

Jan. 29, 1957

H. N. RIDGWAY
AMUSEMENT SLIDE

2,779,596

Filed Feb. 6, 1956

3 Sheets-Sheet 1

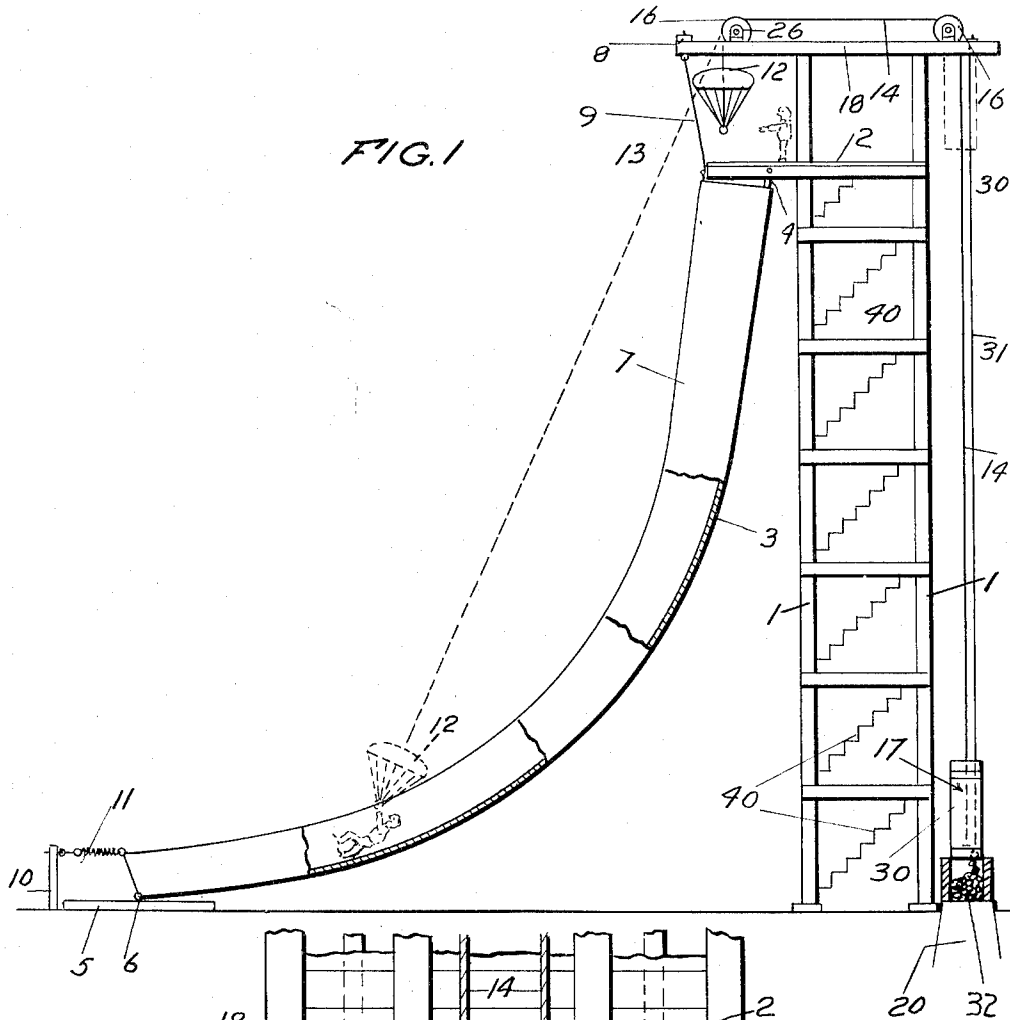
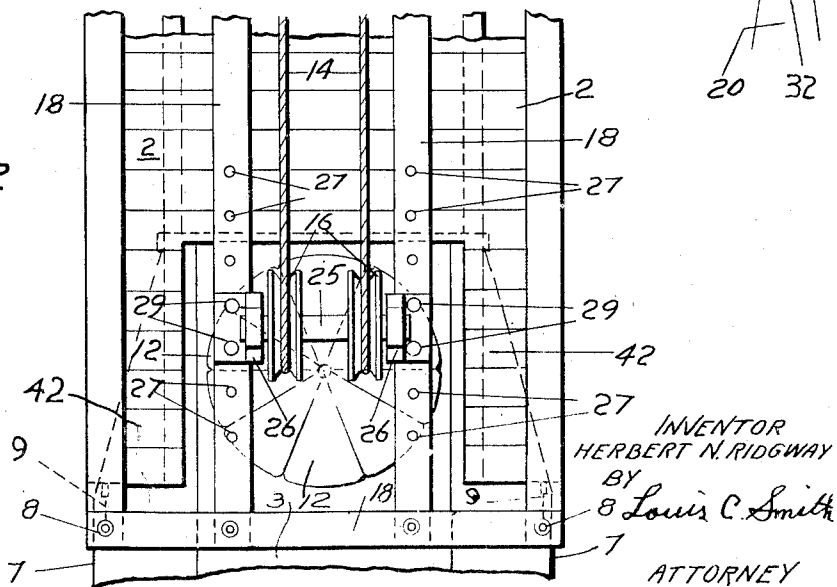


