

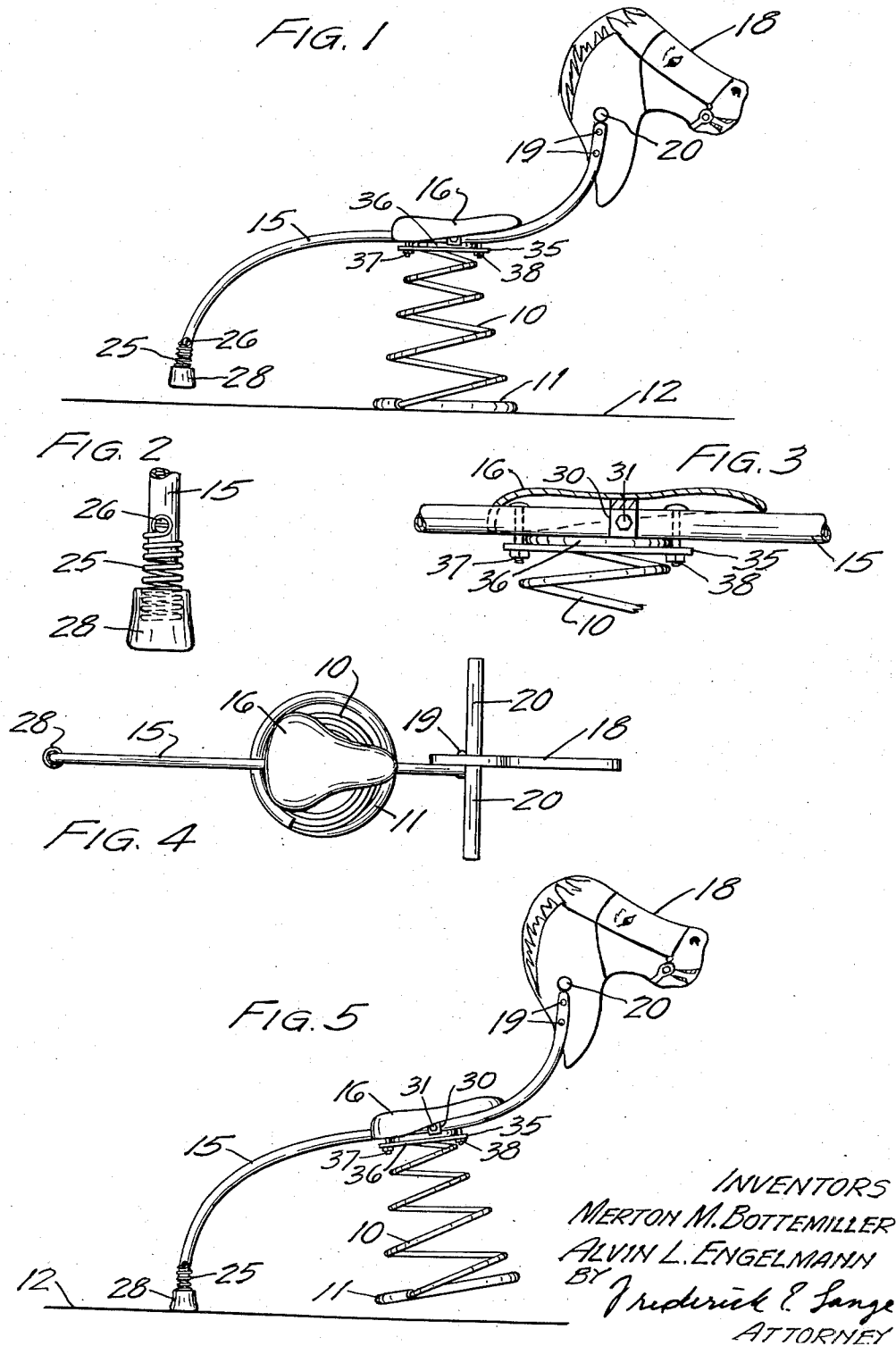
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ANIMAL-SIMULATING RIDER-ACTUATED BOUNCING TOY

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ANIMAL-SIMULATING RIDER-ACTUATED BOUNCING TOY

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The present invention is particularly concerned with a bouncing toy of the type which supports the weight of a child or other person, and tends to advance along a surface as the toy is bounced.

An object of the present invention is to provide such a device which has a rearwardly extending abutment which serves to aid in the device moving forward as it is bounced by the occupant.

A still further object of the invention is to provide such a device in which the rearwardly extending abutment serves to prevent the device from tipping backward.

A further object of the invention is to provide such a device which is extremely simple in construction.

A further object of the invention is to provide such a bouncing toy in which there is employed a conical spring of a type in which the successive coils telescope within one another to minimize the danger of fingers being caught between the turns of the coils.

