H. N. RIDGWAY.

AMUSEMENT APPARATUS.

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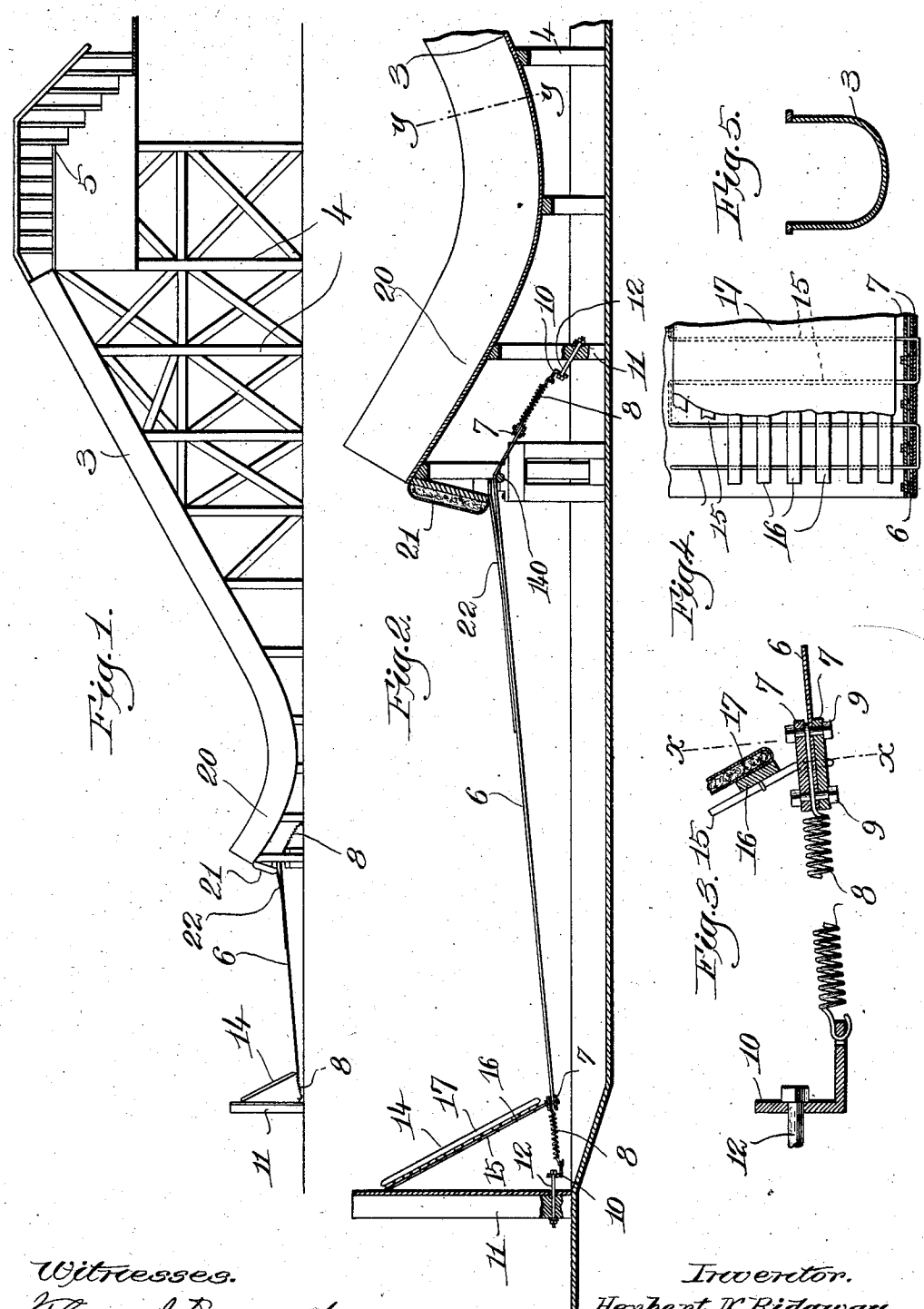
1,027,437. **Patented May 28, 1912.**



Witnesses.
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UNITED STATES PATENT OFFICE.

