

(No Model.)

2 Sheets—Sheet 1.

H. H. PATTEE.
AMUSEMENT WHEEL.

No. 583,121.

Patented May 25, 1897.

Fig. 1.

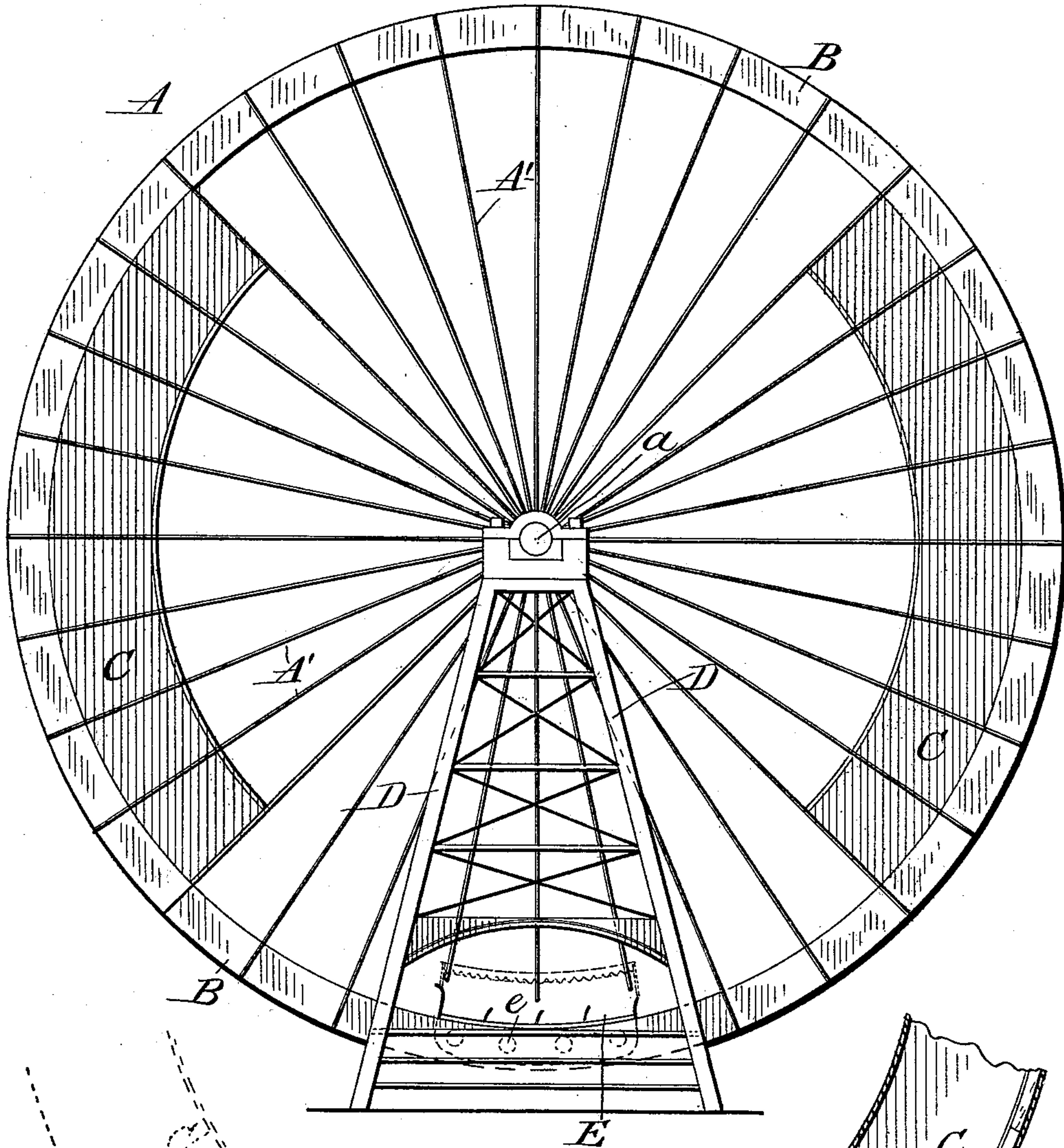
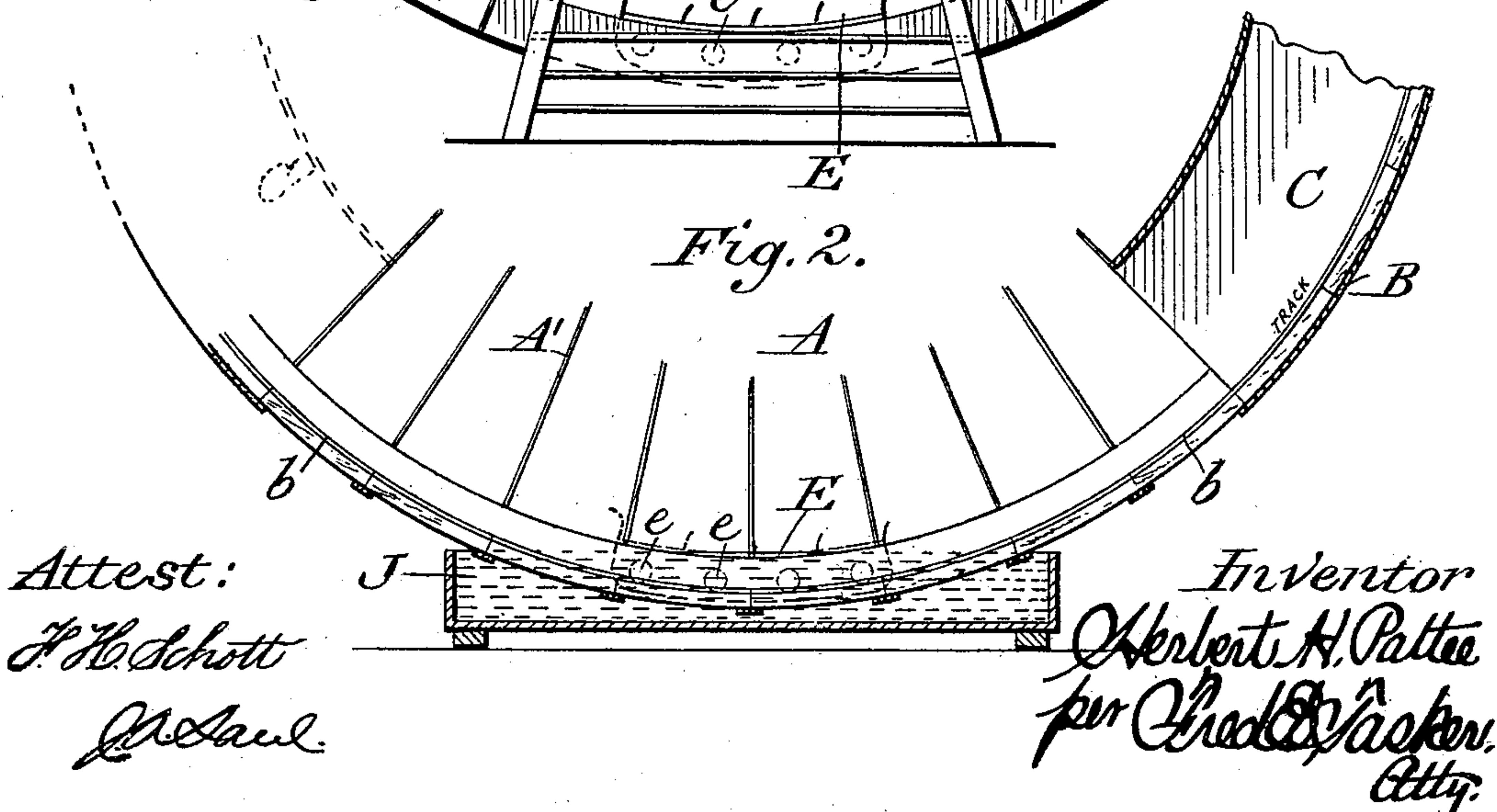


Fig. 2.



