

Feb. 11, 1969

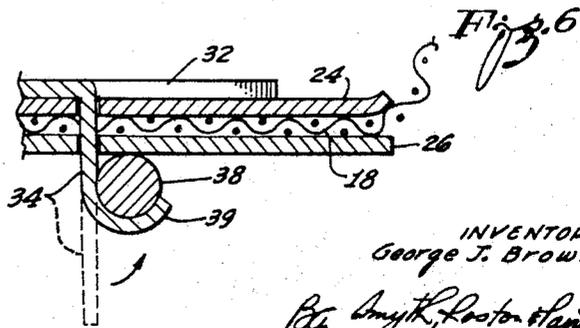
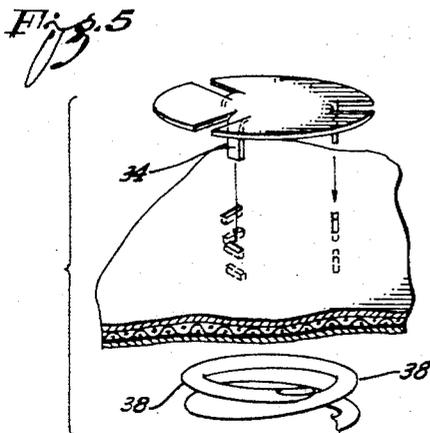
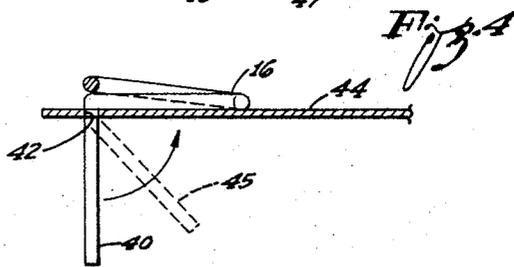
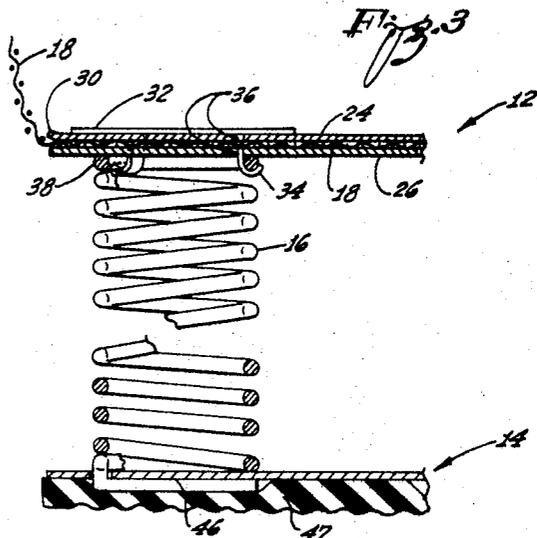
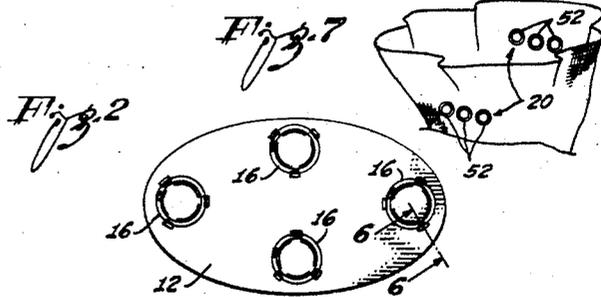
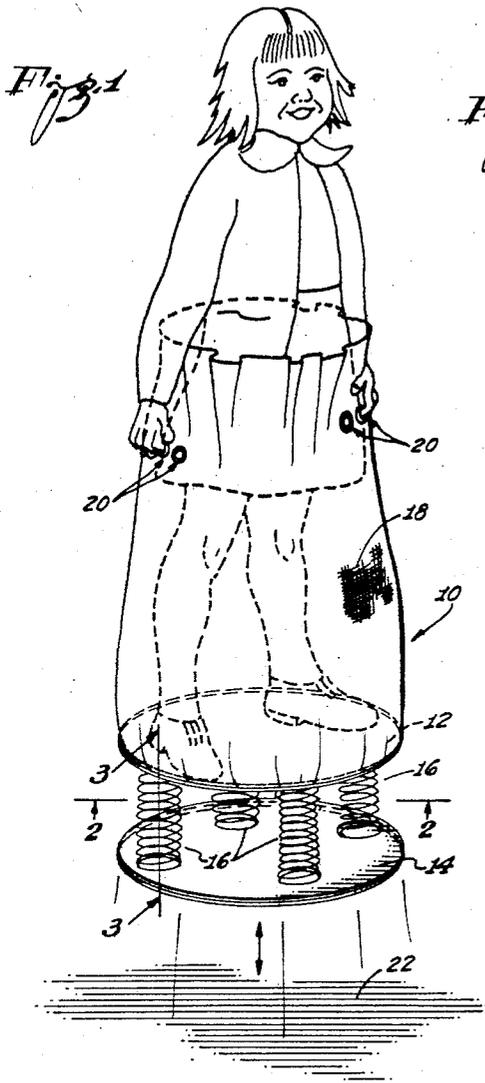
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3,427,019