A further object of the present invention is to provide such a device in which there are handle members and a figure resembling the head of an animal so as to simulate to the rider the effect of riding an animal.

These and other objects of the invention will be apparent from a consideration of the accompanying description, claims, and drawing, of which:

Figure 1 is an elevational view of our improved bouncing toy,

Figure 2 is a detail of the extremity of the rearwardly extending abutment thereof,

Figure 3 is a view showing one manner of attaching the conical spring and a seat member to the main portion of the device,

Figure 4 is a top plan view of the toy, and

Figure 5 is a view similar to Figure 1 but with the toy in the position it assumes at the upper extremity of its motion while being bounced.

Referring specifically to the drawing, the toy is shown in Figure 1 in the form of a toy horse which is designed to be bounced along a floor or other surface. The main elements of the horse are secured to and are supported by a coil spring 10, the coils of which are progressively increasing in diameter going from the top to the bottom. The lowermost coil, best shown in Figure 4, is covered with a rubber sleeve 11 to protect the floor 12, or other supporting surface, against abrasion, and to minimize the noise resulting from operation of the toy.

Secured to the upper end of coil 10 is a bar 15 and a seat 16. The bar 15 is shown in the form of a metallic tube, the intermediate portion of which extends substantially horizontally. The forward end of the bar 15 is turned upwardly, and has secured thereto a figure 18 resembling the head of a horse. The horse may be secured to the bar by rivets 19 or any other suitable fastening means. A rod 20, best shown in Figure 4, extends through the figure 18 on each side of the figure for a sufficient distance to be grasped by the hands of one seated on the seat 16. Thus, rod 20 acts as a handle member. This rod may be of wood or metal or other

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suitable materials, and secured directly to the bar 15 or merely to the figure 18, which, in turn, is secured to the bar 15, as previously described.

The rearward extremity of bar 15 is curved downwardly so that the most rearward portion thereof extends substantially vertically. Secured to this extremity is a compression spring 25, as best shown in Figure 2. Approximately two turns of the spring 25 may extend over the lower end of bar 15 with the upper end of the spring secured to bar 15 by a bolt 26 extending through the bar 15 and an eyelet at the upper end of the spring 25. The lower portion of the spring 25 has secured thereto a rubber cushion member 28 which may resemble a crutch tip in configuration. This rearward and lower extremity of rod 15 together with the spring 25 and cushion member 28 constitute an abutment member designed not only to prevent the device from tipping backward but also to serve as an indexing member to aid in the forward propulsion of the toy as it is bounced by the occupant.

As previously noted, the seat 16 and the bar 15 are both secured to the spring 10. Any suitable means may be employed for fastening the seat member 16 and the bar 15 to the spring 10. One example of such a fastening means is shown in Figure 3 in which the seat member 16 is shown in vertical section. It will be noted that secured to the seat member 16 by welding or any other suitable manner are a pair of downwardly extending ears 30, only one of which is visible in the drawing. These two ears are disposed on opposite sides of the bar 15, and a bolt 31 passes through the two ears and the intermediately disposed bar 15. Upon the bolt being tightened, the ears are drawn tightly against the bar 15 to hold the seat member 16 rigidly with respect to the bar. The bar is fastened to the upper coil of spring 10 by a flat bar 35 which extends underneath the upper coil 36 of coil 10 and which is clamped to the main bar 15 by a pair of bolts 37 and 38 which pass through apertures in the main bar 15.

Seat member 16 may take various forms but is shown in the drawing in the form of a saddle member stamped from heavy sheet metal, and having the ears 30, previously referred to, rigidly secured thereto.

As previously noted, the spring 10 is a coiled spring, the diameter of the turns of which progressively increases from top to bottom. The increase in diameter is sufficient that the coils freely telescope within each other as the spring is compressed. The use of this type of coil spring has several advantages. It permits the seat member 16 to be mounted directly on the top of spring 10 with the assurance that the spring can be wide enough at the base to provide a high degree of stability to the toy, and yet narrow enough at the top to permit the spring being comfortably straddled by a child seated on the seat 16. Furthermore, the conical spring 10, because of the telescoping character of the coils minimizes chances of fingers being caught between turns of the coil as the coil is compressed.

