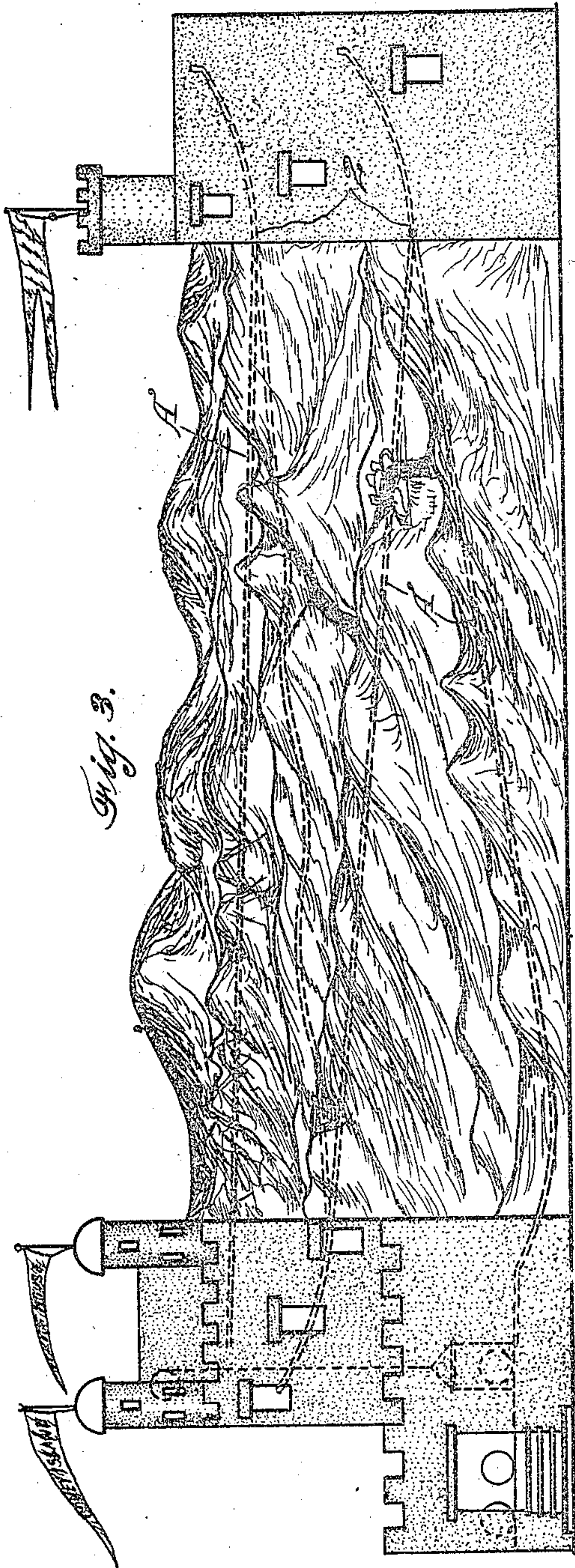


D. H. CLEGHORN.
AMUSEMENT APPARATUS.
APPLICATION FILED JUNE 29, 1909.

Patented Mar. 29, 1910.

953,459.



Witnesses:

