March 1, 1938.

A. SPILLMAN

2,109,555

AMUSEMENT DEVICE

Filed Oct. 8, 1937

2 Sheets-Sheet 1

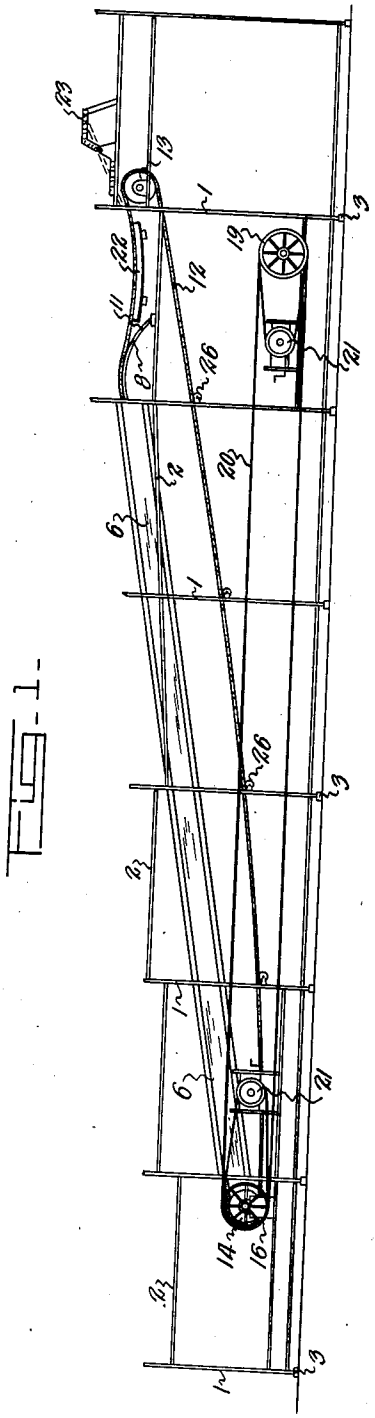

Fig-1-

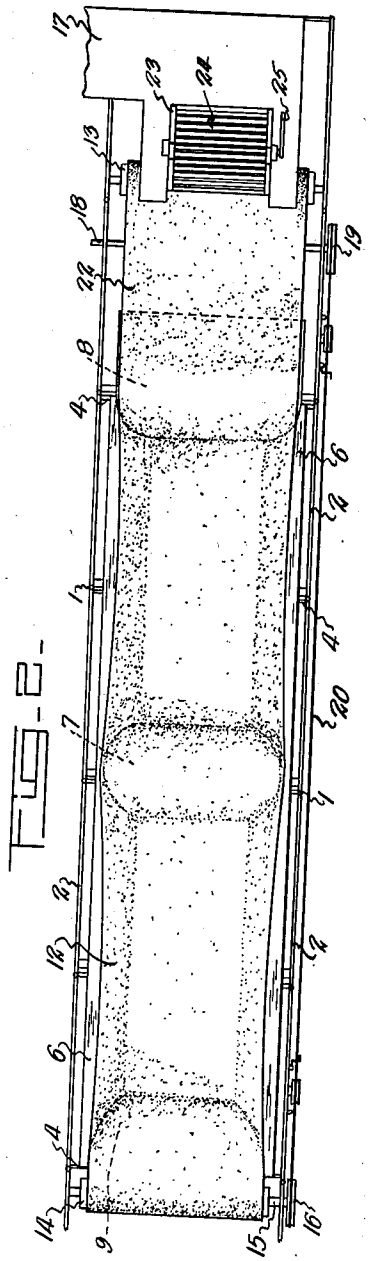

Fig-2-

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AMUSEMENT DEVICE

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Fig. 3.

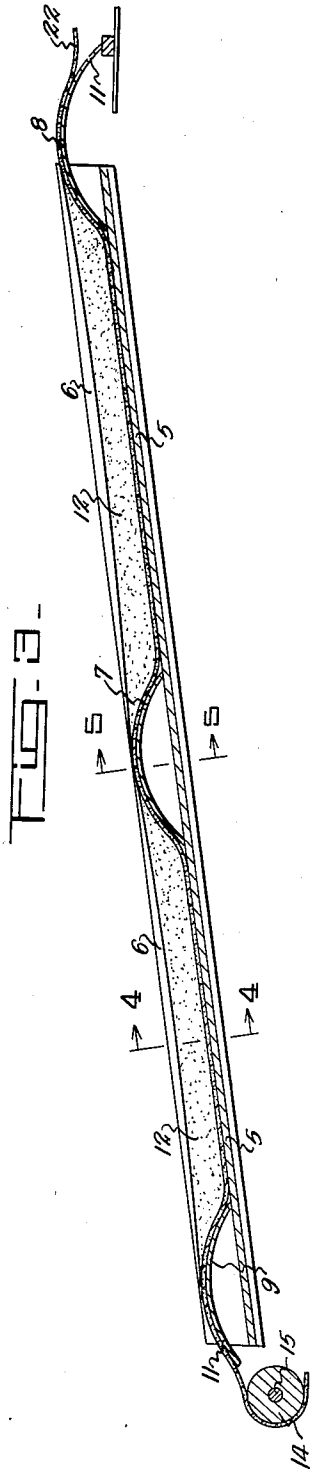


Fig. 5.