SPRING-BIASED JUMPING DEVICE

Filed Sept. 8, 1964

Sheet 1 of 2



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Sheet 2 of 2

Fig. 8

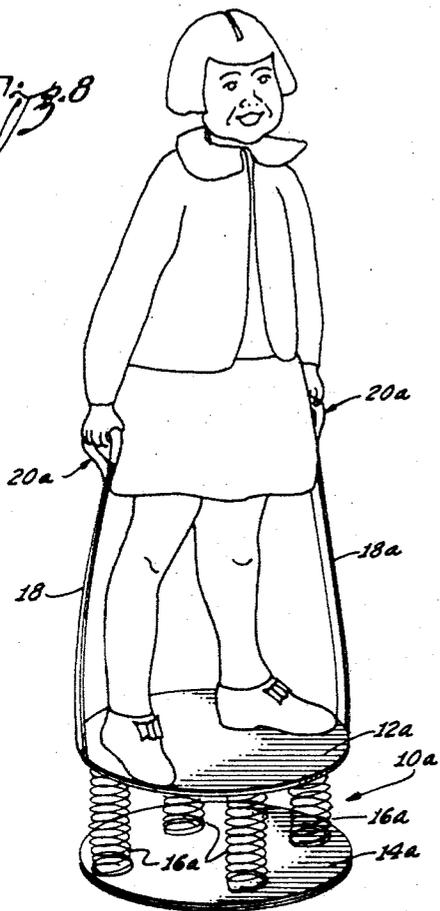


Fig. 9

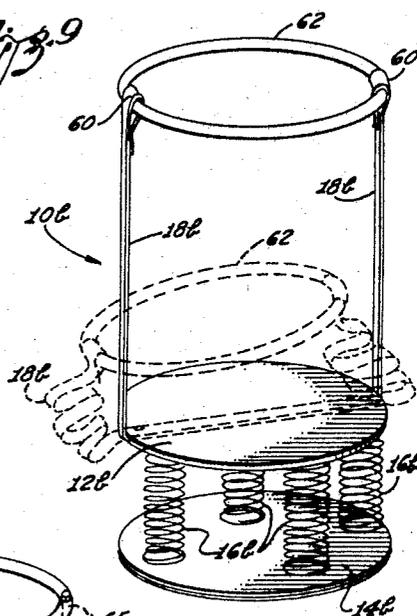
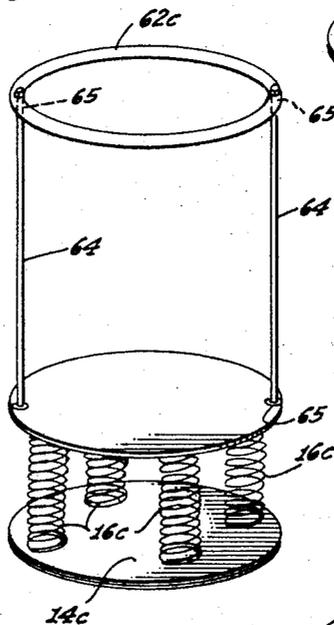


Fig. 10



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3,427,019

SPRING-BIASED JUMPING DEVICE

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4 Claims

This invention relates to a game device adapted for use primarily by children.

This invention is a child's amusement device on which a child can bounce up and down above a floor or ground surface and propel herself backward and forward, thus providing amusement and diversion as well as physical exercise. One feature of the invention is that it may be easily operated by a young child and offers an opportunity for the child to develop skill in operating and manipulating the device, and thus will act to retain the child's interest over a prolonged period, and when two or more children are playing together, it affords them an opportunity for increasing their entertainment and their own amusement.

This invention comprises a pair of relatively rigid members separated by a plurality of coil springs and arranged so that a child may stand on one member while the other member engages a floor or ground surface. The device is provided with handles by which a child balances herself on a device and by jumping up and down thus actuating the springs, may propel herself backwards, forwards and sideways, as desired. In one embodiment of the invention, the handles form part of a sack by which the child can play with the device individually or in groups such as, for example, by using the device for playing an improved version of a sack race which adds to the usefulness of the device for amusement not only for individuals, but for groups of children.