F. E. Maynard.
J. K. Sherg.

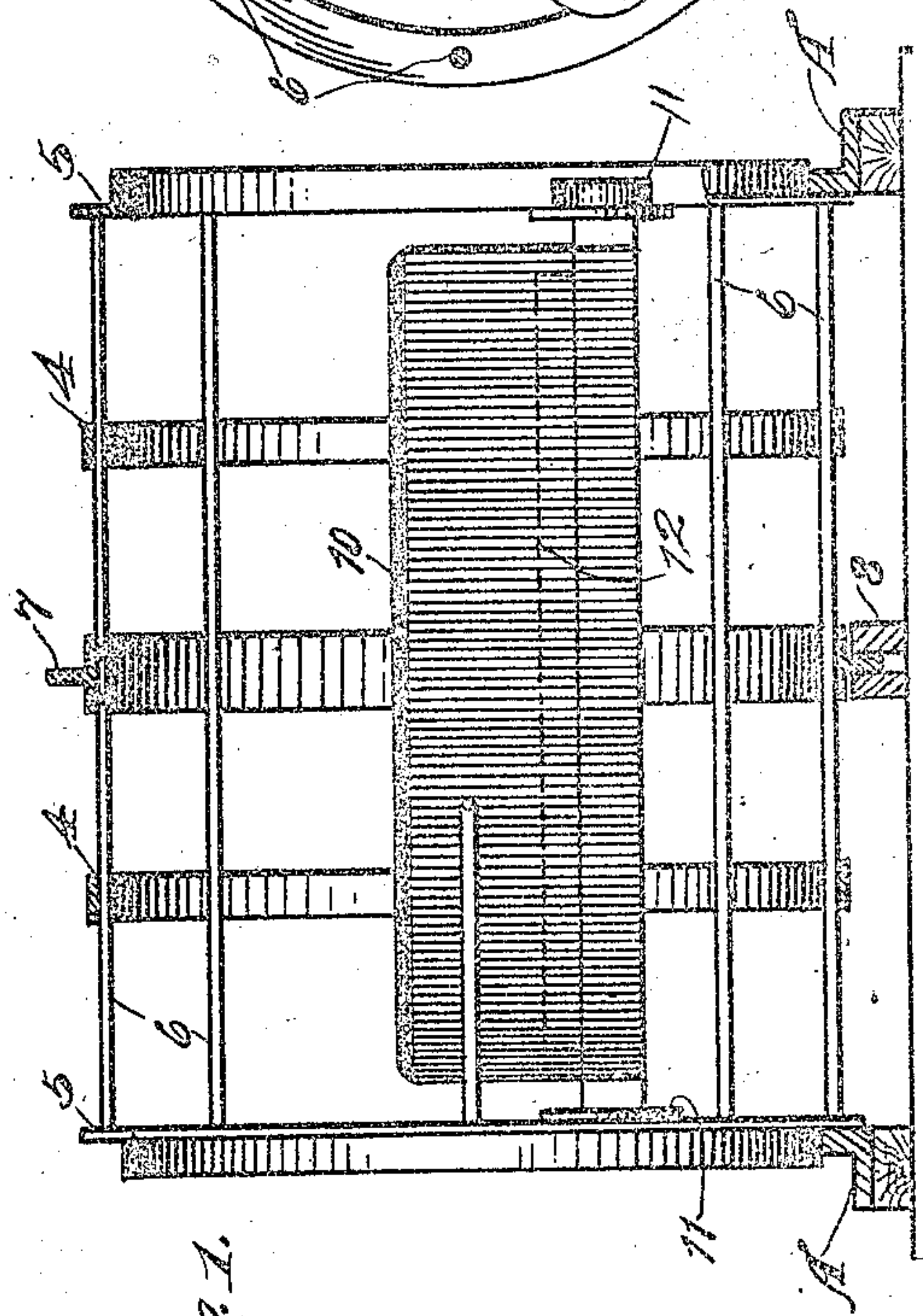
