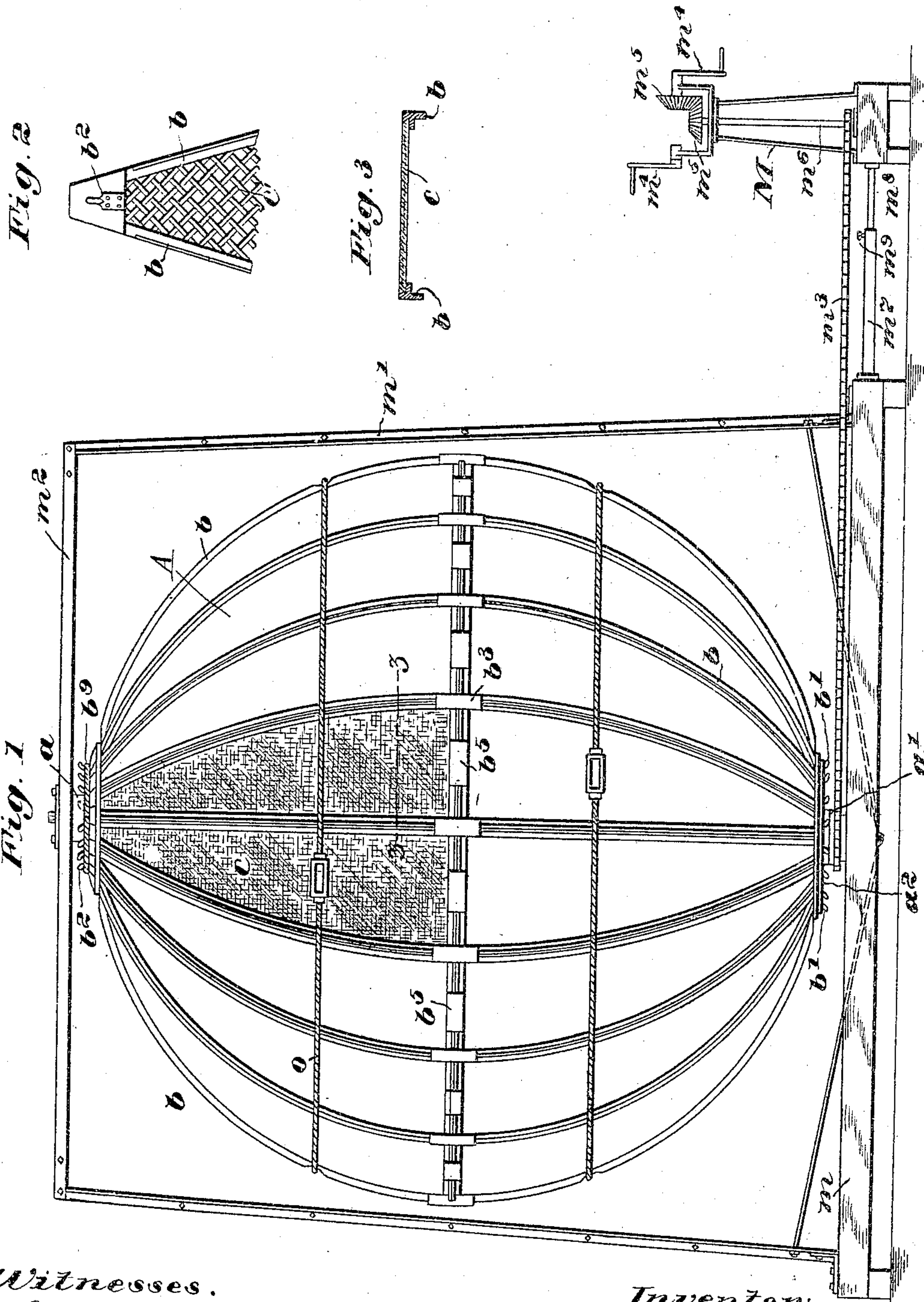


No. 764,800.

PATENTED JULY 12, 1904.

T. W. ECK.
AMUSEMENT APPARATUS.
APPLICATION FILED MAY 12, 1904.

NO MODEL.



Witnesses.
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UNITED STATES PATENT OFFICE:

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AMUSEMENT APPARATUS.

SPECIFICATION forming part of Letters Patent No. 764,800, dated July 12, 1904.

Application filed May 12, 1904. Serial No. 207,670. (No model.)

To all whom it may concern:

Be it known that I, THOMAS W. ECK, a citizen of the United States, residing at New York, county and State of New York, have invented
5 an Improvement in Amusement Apparatus, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

10 This invention aims to provide a novel amusement device or apparatus to be used by a rider of bicycles and the like.

Prior to my invention what is known as the "bicycle whirl" has been devised and used
15 consisting of a generally conical and sometimes in part cylindrical inclosure, usually of upright slats, in which the operator rides the bicycle in a circle, gradually climbing the sides of the whirl until he is riding around
20 with his body and machine nearly or quite in a horizontal plane, centrifugal force keeping him in position.