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AMUSEMENT APPARATUS.

1,027,437. Specification of Letters Patent. Patented May 28, 1912.

Application filed August 5, 1907. Serial No. 387,011.

To all whom it may concern:

Be it known that I, HERBERT N. RIDGWAY, a citizen of the United States, residing at Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Amusement Apparatus, of which the following description, in connection with the accompanying drawing, is a specification, like letters on the drawing representing like parts.

This invention relates to an amusement apparatus and especially that type of such apparatus which includes a chute or inclined plane down which persons may slide.

The embodiment of the invention herein shown is especially designed for persons to slide down in a sitting posture, and the object of the invention is to provide a novel form of such a chute or slideway, and also a novel mat or landing place on which the persons are received when they slide off from the discharge end of the chute.

In the drawings, wherein is illustrated one embodiment of my invention, Figure 1 is a side view of a device embodying said invention; Fig. 2 is an enlarged vertical sectional view through the lower end of the chute and the mat on which the persons land; Fig. 3 is an enlarged section detail of one end of the mat; Fig. 4 is a section on the line *x*—*x*, Fig. 3, looking toward the left; Fig. 5 is a section through the chute on the line *y*—*y*, Fig. 2.

The chute herein shown is especially designed for persons to slide down in a sitting posture and without the use of any support other than the chute on which to sit. I prefer to make the chute with a perfectly smooth bottom and of substantially U-shape in cross section, as shown in Fig. 5, so that it will be impossible for a person to fall off the side of the chute while in the act of sliding down it. The chute is designated generally by 3. It is arranged at a suitable inclination to permit persons using it to slide rapidly down it, and it is supported on any suitable supporting structure 4. The surface of the chute is preferably made perfectly smooth so as to afford as little friction as possible. At the upper end of the chute a platform or passageway 5 is arranged to permit persons to pass to the chute, and at the lower end of the chute I propose to place a yieldingly-sustained mat or other structure on to which the persons may land after their journey down the chute, and which will be made of such a construction as to prevent such persons from becoming injured in alighting. The mat I have herein shown is designated 6 and it may be made of any suitable material, although preferably I will use some flexible material. I have found from practice that a construction of rubber and canvas makes a satisfactory and durable mat, especially when the mat is built up of alternate layers of rubber and canvas. The mat is yieldingly supported so as to form a yielding and flexible platform for the persons to light on. The persons sliding down the chute will have a motion in the direction of the length of the chute as well as a downward motion at the time that they strike the mat. In other words, they will be moving in a downwardly-inclined direction at such times. In order that the mat may receive the persons discharged from the chute without giving the latter any unnecessary jar, I propose to support said mat so that it can yield in the direction of the length of the chute and thus move slightly with the persons when they strike thereon, and I also propose to support the mat so that the portion thereof which is immediately adjacent the chute will be held from downward yielding movement while the central portion of the mat may yield downwardly. The end of the mat farthest from the discharge end of the chute is clamped between two clamping bars 7 and these clamping bars have secured thereto a plurality of contracting spiral springs 8 which are in turn secured to a cross bar 10 that is connected to fixed supports 11 by means of the bolts 12. The other end of the mat extends under the chute and is also clamped between clamping bars to which contracting spiral springs 8 are connected, said springs in turn being secured to a cross bar 10 that is secured to the fixed supports 11 by means of bolts 12. I have provided means for supporting the mat against vertical movement at points between the spring connections 8 at each end, which means are such as to permit a slight longitudinal movement of the mat. Situated underneath the chute near the discharge end is a fixed rest or support 140 preferably in the form of a rod or bar over which the mat