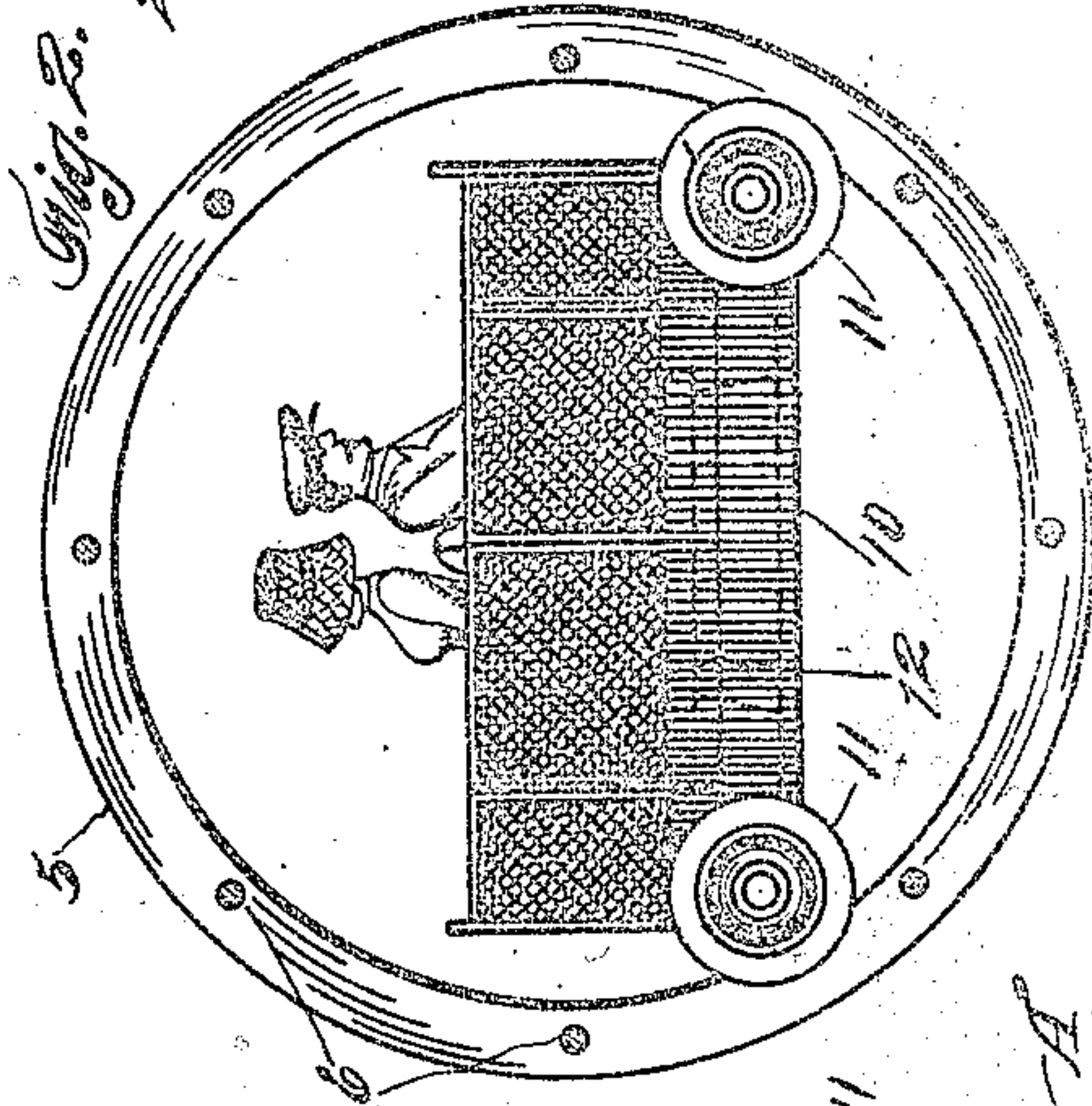