Attest:
J. H. Schott
McAul.

Inventor
Herbert H. Pattee
per Fred Wacker
Atty.

H. H. PATTEE.
AMUSEMENT WHEEL.

No. 583,121.

Patented May 25, 1897.

Fig. 3.

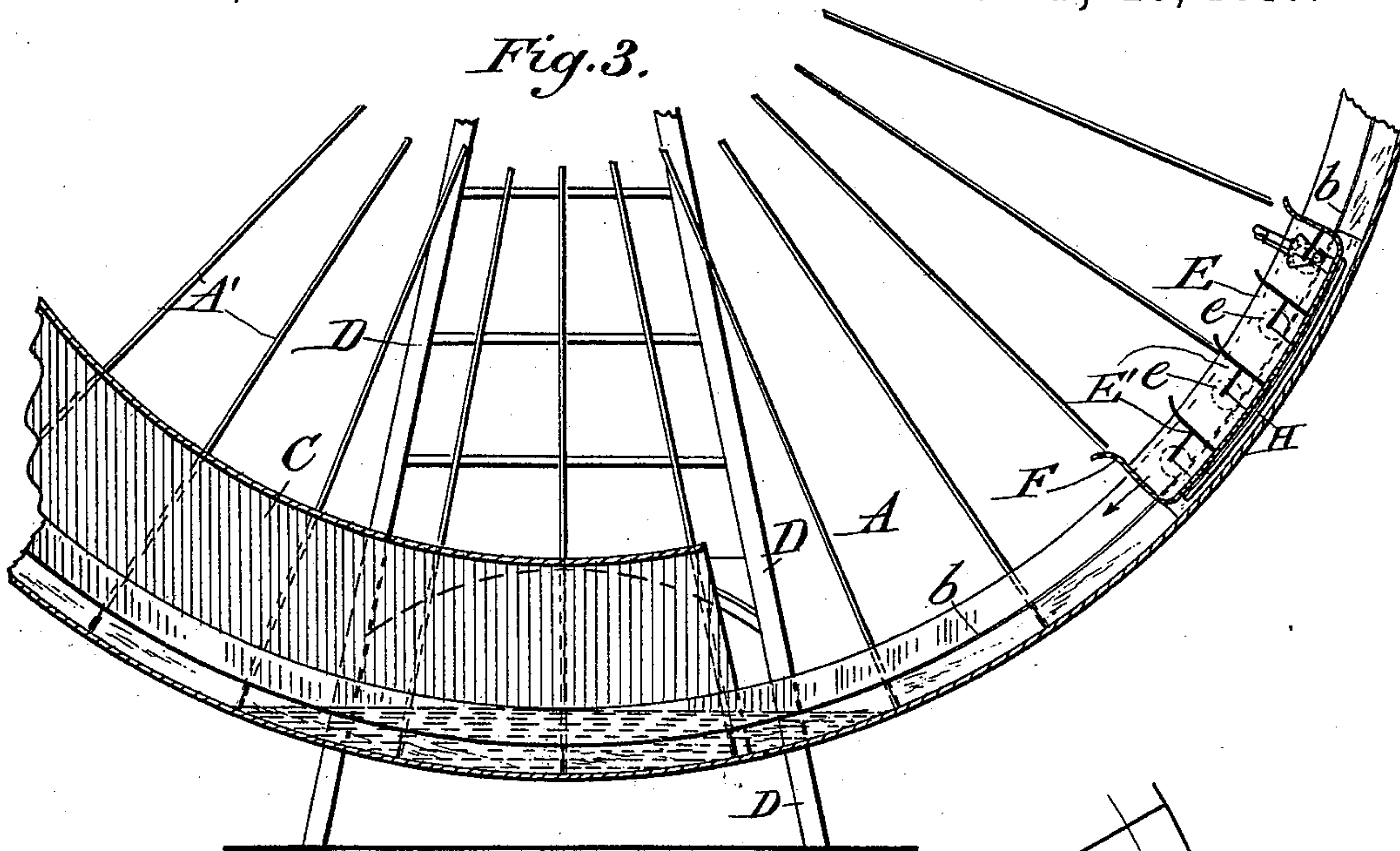


Fig. 4.

