

E. STORM.

FLOOR AND CAR FOR AMUSEMENT PURPOSES.
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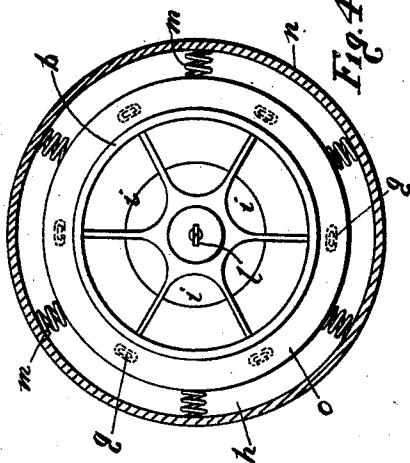
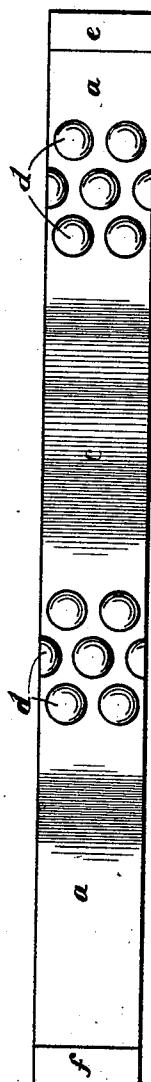
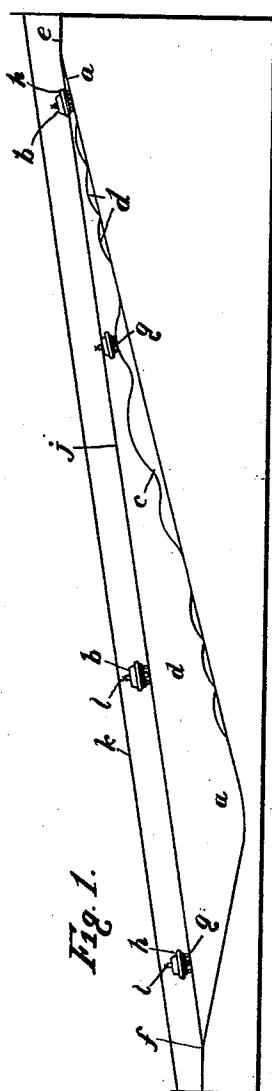


Fig. 2.

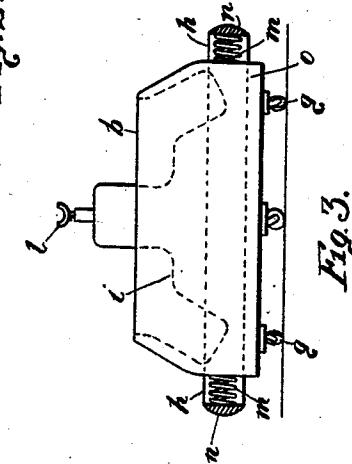


Fig. 4.

Fig. 3.

Witnesses:

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UNITED STATES PATENT OFFICE.

ERNEST STORM, OF EGGLESTON, VIA DARLINGTON, ENGLAND.

FLOOR AND CAR FOR AMUSEMENT PURPOSES.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERNEST STORM, a subject of Great Britain, residing at The Terrace, Eggleston, via Darlington, in the county of Durham, England, have invented certain new and useful Improvements in Floors and Cars for Amusement Purposes, of which the following is a specification.

My invention relates to amusement apparatus of that class comprising an inclined track or floor and a series of passenger cars for traveling thereover under the influence of gravity and in so doing being subjected, by a suitable construction of the floor or track, to bumps and rising and falling motions, whereby the passengers partake of the resulting amusing sensations. In such apparatus the track or floor is, for presenting the bumps, furnished with a series of transversely-arranged more or less straight barriers situated alternately at suitable intervals so that as the cars travel down the track or floor they successively strike or collide with each barrier, while for affording the rising and falling motions the track or floor is provided with undulations or "waves" over which the cars pass. Sometimes the portion of the track or floor between the barriers is flat, whereas at other times it is undulating or continuous with the other undulations, therefore in the former case the passengers experience at one stage the bumping sensation and at another stage the rising and falling sensations, and in the other case the passengers experience the two sensations concurrently. Further, in such apparatus the cars, which are generally made cylindrical or oval and of a tub-like character, run on casters, while for damping the effects of the bumps they are fitted with a buffer, usually in the form of a plurality of rubber studs or of a rubber ring.