FIG. 2



INVENTOR
HERBERT N. RIDGWAY
BY
8 Louis C. Smith
ATTORNEY

Jan. 29, 1957

H. N. RIDGWAY

2,779,596

AMUSEMENT SLIDE

Filed Feb. 6, 1956

3 Sheets-Sheet 2

FIG. 3

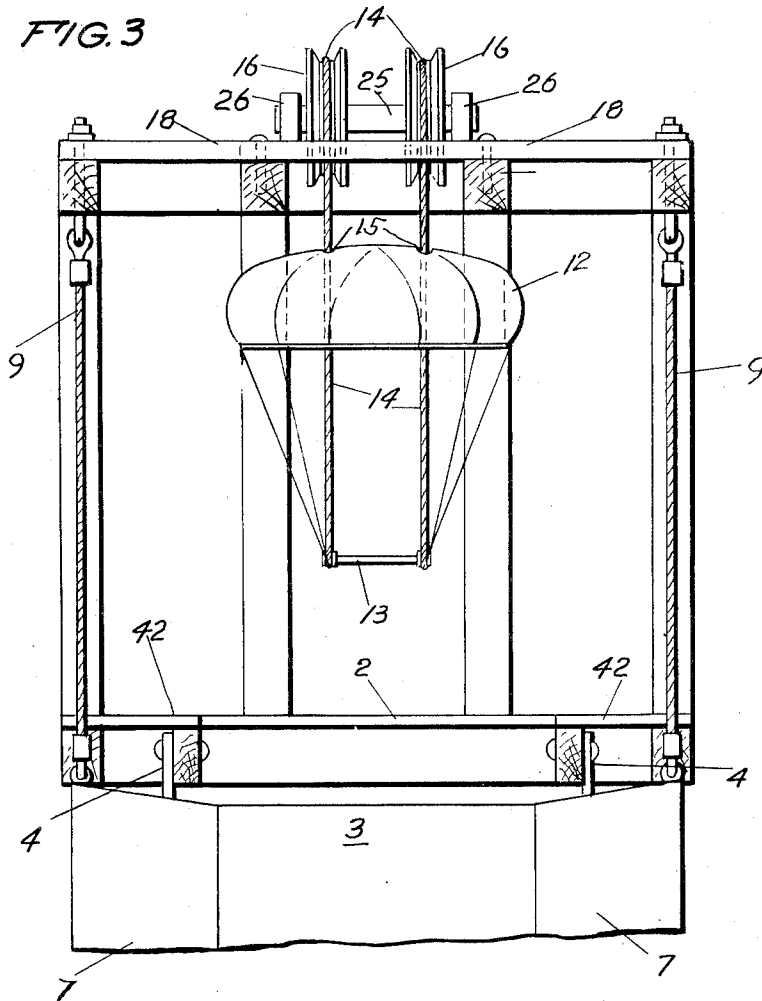


FIG. 6



INVENTOR
HERBERT N. RIDGWAY

BY *Louis C. Smith*

ATTORNEY

Jan. 29, 1957

H. N. RIDGWAY
AMUSEMENT SLIDE

2,779,596

Filed Feb. 6, 1956

3 Sheets-Sheet 3

FIG. 4

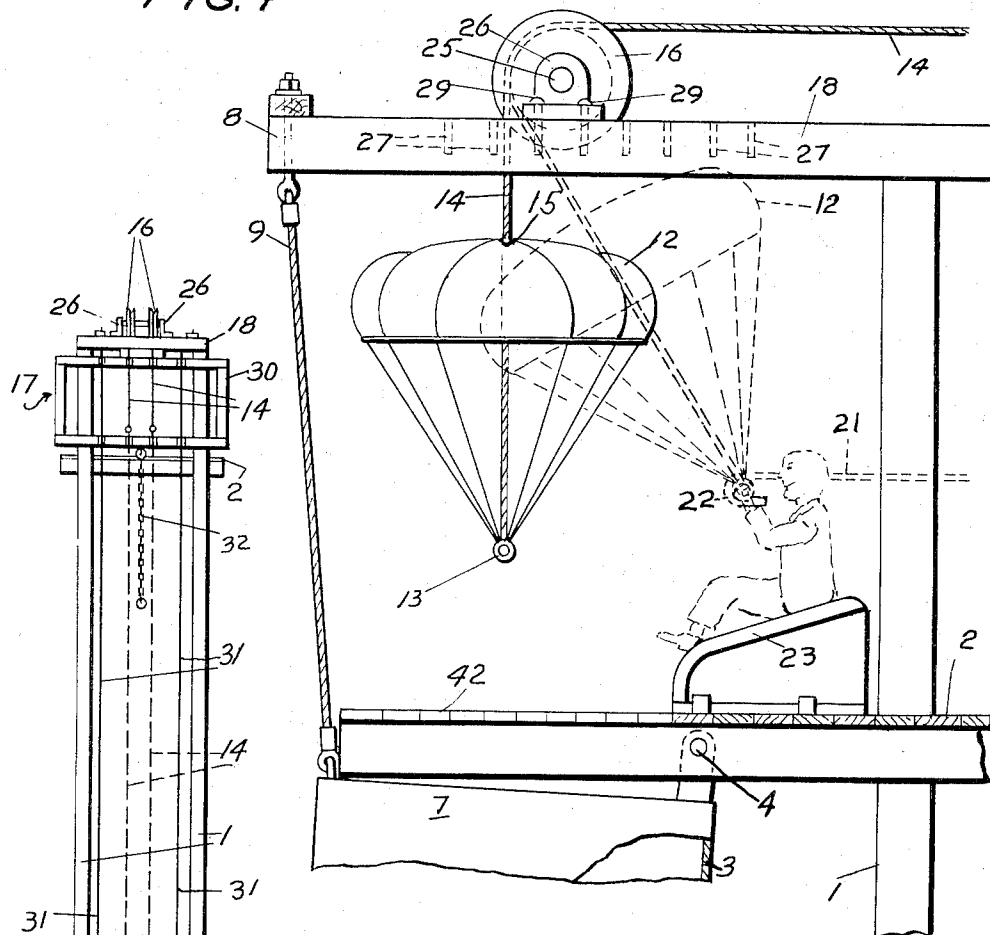
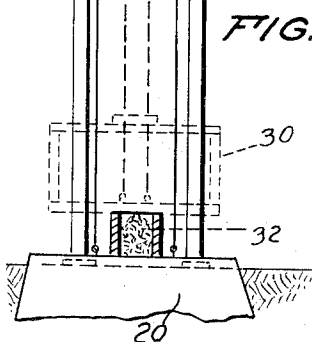


FIG. 5



INVENTOR
HERBERT N. RIDGWAY

BY *Louis C. Smith*
ATTORNEY

1

2,779,596

AMUSEMENT SLIDE

Herbert N. Ridgway, Winthrop, Mass.

Application February 6, 1956, Serial No. 563,573

5 Claims. (Cl. 272—56.5)

This invention relates to an amusement device on the order of that shown in my U. S. Patent #2,705,144, dated March 29, 1955, and has for its object to provide the person using it with a sensation similar to that experienced by a parachutist when making a parachute jump.

The device shown in said patent includes a tower having a platform at its upper end and a landing element of sheet steel or other similar material which is secured at one end to the tower near the top and at the other end to a landing platform on the ground, the sheet steel element being supported at its ends only and being of such a length that it will hang between its supports in a catenary like curve.

In the construction shown in the patent each person using the device is released from a point above the upper end of the landing element and experiences a free gravitational movement from the point of release to the upper portion of the landing element, such person then sliding down the landing element to the lower end thereof.

One object of the present invention is to provide an amusement device of this type with a captive parachute which the person at the top of the tower may grasp so that when he steps off from or is released from the platform his gravitational descent is retarded by the parachute.

A further object of the invention is to provide means whereby when the person approaches or has reached the lower end of the chute and releases the parachute, it will be automatically returned to its normal position at the top of the tower ready for use by the next customer.