My present invention relates generally to an apparatus used in this manner and comprehends a spherical hollow whirl or cage within
25 which the rider visibly operates or performs. These, with other features of my invention, will be better understood from a description of an apparatus illustrating one embodiment thereof, it being understood, however, that
30 my invention is not limited to the particular embodiment here to be described.

In the drawings, Figure 1 in elevation illustrates generally an apparatus containing one
35 embodiment of my invention. Fig. 2 is a detail view of one of the sections of which the apparatus is composed, and Fig. 3 is a sectional view on the line 3 3 of Fig. 1.

In the particular embodiment of my invention selected for illustration herein and shown
40 in the drawings a spherical whirl is indicated at A, the same being constructed from desired materials and in desired manner to enable a bicycle rider to perform within while at the
45 same time visible more or less distinctly from without.

Referring more particularly to the details of construction, I provide the top and bottom hub-castings *a* *a'*, adapted to receive and sup-

port the ends of the arc-shaped ribs *b*. As
50 herein shown, the bottom hub-casting *a'* is provided with a series of circularly-arranged eye-plates or perforations *a''*, with which may be engaged the hooks *b'* upon the lower ends
of the frames formed by the ribs *b*. These
55 frames so engaged or hooked at their lower ends have their upper also hooked ends *b''* brought together toward and at the top casting *a* and are there firmly secured in suitable
manner, as by passing a contractible band *b''*
60 around the same. This band may have a turn-buckle or other device by which it may be contracted, so as to bind together said upper ends
b'' firmly upon and in engagement with the said
upper casting *a*. The shuttle-like sections
65 between adjacent ribs *b* are covered or closed in suitable manner, as by ordinary woven-wire fabric, in which the wire may be either round in cross-section or in the form of flat
metal bands, secured at their ends to the
70 frames or ribs which make up the sections of the riding-surface or other foraminous material, but preferably of such material, in conjunction with some transparent covering or
filling therefor, such as glass, within which,
75 if desired, the foraminous material may be embedded, or the covering may consist of a transparent composition alone, such material being of a strength requisite to support the
rider between adjacent ribs. Preferably the
80 entire sphere will be divided into halves along its horizontal plane of greatest circumference, the ribs *b* being divided thereat and detachably connected in suitable manner, as by the
clamping devices *b'''*, adjacent ribs at the plane
85 of division being connected, respectively, by the cross-pieces *b'''*, which likewise may be secured one to another by clamping devices *b'''*.
By this construction the whirl as a whole may
be erected sectionally, and therefore more
90 conveniently, and, furthermore, it is made possible to build up the lower hemispherical portion of the whirl and use the same without the remaining top hemispherical portion thereof. One or more of the shuttle-shaped
95 sections or half-sections *c* may be temporarily omitted for the entrance or exit of the performer. However constructed and of what-

ever materials it is possible for the performer riding within the whirl in a circular path to mount gradually the inclined sides of the whirl until finally riding at least in the horizontal plane of the division-line at $b^3 b^4$. It is even possible that he might rise above the horizontal plane of greatest circumference of the whirl, especially if aided by suitable supports from within, which would be invisible from without.

Should occasion require, the whirl may be strengthened circumferentially by bands or hoops o encircling the same and resting in depressions o' provided therefor on the ribs, each hoop fitted with a turnbuckle or other means for contracting it, thereby to support the structure against bursting pressure from within.

This whirl may be either stationary or movable and may be mounted in any desired fashion. In the form herein shown, however, it is mounted in an upright position within a suitable frame comprising the base m , uprights m' , and top m^2 , the whirl being driven by a chain or belt m^3 from an operating device M , comprising the cranks m^4 and meshing gears m^5 , mounted on the driving-shaft m^6 . This operating device may be connected with the whirl by adjustable means, shown as the telescoping rods $m^7 m^8$, adjustably held at m^9 .

The various features of construction of the whirl and the manner of mounting the same, described and shown but not claimed in this application, form the subject-matter of my

copending application, Serial No. 187,910, filed January 6, 1904.

It is obvious that many changes may be made in the details and relative arrangement of parts of this invention without departing from the spirit and scope thereof.

I claim—

1. An amusement-whirl comprising a hemispherical riding-surface.

2. An amusement apparatus comprising a completely-inclosed whirl constructed to permit a performance within to be viewed from without.

3. An amusement apparatus comprising a spherical whirl having a foraminous wall.

4. An amusement apparatus comprising a spherical whirl having a wire-netting wall.

5. An amusement apparatus comprising a spherical whirl, the walls of which are constructed to permit a performance within the whirl to be viewed from without.

6. An amusement apparatus having a whirl presenting a spherical riding-surface constructed to permit a performance within the whirl to be viewed from without, said surface to this end comprising transparent material.

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

THOMAS W. ECK.

Witnesses:

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