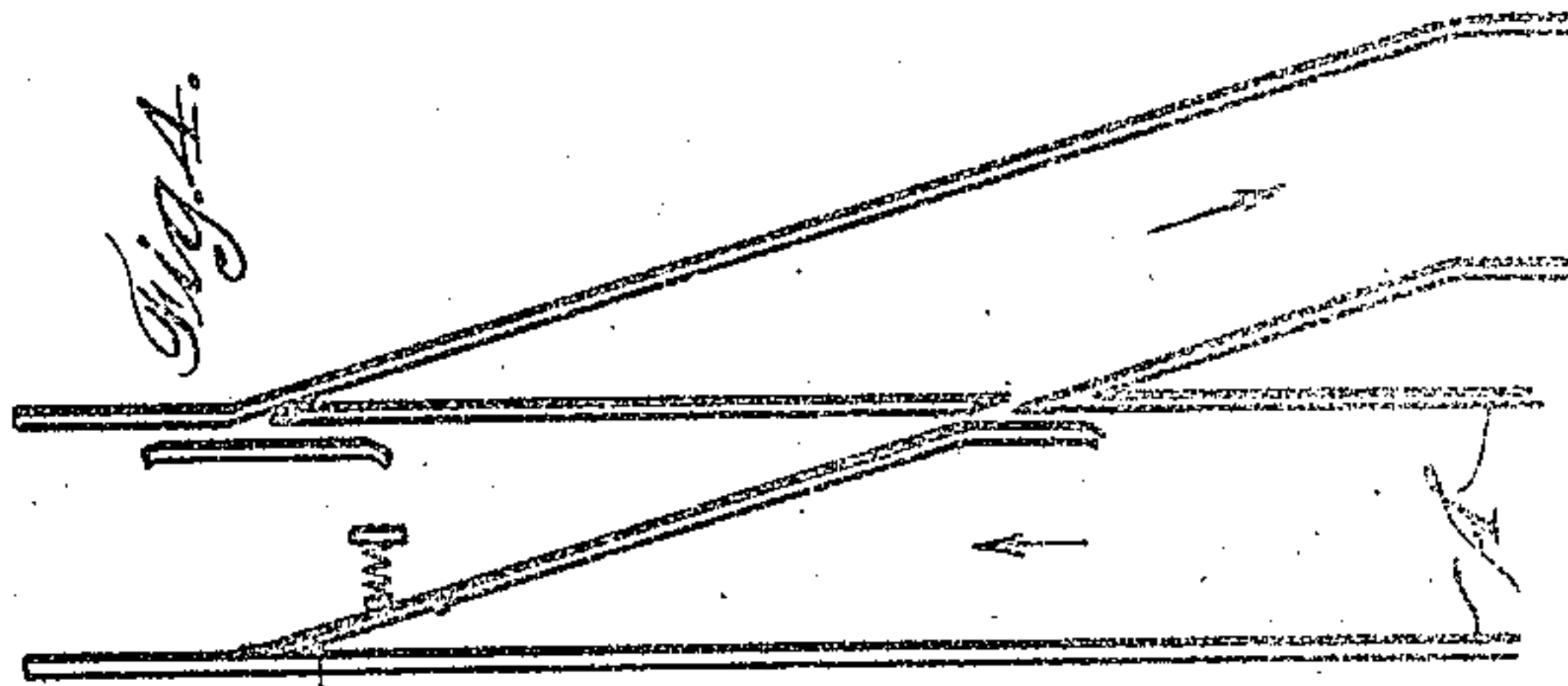