Other objects of the invention are to provide improvements in an amusement device of this type which will be more fully hereinafter set forth and then pointed out in the claims.

In the drawings:

Fig. 1 is a side view of an amusement device embodying the invention;

Fig. 2 is an enlarged plan view of a portion of the platform at the top of the tower and showing the parachute in its retracted position ready for use;

Fig. 3 is a front view of the upper portion of the tower illustrating the parachute in its raised condition;

Fig. 4 is a view illustrating a modified form of the invention;

Fig. 5 is a rear view of the device looking toward the left hand, Fig. 1;

Fig. 6 shows a parachute positioning device.

The device comprises a tower 1 of any desired height which has at its upper end a platform 2 from which patrons are released for the simulated parachute jump. 3 indicates a landing element in the form of an elongated sheet of steel or other suitable material which is pivotally mounted at its upper end to the tower as indicated at 4 and is pivotally mounted at its lower end to a support element 5 located at ground level and as indicated at 6. This landing element is provided with side wings 7 similar to those shown in my above mentioned patent and which may be of canvas or other suitable flexible material, each side element being secured at its lower edge to the edge

2

of the steel chute and extending upwardly and outwardly therefrom to prevent persons descending the chute from sliding off from it sideways. The upper end of each wing 7 is connected to a portion 8 of the tower by means of a flexible connection 9, and at the lower end each wing is connected to a suitable anchoring post 10 by means of a yielding flexible connection 11.

The parts thus far described are quite similar to the similar parts illustrated in my above mentioned Patent #2,705,144. The present device, however, comprises a captive parachute 12 which is normally located above the platform 2 and over the upper end of the landing element 3, said parachute having a bar or handle 13 at its lower end which may be grasped by the person using the device, and which operates to retard the descent of such person when he steps off from or is released from the upper platform.

The parachute 12 has two flexible cords 14 attached to the ends of the bar 13 and which extend upwardly through openings 15 in the body of the parachute and over direction pulleys 16 mounted on the top of the tower, said cords being attached at their ends to a counterweight 17 which is sufficient to overbalance the weight of the parachute itself, but which is insufficient to counterbalance the combined weight of the parachute and a person supported by the bar 13. The direction pulleys 16 are mounted on the upper portion 18 of the frame above the platform 2 and the cords 14 are of a length so that when the parachute is in its raised position, as shown in Fig. 1, the counterweight 17 will be resting on a support 20.

When it is in its raised position the parachute is placed so that a person standing on the front of the platform 2 may grasp the handle 13 of the parachute and, after having done so, if said person steps off from the platform his weight added to that of the parachute overbalances the weight of the counterweight 17 and such person will descend by gravity downwardly onto the upper portion of the landing member 3. When such person has contacted with the landing member 3, he will slide down such member to the lower end thereof where he will come to rest. When he releases the parachute the counterweight 17 will be operative to return the parachute to its elevated position ready for use by another patron.

In order to make it easy for the person on the platform to obtain a good grip on the handle 13 an attendant may use a parachute positioning stick 21 having a curved end 22 and by hooking the curved end 22 over the handle such attendant may pull the handle portion of the parachute into easy reach of a person standing on the edge of the platform.

The attendant will, of course, disengage the stick 21 from the parachute before the person using it actually begins his parachute descent.

In Fig. 4 I have shown a modification of the invention wherein the person who is about to make the parachute descend will sit on a seat element 23 located at the edge of the platform and while so seated the attendant will swing the handle portion of the parachute toward the patron so that he can readily grasp the handle, as shown in Fig. 4. When he has done so, the patron may slide off from the seat 23 over the upper end of the landing member and as soon as the weight of the person comes onto the parachute the latter will begin to descend as above described, thus giving the patron the exhilarating experience of a parachute jump.

The seat 23 may be made adjustable on the platform so that the position of the person about to make the parachute jump may be adjusted horizontally into positions located at different distances from the edge of the platform.

The direction pulleys 16 shown in Fig. 4 may be adjustable horizontally on the supporting member 18 so

3

as to place the parachute, when in its normal raised position, at different distances from the edge of the platform 2. By adjusting the pulleys 16 to the left in Fig. 4, the patron using the device will have an increased free gravitational movement before he contacts with the sheet metal member 3 of the chute or slide.