In another form of the invention, the handles are strapped to one of the members and in still another embodiment, a hoop is provided which may be grasped like a handle so that the child may control the device. In any of the embodiments where a sack is used or a hoop or handles strapped to the device, it may be used individually or in groups for amusement purposes, as is apparent.

Another feature of the invention is a new and improved manner of constructing the game device which makes it rugged to withstand rough handling during strenuous play, simple to manufacture and reduces the cost of game devices.

Other and additional features and advantages of the present invention will become apparent from a more detailed description of the drawings, wherein:

FIGURE 1 is an elevational perspective view of the preferred embodiment of the invention showing the device as operated by a child bouncing up and down on a floor;

FIGURE 2 is a bottom view of an upper member or platform upon which the child stands, taken along line 2-2 of FIGURE 1 and illustrating to advantage the manner of connecting the springs to the upper member;

FIGURE 3 is a partial elevational sectional view taken along line 3-3 of FIGURE 1 and showing to advantage the manner of connecting the coil springs to the upper and lower members;

FIGURE 4 is an enlarged detail view showing the manner of attaching the lower end of the coil spring to the lower member;

FIGURE 5 is an exploded view showing the manner of attaching the upper end of the coil spring to the upper member;

FIGURE 6 is an enlarged elevational, sectional view illustrating the attachment of the spring to the upper member and taken along line 6-6 of FIGURE 1;

FIGURE 7 is a partial perspective view illustrating the finger tabs or gripping elements formed in the sack for use as illustrated in FIGURE 1;

FIGURE 8 is another embodiment of the invention showing straps as gripping elements;

FIGURE 9 illustrates another form of gripping the game device by means of a relatively rigid hoop; and

FIGURE 10 illustrates another form of the invention wherein the relatively rigid hoop is retained on the upper member by relatively rigid bars.

Referring first to FIGURE 1, it can be seen that the amusement device, illustrated in its entirety as 10, includes an upper member 12, preferably oval in shape, and a lower member 14 of substantially the same size and shape as upper member 12, separated by a plurality of coil springs 16 (four shown) spaced equidistant therebetween and near the edges of the upper and lower members. A child standing on the upper side of the member 12 and supporting herself by gripping a cloth sack 18 at the handle openings 20 can bounce up and down on the floor 22 and by shifting her weight backward and forward, can propel herself backward, forward and sideways in any number of ways as desired.

Turning now to FIGURES 2-6, inclusive, wherein the preferred manner of constructing the amusement device is illustrated, it can be seen that the upper member 12 comprises an upper sheet or plate 24 of relatively flat, rigid material such as plywood or metal and a lower sheet or plate 26, preferably of similar material, sandwiching the bottom 28 of the sack 18 therebetween. The outer edge of the upper sheet 24 may be curved as at 30 to prevent injury to the cloth.

As illustrated in FIGURE 2, the helical springs 16 are each disposed about the underside of the upper member 12 in a manner suitable to permit a child to balance the device when standing on the upper member 12. Each spring is secured to the underside of the upper member by a circular attaching plate 32 having downwardly extending tabs or ears 34 (three shown) stamped out of the plate 32 and which are inserted into rectangular slots 36 in the upper and lower plates 24 and 26, as illustrated in FIGURE 6. The tabs 34 are then bent around and up the upper flat end coil 38 of the spring 16, as illustrated at 39, to secure the spring to the underside of the plate 26 and at the same time secure together the upper and lower plates and the cloth sack sandwiched therebetween.

The other end 40 of the spring, such end being untempered, is downwardly extending and is inserted through hole 42 in a relatively flat, rigid sheet or plate 44 of material such as plywood or metal. As illustrated in FIGURE 4, the end 40 is bent as at 45 in parallel contact with the sheet 44 (FIGURE 3 at 46) to secure the spring thereto, as illustrated in FIGURES 3 and 4. A sheet 47 of resilient rubber-like material is secured in any suitable manner to the underside of plate 44 to protect the floor or surface from scratches and the like and completes the lower member 14. As illustrated in FIGURE 4, the sheet 47 of rubber-like material is preferably corrugated, as at 48, preventing slippage on the surface as the device is being played with.

The other end of the sack 18 is selected according to the average height of the children using the device, such as about waist height, as illustrated in FIGURE 1 at 50, and the handle openings 20 comprise rivets 52 more clearly illustrated in FIGURE 7 on each side of the sack so that they can be grasped by the children's fingers in a manner shown in FIGURE 1. Three such rivets are shown as in FIGURE 7 for gripping; however, any number may be selected, and while they are shown disposed at one level to be used by the child of the size shown in FIGURE 1, any number of grips or handles at various

height levels in the sack may be selected to accommodate children of different sizes.