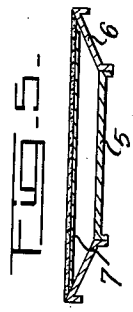


Fig. 6.

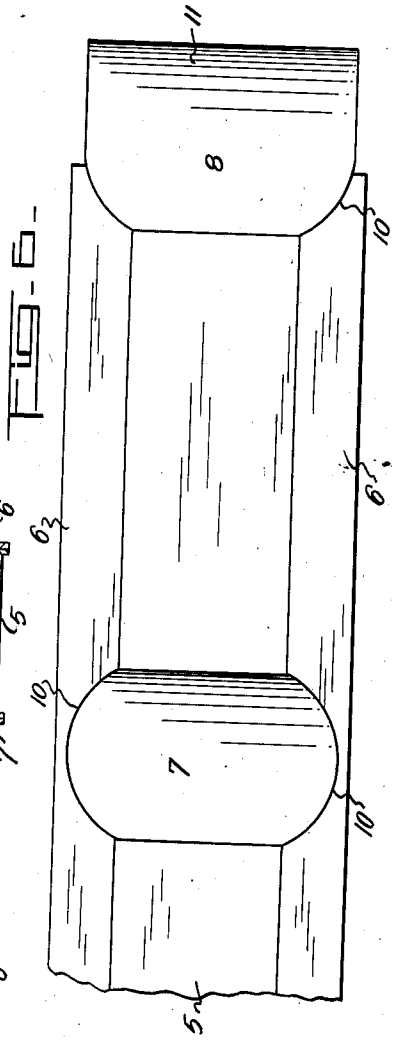
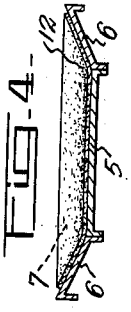


Fig. 4.



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Patented Mar. 1, 1938

2,109,555

UNITED STATES PATENT OFFICE

2,109,555

AMUSEMENT DEVICE

Albert Spillman, North Tonawanda, N. Y.

Application October 8, 1937, Serial No. 167,962

4 Claims. (Cl. 104—53)

My invention relates to improvements in passenger carrying amusement devices, and the object of my invention is to provide a downwardly inclined endless belt which is carried over driving rollers at its lower end and which belt is provided to receive passengers, who are precipitated thereon in a seated position, and in which construction the belt is supported throughout its passenger carrying portion upon a downwardly inclined deck on the upper face of which the belt slidably rests.

Another object of my invention is to furnish such inclined deck with a plurality of humps which extend across the deck underneath the belt and over which the belt rides to provide the passengers with a mirth-provoking shock.

A further object of my invention is to construct my deck of trough shaped form so that the belt assumes a trough shape in travelling thereover so that the passengers are carried upon the central portion of the belt well away from any possible contact with the stationary deck supporting structure.

With the foregoing and other objects in view, as shall hereinafter appear, my invention consists of a passenger carrying amusement device constructed and arranged all as hereinafter more particularly described and illustrated in the accompanying drawings, in which,

Figure 1 is a side elevational view of my device with its supporting structure.

Figure 2 is a plan view thereof.

Figure 3 is a longitudinal vertical sectional view through the inclined deck and belt portion supported thereon.

Figure 4 is a cross-sectional view through the deck and belt, being taken through the line 4—4, Figure 3.

Figure 5 is a cross-sectional view through the deck, a hump and the belt, being taken through the line 5—5, Figure 3, and,

Figure 6 is a plan view of a fragmentary portion of the deck, the belt not being shown thereon.

Like characters of reference indicate corresponding parts in the different views of the drawings.

My belt deck and supporting structure therefor is preferably of a portable nature, that is, capable of being readily taken apart and assembled for movement from one amusement park to another. The supporting structure comprises a plurality of vertical stand pipes 1 which are positioned in spaced relationship and connected together by horizontal members 2 which are detachably connected to the stand pipes 1. The lower ends of the stand pipes 1 are adjustably mounted for height upon jack stands or bases 3 so that any suitable adjustment may be obtained in adapting the structure to any unevenness in the ground on which it is erected.

The inclined belt supporting deck is carried upon a plurality of cross members 4 which extend between opposite stand pipes 1. The deck is inclined at a moderate angle substantially as shown in Figure 1, and comprises a central portion 5 and two outwardly and upwardly inclined side portions 6. Upon reference to Figure 4, it will be seen that the relationship of the central portion 5 and the side portions 6 provide a deck of trough shape. The deck is preferably made of wood, the upper face of which is finely finished in order to present a smooth surface over which the belt will freely slide.