The direction pulleys 16 are made in pairs and comprise the front pair directly over the end of the landing element and a rear pair over the counterweight. The pulleys of each pair are mounted on a shaft 25 which is supported in two bearing elements 26 that are mounted on the part 18 of the tower. Each bearing member 26 is secured to the supporting member 18 by means of two bolts 29 and said supporting member 18 is provided with a series of openings 27 to receive such bolts so that the bearing members 26 may be readily placed in various positions horizontally of the support 18.

I have stated above that the counterweight 17 is sufficient to overbalance the weight of the parachute itself so that when any patron who has taken the parachute jump releases the parachute at the lower end of the slide or chute or at any other point in his descent the counterweight will return the parachute to its raised position. In order to ease or cushion somewhat the return movement of the parachute, I propose to make the counterweight in two parts which include the main part 30 that moves up and down on guides 31 extending from the top of the tower to the base and an auxiliary part 32 in the form of a chain which is secured to and depends from the main part 30.

When the counterweight descends after the patron using the device has released the parachute and the lower end of the chain reaches the ground, said chain, link by link, will come to rest on the ground, thereby gradually reducing the overall weight of the counterweight, with the result that the speed of the parachute as it approaches its upper end will be gradually decreased. When the counterweight is in its lowered position with the parachute in its raised position, the chain is resting on the base 20 in a collapsed condition, as shown in dotted lines Fig. 5, so that the actual weight holding the parachute in its raised position is the weight of the main part 30.

As a patron who has grasped the handle 13 of the parachute begins his parachute descent, the rising movement of the main part of the counterweight will cause the chain to be suspended from the said main part, and thus the combined weight of the main part 30 and the chain 32 is operative as a partial counterbalance for the combined weight of the parachute and the patron clinging thereto.

When the parachute is released and returns to its elevated position, the collapsing of the chain as the counterweight approaches the support 20 will gradually reduce the counterweighting effect and thus the stopping movement of the counterweight will be somewhat cushioned.

The tower 1 may be provided with any suitable means for the patrons to gain access to the platform 2. As herein shown, said tower is provided with a series of stairways 40, but an elevator or any other suitable hoisting device may be used for taking the patrons to the platform 2. As shown in Fig. 2, the platform 2 may be formed with extensions 42 located at each side of the

4

upper end of the landing element 3, in which case the initial downward movement of the patron and his parachute will be between the two platform extensions.

I claim:

1. An amusement device comprising a tower, an elevated platform thereon, a landing element in the form of an elongated flexible sheet, means connecting one end of the landing element to said tower at an elevated position directly below the platform, anchoring means supporting the other end of the landing element at a lower level whereby said landing element assumes a catenary curve with its upper end having a position slightly inclined to the vertical and its lower end having a position slightly inclined to the horizontal, a captive parachute having a hand-hold designed to be grasped by a person on the platform, a counterbalance member connected to the parachute and having a weight sufficient to slightly overbalance the weight of the parachute and by which said parachute is normally held in its elevated position within reach of a person on the platform, whereby when such person grasps the hand-hold of the parachute and moves off from the platform his weight, added to that of the parachute, will overbalance the counterweight member and he, while still grasping the parachute, will descend onto the landing element and slide down the same toward the lower end thereof, and when he releases the parachute it will be returned by the counterweight member to its normal elevated position.

2. An amusement device as defined in claim 1 in which a guide pulley is mounted on the tower above the normal elevated position of the parachute and the latter is connected to the counterweight member by a flexible connection which passes over said pulley.

3. An amusement device as defined in claim 1 in which a guide pulley is mounted on the tower above the normal elevated position of the parachute and is adjustable in a horizontal direction, and the counterweight is connected to the parachute by a flexible connection which passes over said pulley, whereby the length of the free gravitational descent of a person using the device may be varied by adjusting said pulley.

4. An amusement device as defined in claim 1 and which includes means for cushioning the return movement of the parachute.

5. An amusement device as defined in claim 1 in which the counterweight member comprises a main section having a fixed weight and an auxiliary section in the form of a collapsible member suspended from the main section and which gradually collapses as the counterweight approaches its lowest position, whereby during the final return movement of the parachute, the counterbalancing effect of the counterweight member gradually decreases.

References Cited in the file of this patent

UNITED STATES PATENTS

915,631	Soria et al. -----	Mar. 16, 1909
2,102,522	Eichelgrun -----	Dec. 14, 1937
2,374,627	Strong -----	Apr. 24, 1945
2,705,144	Ridgway -----	Mar. 29, 1955