Turning now to FIGURE 8, it can be seen that the amusement device illustrated therein as at 10a is provided with an upper member 12a and lower member 14a separated by springs 16a, all of which are identical in construction and operation, as previously described, and the same reference numerals are used to identify the similar members except that the suffix "a" has been added. In this embodiment, a pair of straps 18a of any suitable material are utilized and provided with a pair of handles 20a to be gripped by the child in a manner similar to the handles 20 in FIGURE 1 and which device 10a may be operated in the same manner. This embodiment also illustrates the utilization of additional lower handles located below the upper handles 20a so that the device can be used by smaller children.

FIGURE 9 illustrates another embodiment of the amusement device identified as 10b. This device is also provided with an upper member 12b and a lower member 14b separated by springs 16b, all of which are constructed and which function in a manner similar to the previously described similar members having identical reference numerals. In this embodiment, however, the device is provided with a pair of straps 18b which are looped at their ends as at 60 to attach a relatively rigid hoop member 62 which, in this embodiment, provides a means of grasping the device by the hands of the child for balancing and maneuvering the device, as was accomplished with the handles 20 and 20a. Otherwise, the function and operation of this embodiment are identical with previously described embodiments.

FIGURE 10 illustrates still another embodiment of the amusement device 10c, also provided with upper and lower members 12c and 14c separated by springs 16c, all of which are constructed and which function in a manner similar to the previously described similar member having identical reference numerals. In this embodiment, however, the hoop 62c, which is relatively rigid, is attached to the upper member 12c by rigid dowels or poles 64 in any suitable manner such as through apertures 65 and held by means of a nut and washer arrangement (not shown). This embodiment functions in a manner similar to the previously described embodiments except that the rigid dowel members 64 maintain the hoop 62c in its maximum vertical height as distinguished from the flexible straps 18b shown in FIGURE 9.

From the above description, it can be seen that this amusement device may be easily operated by a young child and affords an opportunity for the child to develop skill in operating and manipulating the device by standing on the upper member, such as illustrated in FIGURES 1 and 8, and jumping up and down utilizing the upper member as a springboard. With a little practice, the child can maneuver the device not only upwardly and down, but may propel herself up, backwards and sideways, as desired.

While only a limited number of embodiments of the present invention are disclosed and described herein, it will be readily apparent to persons skilled in the art that numerous changes and modifications may be made without departing from the scope of the invention. Accordingly, the foregoing disclosure and description thereof are for illustrative purposes only and do not in any way limit the invention which is defined only by the claims which follow.

What is claimed is:

1. An amusement device, comprising:
 - a substantially flat upper member of sheet material,
 - a lower member of approximately the same size and shape as said upper member,
 - spring means supporting said upper member on said lower member,
 - gripping means to be grasped by a child standing on said upper member, and means connecting said

upper member to said gripping means and of a length such that the child can grasp the gripping means while in an upright standing position so that a child may balance herself while standing on said upper member and utilize the upper member and the gripping means to actuate the upper member as a springboard by jumping up and down so as to propel herself forward, backward and sideways, as desired, said connecting means being flexible and collapsible to permit the gripping means to drop when released by the child.

2. An amusement device, comprising:
 - a substantially flat upper member of sheet material,
 - a lower member of approximately the same size and shape as said upper member,
 - spring means supporting said upper member on said lower member,
 - a sack having its bottom attached to said upper member, and
 - gripping means formed in said sack at a distance from the bottom of said sack to be grasped by a child standing on said upper member so that a child may balance herself while standing on said upper member and utilize the upper member and the gripping means to actuate the upper member as a springboard by jumping up and down so as to propel herself forward, backward and sideways, as desired.
3. An amusement device, comprising:
 - a substantially flat oval upper member formed by securing a pair of plates together,
 - a lower member of approximately the same size and shape as said upper member and comprising a plate of rigid material having a rubber-like material attached thereto for protecting the surface on which said device is used and corrugations on said rubber-like material for preventing slippage between said lower member and said surface,
 - coil spring means supporting said upper member on said lower member and attached to said lower member by inserting the ends through apertures in said rigid material, and
 - gripping means in the form of a sack attached to said upper member and extending upward therefrom to be grasped by a child standing on said upper member so that a child may balance herself while standing on said upper member and utilize the upper member and the gripping means to actuate the upper member as a springboard by jumping up and down so as to propel herself forward, backward and sideways, as desired, the bottom of said sack being sandwiched between said pair of plates of the upper member, said gripping means being formed by holes in the sides of the sack.
4. The amusement device as set forth in claim 1 in which said gripping means comprises two handles and said connecting means comprises a pair of straps connected to opposite sides of said upper member and to the two handles respectively to permit the child to step off and onto the upper member while grasping said handles.

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