In order to provide a mirth-provoking thrill or shock to the passengers carried downwardly on the belt over the deck, I furnish the deck with a plurality of transversely extending humps which gently bump the passengers in their downward progress. In my device, as illustrated, I provide a deck with three humps, that is, a central hump 7 and two end humps 8 and 9. The humps are preferably made of sheet metal and are arched in respect to the central portion 5 of the deck. To secure the humps in place, screws or bolts are employed and pass through the edge portions of the sheet metal into the bottom and side portions of the deck. The side edges 10 of the humps are curved so that they merge into the upper face of the deck portion 6. The end humps 8 and 9 are so positioned upon the deck that they project over its ends to provide belt receiving slopes 11 whereby the belt can smoothly run on to and off of the deck.

The belt 12 is endless and is preferably made of rubber reinforced with cotton. A pair of upper and lower belt receiving rollers 13 and 14 are suitably journalled upon the supporting structure to carry the belt. The shaft 15 of the lower 14 projects through one side of the supporting structure to carry a cable receiving pulley 16. As the device described herein is operated in conjunction with other mechanically operated amusement contrivances situated to discharge passengers on to a platform 17 at the upper end of the belt, the source of power for driving the belt and the other contrivances is situated at the platform end of the supporting structure. A live shaft 18 extending from the source of power is provided to extend across the supporting

structure underneath the upper end of the belt and is furnished with a pulley 19 which drives the pulley 16 through the medium of an endless driving cable 20. The driving cable is also passed over a pair of take-up pulleys 21 which are adjustably carried upon the sides of the supporting structure. By this construction, as illustrated in Figure 1, the cable is passed twice over each pulley 16 and 19 and can be adjusted in tension by moving either of the adjustable pulleys 21 towards or away from the respective pulleys 16 and 19.

The belt 12 is, of course, run comparatively slack so that in travelling over the deck it assumes the general configuration of the deck surface, that is, being of substantially trough form and humped over the humps 7, 8 and 9. The upper belt roller 13 is spaced some little distance from the outer end of the hump 8 in order to provide a portion of belt on to which the passengers are precipitated. This belt portion is slidably supported upon a deck member 22 suitably positioned thereunder. The passengers are precipitated on the belt by means of the well known collapsible seat 23. Such seat 23 is formed of a plurality of freely rotatable rollers 24 and is so pivotally arranged that, upon actuation of the lever 25, the seat turns into an inclined platform, as indicated by dotted lines in Figure 1, and from which passengers freely roll on the rollers 24 on to the belt from where they are carried downwardly. The foot rest portion of the seat is positioned above the upper roller 13 and in close proximity thereto, so that the seated passenger passes directly from off the collapsed seat on to the belt. The lower or return portion of the belt is supported upon a plurality of transverse rollers 26 which are carried intermediately of the heights of the stand pipes 1.

My invention is of an extremely simple and practical nature in that, though the belt supports the passengers in their downward travel, yet the belt is not put to any wearing strain, as it is completely supported by the deck over which it slides and it is therefore not necessary to reinforce the belt in any way, such as by cross ribs, as has been heretofore done with similar types of apparatus, and furthermore by providing the deck of trough form with the consequent trough formation of the passenger carrying portion of the belt, I have furnished an amusement device in which there is little or no possibility of the passengers being accidentally brushed up against the stationary structure in their downward travel. The character of the belt ride can be readily altered by the addition or subtraction of the sheet metal humps, and as such sheet metal humps are comparatively light and may be readily fitted in any portion of the deck length, such changes can be effected very readily. Furthermore, by extending the outer portions of the humps at the ends of the deck, I provide curved portions over which the belt readily slides in moving towards or away from the deck.

Although I have shown and described a particular embodiment of my invention, it is to be understood that I can make any such changes and alterations as I may from time to time deem necessary, without departing from the spirit of my invention as set forth in the appended claims.

What I claim as my invention is:

1. In an amusement device of the character described, an endless passenger carrying belt, a deck upon which the passenger carrying portion of the belt is slidably supported, said deck supporting substantially the entire length of the passenger carrying portion of the belt, the passenger carrying portion of the belt resting upon the deck entirely across its width, and a plurality of transverse humps formed on the deck and over which the belt travels.

2. In an amusement device of the character described, an endless passenger carrying belt, and a trough shaped deck upon which the passenger carrying portion of the belt is slidably supported, said deck supporting substantially the entire length of the passenger carrying portion of the belt, the passenger carrying portion of the belt resting upon the deck entirely across its width and being also formed into trough shape as it passes thereover.

3. In an amusement device of the character described, an endless passenger carrying belt, a trough shaped deck upon which the passenger carrying portion of the belt is slidably supported, said deck supporting substantially the entire length of the passenger carrying portion of the belt, the passenger carrying portion of the belt resting upon the deck entirely across its width and being also formed into trough shape as it passes thereover, and a plurality of transverse humps formed on the deck and over which the belt travels.

4. In an amusement device of the character described, an endless inclined passenger carrying belt, an upper freely rotatable roller over which the upper end of the belt passes, a lower belt driving roller over which the lower end of the belt passes, an inclined trough shaped deck extending from the proximity of the upper roller into proximity of the lower roller and upon which the passenger carrying portion of the belt is slidably supported, the passenger carrying portion of the belt resting upon the deck entirely across its width and being also formed into trough shape as it passes thereover, and a plurality of transverse humps formed on the deck and over which the belt travels.

ALBERT SPILLMAN.