passes and on which it loosely rests. This bar prevents vertical yielding movement of the portion of the mat resting thereon while permitting longitudinal movement thereon as the springs 8 stretch or contract. At the opposite end the mat is supported against vertical movement by means of a suspender 14 which is fastened at its upper end to the fixed supports 11 and at its lower end is secured to the mat in some suitable way at a point inside of the springs 8. This suspender may also be conveniently used as a back stop to prevent persons being thrown against the fixed supports 11, and I have herein shown it as composed of slats 16 which are secured to lengths of wire or cord 15 which are connected at their upper ends to the fixed support 11 and at their lower ends to the clamping bars 7. These slats may be provided with a padding 17 of any suitable material. As herein shown the cord 15 is threaded back and forth through apertures in the clamping bars 7 as clearly seen in Fig. 4. This construction provides a back stop which is yielding in its nature and also serves as a support for the end of the mat which prevents vertical movement thereof. It will thus be observed that while the mat is yieldingly supported by the springs 8 which permit a longitudinal movement of the mat, yet the mat is held at each end against vertical movement at points inside of the springs 8. When a person alights on the mat it will give longitudinally slightly to thus gradually break the movement of the person in the direction of the length of the chute and the springs 8 will allow the portion of the mat on which the person alights to yield downwardly sufficiently to break his fall. The mat will thus have two movements, one vertically and the other longitudinally, and the combined movement is such as to cushion the alighting movement of the person in a very effective way.

The particular manner in which the back stop 14 is made is not essential to my invention.

The chute 3 is formed at its lower end with the upwardly-directed portion 20, and this portion 20 is arranged at substantially the same inclination as, but in an opposite direction from, the main body of the chute. The chute is also substantially uniform in width from one end to the other, and the length of the chute is such that when a person slides down it, he will acquire sufficient momentum to be carried off the end of the portion 20 in an upward direction and the person will often be thrown some distance from the delivery end of the chute, thus adding greatly to the amusement gained from using the chute or from watching others use it.

21 is a pad situated at the lower end of the chute directly beneath the latter which covers the space between the lower end of the chute and the mat and prevents a person from getting caught in said space.

22 is a supplemental mat which may be placed on top of the mat 6 at the point where the persons generally land. This supplemental mat is of leather and is for the purpose of protecting the main mat 6 from being injured by the heels of persons using the mat.

An apparatus as thus arranged will give the person using it great exhilaration and exercise.

I have not attempted to show herein all embodiments of my invention, but have selected merely the preferred embodiment for illustrating the principle of the invention.

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

1. In an amusement apparatus, the combination with a chute arranged for persons to slide down, said chute having its lower end directed upwardly and being of sufficient length so that persons sliding down the chute will acquire enough momentum to carry them off the upturned end thereof, of a mat beneath the discharge end of the chute, means to sustain said mat for yielding movement in the direction of the length of the chute, and means acting on the mat near each end thereof to prevent vertical movement thereof at such points.

2. In an amusement apparatus, the combination with an inclined chute adapted for persons to slide down and having an upwardly-directed lower end, of a mat beneath the lower end of the chute, springs connected to each end of the mat to support the same for yielding movement longitudinally, and a rigid rest situated beneath the lower end of the chute and on which the mat rests loosely.

3. In an amusement apparatus, the combination with a chute having an upwardly-turned lower end, of a mat to receive persons discharged from the chute, means to yieldingly sustain the end of the mat adjacent the chute, fixed uprights at the other end of the mat, bolts carried thereby, a bar extending transversely of the mat and sustained by the bolts, springs interposed between said bar and the mat, and a flexible back stop secured at its upper edge to said fixed supports and at its lower edge to the mat.

4. In an amusement apparatus, the combination with an inclined chute having an upwardly-directed lower end, of a rest extending transversely to the chute and situated beneath the discharge end thereof, a mat extending over said rest, a fixed support beneath the chute, springs interposed between said mat and said fixed support, means to yieldingly sustain the opposite end of the

mat, and a vertically-arranged pad 21 situated at the lower extremity of the chute between the latter and the portion of the mat which extends over the rest.

5. In an amusement apparatus, the combination with a chute having an upwardly-turned lower end, of a mat to receive persons discharged from the chute, springs connected to the ends of the mat, a bar extending transversely across the mat beneath the same underneath the discharge end of the chute and on which the mat loosely rests, fixed supports at the ends of the mat, and a flexible back stop secured at its upper end to said supports and at its lower end to the mat.

In testimony whereof, I have signed my name to this specification, in the presence of two subscribing witnesses.

HERBERT N. RIDGWAY.

Witnesses:
LOUIS C. SMITH,
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