invention relates to a toy horse of the spring action type.

The principal object of the invention is to provide a toy horse comprising a stationary support, a saddle section yieldably mounted on the support, and front and rear sections pivotally and yieldably connected to the support and saddle section and to one another.

Another object of the invention is to provide a toy horse of the type characterized and including adjustable foot rests on the front section and engageable by the feet of the rider.

Another object is to provide a toy horse, the front section of which is swung downwardly by pressure upon the foot rests while the rear section is simultaneously swung upward.

Yet another object is to provide a toy horse of simple and inexpensive construction.

With these and other objects in view, which will become apparent as the invention is fully understood, the same resides in the novelty of construction, combination and arrangement of elements specifically hereinafter described and distinctly claimed in the appended claims.

For a better understanding of the invention, the description should be read together with the accompanying drawing forming part of the application and wherein:

Fig. 1 is a perspective view of the toy horse constituting the preferred embodiment of the applicant's invention;

Fig. 2 is a longitudinal vertical enlarged section of the saddle section and adjacent portions of the front and rear sections;

Figs. 3 and 4 are transverse, vertical sections on lines 3—3 and 4—4 respectively of Fig. 2.

In the drawings in which like or similar parts are designated by like or similar characters of reference, Fig. 1 shows a floor or ground-supported base including two pairs of feet 5, and a pair of rods 6 each having secured to one end a foot and passing at the middle through the end portion of a member 10. To opposite sides and at the middle of member 10 are affixed the lower ends of spaced vertical standards 11. Parts 5, 6, 10, 11 are hereinafter referred to as a support.

A pair of spaced beams 12 is each fastened preferably by bolts and in counter-sunk fashion to the inner side of the upper end part of a standard and project beyond the front and rear sides thereof (Figs. 2, 3). Bolts 14, 14*a* are each mounted at their ends in corresponding ends of beams 12, and each pass diametrically through the intermediate part of a tubular first class lever 13, 13*a*.

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The inner ends of tubes 13, 13*a* have openings each for the end of a spring 15. Bolts 17, 17*a* each extend through the outer end of one of the levers 13, 13*a* respectively, and through the lower ends of the spaced legs of an inverted U-shaped member 16, 16*a*, respectively.

To either vertical side of the front U-member 16 is fastened, preferably by screws, a board A, the contour of which resembles the outline of the front part of a horse and further simulates a horse by depicting the hoofs, eye and ear. In the outer side of the head part of a board A is either mounted a bridle or depicted a likeness thereof (Fig. 1). The bridle or its likeness includes a bight to the ends of which the ends of rein 25 are secured.

A saddle section includes a pair of spaced boards 18, each disposed substantially in a vertical plane or parallel to the other. A bolt or rod 19 extends through the saddle boards 18, the front section boards A therebetween and the bight-part of the front U-member therebetween (Figs. 1–4), and provides a fulcrum for the front section so that the latter can swing on the saddle section.

The same also includes a seat board 20 secured at opposite longitudinal edges by fasteners such as screws to confronting sides of the saddle boards adjacent the upper edges thereof.

A pair of screw eyes 13 are secured in spaced relation into the lower surface of the seat board and along the transverse median line thereof. The eye of each screw 13 is interlinked with one of the adjacent ends of coil springs 21. The remote ends of these springs are each interlinked with the eye of a screw embedded into the bight portion of one of the U-members from the inner side thereof confronting the other U-member. The saddle section is completed by a pair of substantially vertical boards 22, 23 affixed preferably by screws to the upper surface of the seat board and adjacent the rear and front ends thereof, respectively.

The rear section of the horse includes a pair of spaced boards B fulcrumed upon a pivot bolt or rod 19*a* which is a counterpart of pin 19 and its ends projecting beyond the rear section are each mounted in the rear part of one of the saddle side boards 18.

In each board A are formed rearwardly inclined slots in each of which an outwardly extending foot rest 24 is adjustably mounted.

The youthful rider presses his feet against the rests 24, and thereby causes the front U-member and the remaining parts of the front section to be swung counterclockwise (Figs. 1–2). The head of the horse thus moves forwardly and down-

wardly, while the entire front section also swings about pivot 17 and swings the lever 13 downward about its fulcrum 14. This forward and downward motion of the front section is possible because pivots 17 and 19 are movable with respect to beams 12.

This action stretches the forward springs 21 and exerts a pull on the saddle. The saddle section transmits the pull to the upper end of rear U-member 16*a* by coil springs 21 while spring 15 swings rear lever 13*a* counterclockwise about its pivot 14*a* with the result that the lower end of the rear U-member 16*a* rocks counterclockwise about pivot 19*a*. The rear boards B follow the motion of member 16*a* so that the rear section swings upward.

This produces a floating forward motion during which the adjacent ends of lever 13, 13*a* move apart stretching spring 15.

When this forward and downward movement of the forward section has gone as far as the rider desires, he can by releasing the foot rests and by pulling on leather rein 25 cause a reverse movement. The cycle described may be repeated.

Since all spring tensions are practically zero when the horse is at rest, a small pressure only is required to start the motion of the horse and keep it up. However, enough tension develops owing to pressure on the foot rests to enable the child to substantially vary the speed. The adjustability of the foot rests renders the horse suitable for riders of different age or size. Regardless of the pressure applied to the foot rests the horse will not tip.

It should be noticed that during the forward motion of the front section, the head is more depressed than the rear section is raised, and the reverse is true during the backward motion of the front section whereby the actual galloping of a horse is simulated. At the same time the child is "stretched" and then "bunched" as he would if the horse was jumping at full speed, thus providing not only the pleasure of a real horse ride, but also excellent training in pose, since this toy horse does not require a child to throw his weight forward and backward as in others now in use. The rider sits upright all the time and follows the movement of the horse as he actuates it. If the child "bounces" on the seat, an up-and-down spring action is produced about axes 17, 14 and 17*a*, 14*a* with both U-members 16, 16*a* moving down with axes 19, 19*a* at rest, thereby simulating the trotting action of a real horse.

Having thus described one embodiment of my invention, it is to be understood, however, that such invention is not to be limited to the particular details herein described or shown on the drawing, but that the same comprehends other forms or devices adapted to carry out the results herein disclosed without departing from the spirit of my invention and the scope of the appended claims.

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

1. In a sectional toy horse the combination comprising a support, a pair of levers fulcrumed about spaced axes on the support, spring means connected to both levers and urging them to positions approaching the horizontal and substantially symmetrical with respect to the support, a first horse section simulating the head, neck and forearms and pivoted to one of the levers, a second horse section simulating the loins, tail and hind legs and pivoted to the other lever, a third section simulating a saddle and pivoted to the first and second sections, and second spring means connected to the first, second and third sections at points opposite to the lever pivots.

2. The combination according to claim 1 and wherein the levers are fulcrumed intermediate their ends and tubular and have each an aperture adjacent one end and the first spring means is hooked into the apertures.

3. The combination according to claim 1 and wherein the first and second horse sections each includes a pair of parallel boards and an inverted U-member spacing the boards and each lever is pivoted to and between the legs of a U-member.

4. The combination according to claim 3 and wherein the last-mentioned spring means is a pair of springs and the U-members of the first two sections carry eye screws each interlinked with one end of one of the pair of springs and the saddle simulating section carries an eye screw interlinked with the other ends of the pair of springs.

5. The combination according to claim 1 and wherein the first and second horse sections include a pair of parallel boards held in spaced relation and each board has a slot and also comprising a pair of foot rests each adjustably mounted in one of the slots.

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