My invention is directed both to the track or floor and to the cars with the object of lessening the discomfort of the bumping sensation, which is rather abrupt in the existing constructions, but without affecting the amusement to be derived.

Accordingly my invention relates to the construction and situation of the barriers of the track or floor, and to the construction and arrangement of the buffer of the cars, all as will be manifest from the accompanying drawings wherein my improvements are illustrated, and with reference to which I will now fully explain them, premising,

however, that of the figures:—Figure 1 is a diagrammatic side view of one complete form of apparatus embodying the invention; Fig. 2 is a plan of the track or floor thereof; Fig. 3 is a side sectional elevation of a car; and Fig. 4 is a sectional plan thereof.

Referring generally to the figures, *a* denotes the track or floor; *b*—*b* the cars; *c*—*c* the undulations or "waves" of the track or floor *a* and *d*—*d* the barriers thereof; *e* the starting platform of the track or floor *a* and *f* the destination platform of the same; *g*—*g* the casters of each car *b*, *h* its buffer and *i*—*i* its seats; *j* the return way with rope or other hauling arrangement *k* for the empty cars *b*—*b*; and *l* the haulage clip of the car *b*. All these parts are constructed and adapted for use in any known way with the exceptions I will now explain with regard to the barriers *d*—*d* and the cars *b*—*b*.

I make each barrier *d* circular in plan and segmental in vertical section, hence it may appropriately be termed "a round". By reason of this formation the collision of the car *b* with the barrier or "round" is rendered "easier", but without the bumping sensation being in any way impaired.

The car buffer *h*, which is clearly shown in Figs. 3 and 4, comprises a series of steel or like spiral springs *m*—*m* and a continuous cover or ring *n* of leather, rubber or other material. The cover or ring *n* is applied around the framing *o* of the car *b* near its base so as to constitute a housing for the springs *m*—*m* which are arranged radially at suitable distances apart. The springs *m*—*m* and cover or ring *n* are secured in position in any appropriate fashion. Thus by this construction of buffer *h* the benefit accruing to the construction of the barrier *d*—*d* is enhanced.

Though I have illustrated the track or floor *a* as a single construction, yet, of course, it may, as usual, be duplicated or otherwise arranged so that the cars *b*—*b* travel on each component in turn. Further, although I have depicted the undulations or "waves" *c*—*c* and the barriers or "rounds" *d*—*d* assembled in "banks" or clusters, yet they may be arranged to give the required sensations simultaneously. Again, if required each car *b* may be furnished with a brake.

What I claim is:—

1. An amusement apparatus comprising,

in combination, an inclined track or floor, barriers arranged on said track or floor, passenger cars traveling over said track or floor under the influence of gravity whereby they 5 are subjected to "bumps" by said barriers, and a buffer on said cars constituted by spiral springs and by a housing for said springs, substantially as described.

2. An amusement apparatus comprising, 10 in combination, an inclined track or floor, undulations or "waves" on said track or floor, barriers transversely arranged at intervals on said track or floor and constructed circular in plan and segmental in 15 vertical section or in the form of "rounds", and passenger cars traveling over said track or floor under the influence of gravity whereby they are subjected to rising and falling motions and to "bumps" through 20 the agency, respectively, of said undulations

or "waves" and of said barriers or "rounds", substantially as described.

3. An amusement apparatus comprising, 25 in combination, an inclined track or floor, passenger cars traveling over said track or floor under the influence of gravity, undulations or "waves" and barriers or "rounds" on said track or floor for, respectively, imparting to said cars rising and falling motions and "bumps", and a buffer on said 30 cars consisting of a series of radially-arranged springs and a ring applied around the framing of the car to constitute a housing for said springs, substantially as described.

ERNEST STORM.

Witnesses:

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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents,
Washington, D. C."