Fig. 1.

Inventor:
Douglas H. Cleghorn,
By Geo. H. Strong
his atty.

UNITED STATES PATENT OFFICE.

DOUGLAS H. CLEGHORN, OF OAKLAND, CALIFORNIA

AMUSEMENT APPARATUS.

953,459.

Specification of Letters Patent.

Patented Mar. 29, 1910.

Application filed June 29, 1909. Serial No. 505,073.

To all whom it may concern:

Be it known that I, DOUGLAS H. CLEGHORN, a citizen of the United States, residing at Oakland, in the county of Alameda and State of California, have invented new and useful Improvements in Amusement Apparatus, of which the following is a specification.

My invention relates to an apparatus for amusement purposes of that class in which a car or equivalent device is caused to travel by gravitation over a suitably prepared roadway.

It consists in the combination of mechanism, and in details of construction which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a view of the car in partial section, at right angles with Fig. 2. Fig. 2 is a transverse section showing the chair in end elevation. Fig. 3 illustrates one form of track arrangement. Fig. 4 is a plan of a switch.

It is the object of my invention to provide certain improvements in that class of apparatus, in which a traveling car or carriage is adapted to move by gravity over a prepared roadway; to provide means for the absolute safety of the apparatus; means by which changes of direction may be effected, and means for supporting the seat within the revoluble traveling portion without direct attachment thereto.

The roadway A may be made in any suitable or desired manner, preferably being sinuous, rising and falling; and it may have ornamental towers or stations at points in its course.

The tower at the starting point may be provided with elevating means by which the traveling apparatus can be raised to the highest point and placed upon the track. The track is especially designed to run a certain course, and it is raised at the end of this course by a gradual incline so that the traveling apparatus will come to a stop, then return by gravity to a point where it encounters an automatic switch 2. This switch throws it upon another line of track which may return directly, or in a roundabout way to any desired point, where it again encounters an incline which gradually brings it to a stop; thence returning down this incline it is again, by means of another automatic switch 2, diverted into another gravity line, and so on until it reaches the

lowest point, where it is preferably returned to a point near the elevator, so that it can be again raised and ready to start on the new course.

The car is made of cylindrical hoops or rings 4, with annular flanged rings 5. These are connected by horizontal bars 6 leaving open-work spaces between. In the center is an annular flange 7 of considerable width projecting beyond the periphery of the barrel. The flanged end rings 5 are adapted to travel upon the tracks A, and the flanges are of such depth as to practically retain the drum thus formed in position.

8 are parallel timbers fixed so as to have a central space between them, and the annular flange 7 projects into this space, which thus serves as a guideway to prevent undue end motion of the drum in turning corners or changing direction, and to maintain it safely upon the tracks. These timbers 8 are so constructed at the points where the automatic switches are placed, that the flange will be allowed to travel between similar guide timbers when a new direction is taken; thus always maintaining it in proper position.

In order to provide seats for passengers, I have shown a light structure 10 of such length as to extend across the diameter of the drum or barrel, and this is provided with wheels 11 which fit and travel upon the inside of the annular rings 5. The seats 12, of any suitable construction, are carried upon the structure 10. There is no connection between the seats, or the seat structure, and there is no axis or shaft in said drum, thus leaving a free space without obstruction to the passengers. The wheels 11 preferably run as high as possible on the interior of the drum, and are so guided as to prevent any danger of their leaving the drum.

The structure 10 may be in the form of a lattice or open-work fence or rail upon each side of the seat, which will prevent passengers from falling out; at the same time there will be no obstruction to the view from the open ends of the drum.

Having thus described my invention, what I claim and desire to secure by Letters Patent is—

1. The combination in a gravity railway, of a series of declining tracks, with automatic switches, a drum having the flanged rims adapted to travel upon the tracks, guide rollers centrally disposed between the

tracks, and an annular flange fixed to the drum adapted to travel between said guides.

2. In a gravity railway, a series of inclined return tracks, and corresponding centrally located guideways, said tracks having upward bends at the termination of each, and automatically operating switches at their junction, a device adapted to travel on said tracks, said device consisting of an open lattice-work drum having annular flanged rims at the ends fitting the tracks; and an annular centrally located flange fitting between the intermediate guides, a car fitting within the drum, said car having wheels adapted to travel upon the inner periphery of the drum flanges, and seats carried by the car.

3. In a gravity apparatus, an open drum composed of circular and longitudinal bars, annular flanged rings at the ends and a central annular flange adapted to travel upon the tracks, and between intermediate guides, a car structure having lattice-work sides, wheels adapted to travel on the interior of the flanges of the drum, and seats located centrally within the car.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

DOUGLAS H. CLEGHORN.

Witnesses:

WILLIAM J. WIGMORE,
LORD S. MÖLLER.