Referring now to the operation of the device, the child will sit on the seat 16 facing forwardly and grasping the handle member 20. The height of the coil 10 is approximately the height of the lower legs of the child so that the child's feet can rest comfortably on the floor. Upon the child applying its weight in a bouncing motion, the spring 10 is compressed. Before the child's weight is applied, the cushion member 28 at the lower extremity of bar 15 is well above the surface upon which spring 10 rests. As the spring is compressed, the cushion member 28 is brought into engagement with the supporting surface 12 and the spring 25 extending between the lower end of the bar 15 and the cushion member 28 is compressed. Thereafter, as the coil 10 is further compressed, the cushion member 28 serves to retard any rearward

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 movement of the toy and acts as a pivot point about which continued movement of the bar 15 takes place. Upon the child raising its weight and the coil 10 expanding again, the coil 10 will tend to leave the surface 12 (as shown in Figure 5), if the bounce is sufficiently violent. As it leaves the surface, it tends to reengage the surface 12 at a point slightly forward of that from which it left the surface, due in part to an indexing function imparted by the cushion member 28 preventing any rearward movement of the toy. This action may also be assisted by the child in the way in which he shifts his weight. The result is that the toy may be propelled rather rapidly about a floor or other surface as it is bounced.

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 The abutment 28, as previously noted, also insures against the device tipping backwardly. The feet of the child prevent the device from tipping forwardly and with the provision of the abutment 28, the device is very stable despite the extreme simplicity of the construction.

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 It will be seen that we have provided a bouncing toy of extremely simple construction which may be propelled forwardly readily upon the user bouncing up and down on the same.

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 While we have described a specific form of our device, it is to be understood that the invention is limited solely by the scope of the appended claims.

We claim as our invention:

1. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, a device supported by said compression spring and designed to receive the weight of a person, and a rearwardly and downwardly extending abutment member secured with respect to said device and adapted to frictionally engage the surface whenever a person supported on the device applies his weight to compress the spring.

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 2. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, a seat supported by said compression spring, and a rearwardly and downwardly extending abutment member secured with respect to said seat and adapted to frictionally engage the surface whenever an occupant of the seat applies his weight to compress the spring so as to prevent rearward movement of said toy along said surface as said spring is compressed.

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 3. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, a device supported by said compression spring and designed to receive the weight of a person, a rearwardly and downwardly extending abutment member secured with respect to said device and adapted to frictionally engage the surface whenever a person supported on the device applies his weight to compress the spring so as to prevent rearward movement of said top along said surface as said spring is compressed, and means also secured with respect to said device to be grasped by the hands of the person on said device.

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 4. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, said spring being a conical spring with the lowermost coil being of largest diameter and the relative diameters of the coils being such that they tend to telescope within each other as the spring is compressed, a device supported by said compression spring and designed to receive the weight of a person, the coils of said spring being of sufficiently great diameter as to normally prevent tipping thereof with the weight of a person thereon, and a rearwardly and downwardly extending abutment member secured with respect to said device and adapted to engage the surface whenever a person supported on the device applies his weight to compress the spring.

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 5. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, a

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 seat supported by said compression spring, said spring being of approximately the same height as the lower legs of a small child so that when a child is on said seat, his feet can rest on the surface, the coils of said spring being of sufficiently great diameter as to normally prevent tipping thereof, and a rearwardly and downwardly extending abutment member secured with respect to said seat and adapted to engage the surface whenever an occupant of the seat applies his weight to compress the spring.

6. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, a seat member and an elongated bar, both said seat member and said bar being supported by and secured to said spring with said seat member at an intermediate point along said bar, said bar having its rearward portion extending downwardly to form an abutment adapted to engage the surface whenever an occupant of the seat applies his weight to compress the spring, and said bar having its forward portion extending upwardly with a handle member secured thereto.

7. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, a seat member, and an elongated bar, both said seat member and said bar being supported by and secured to said spring with said seat member at an intermediate point along said bar, said bar having its rearward portion extending downwardly to form an abutment adapted to engage the surface whenever an occupant of the seat applies his weight to compress the spring, and said bar having its forward portion extending upwardly with a handle member, and a figure resembling the head of an animal secured to said forward portion adjacent the forward extremity thereof.

8. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, a device supported by said compression spring and designed to receive the weight of a person, and a rearwardly and downwardly extending abutment member secured with respect to said device and adapted to engage the surface whenever a person supported on the device applies his weight to compress the spring, said abutment portion having a resilient member secured thereto to minimize the noise resulting from engagement of said member with the surface and to prevent movement of said member along said surface during engagement therewith.

9. In a toy adapted to be bounced along a surface, a compression spring adapted to rest on such a surface, said spring being a conical spring with the lowermost coil being of largest diameter and the relative diameters of the coils being such that they tend to telescope within each other as the spring is compressed, a seat secured to the upper coil of the spring, and a handle member also secured to said spring and disposed substantially higher than and forwardly of said seat, said spring further being of approximately the same height as the lower legs of a small child so that when a child is on said seat with a hand grasping said handle member his feet can rest on the surface, and the lowermost coil being of sufficiently great diameter as to normally prevent tipping of the toy in use.

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