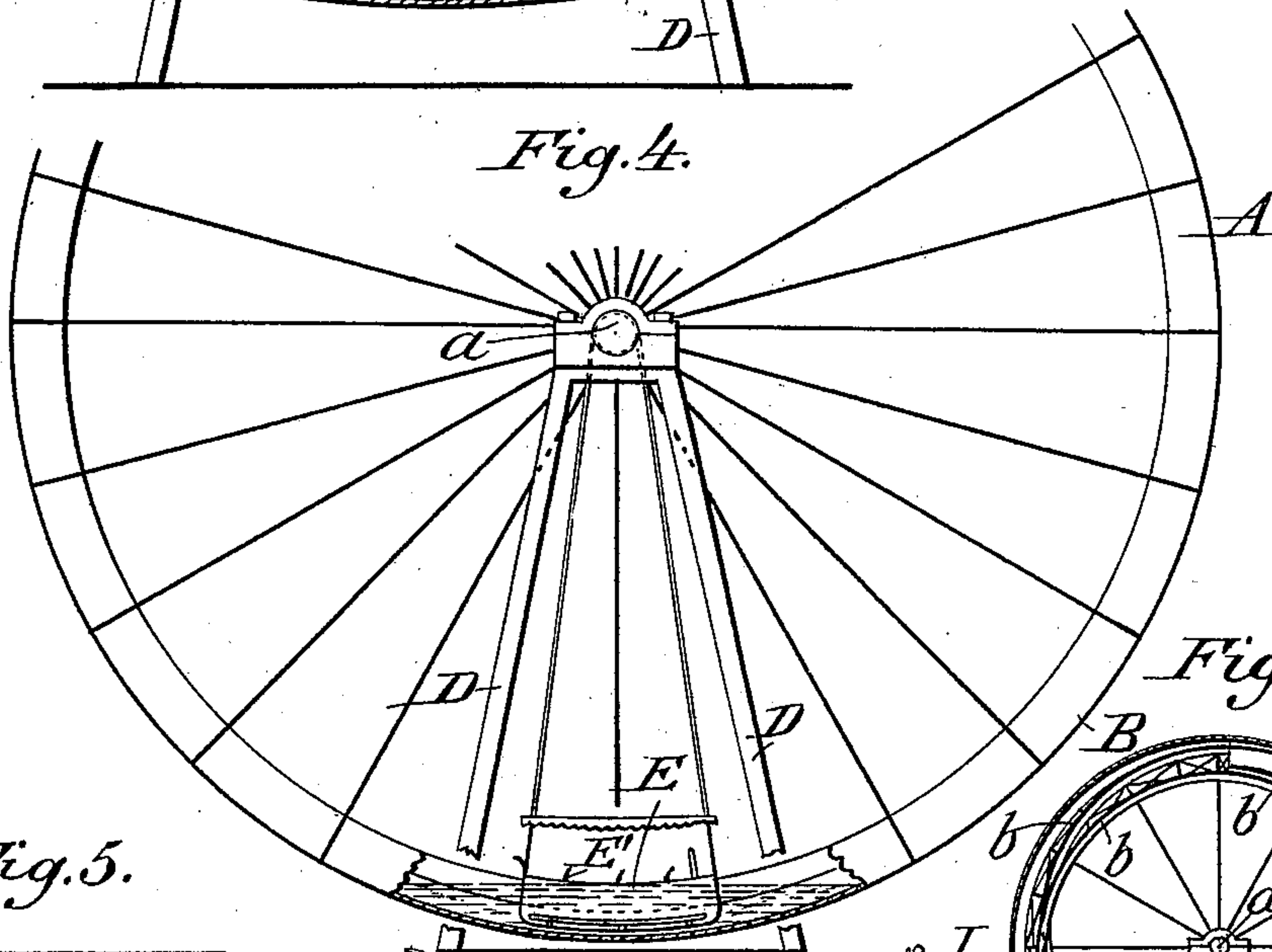
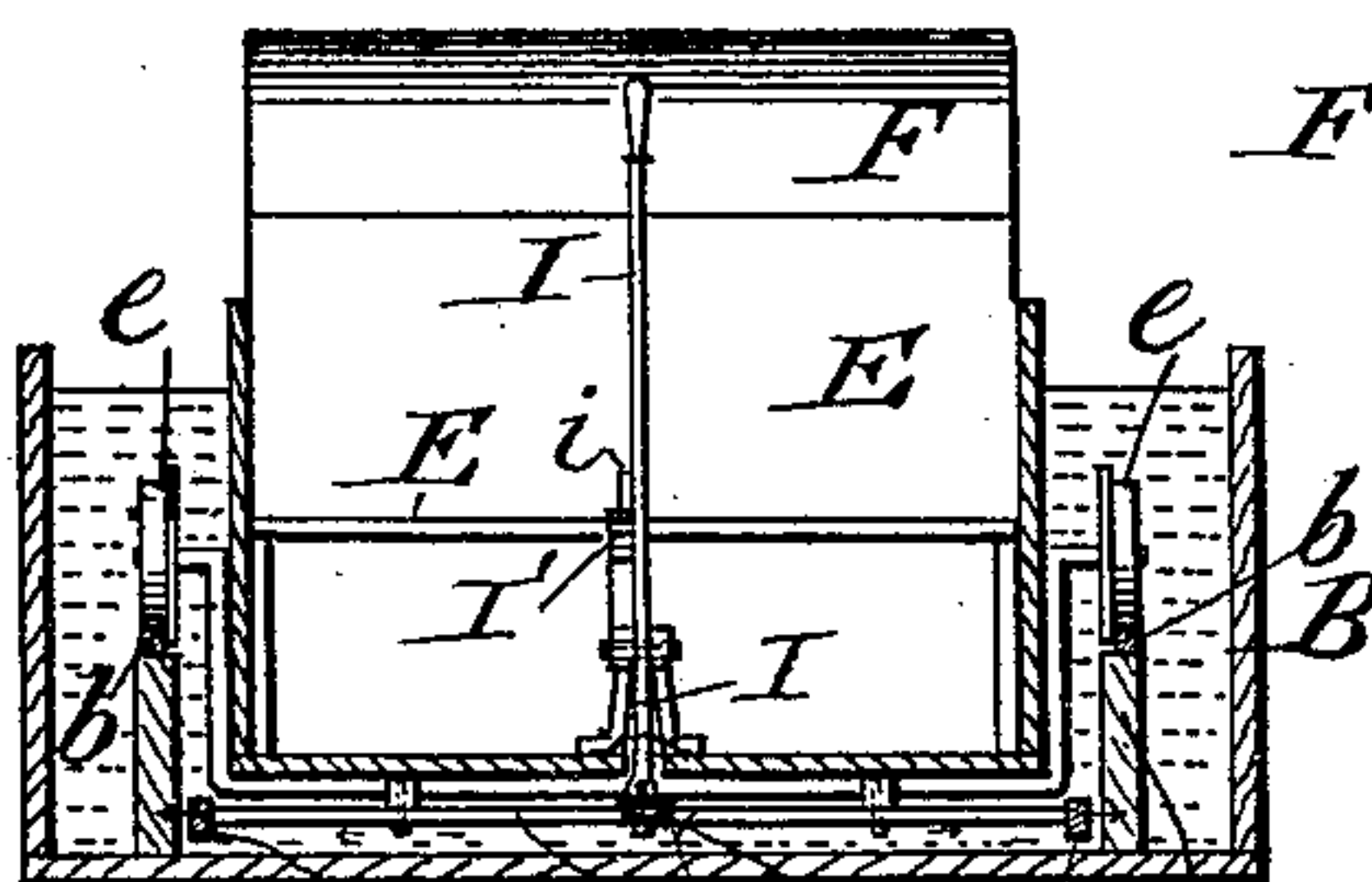


Fig. 5.



Attest: H. G. & H. b
H. B. Schott
McAul.

Fig. 6.

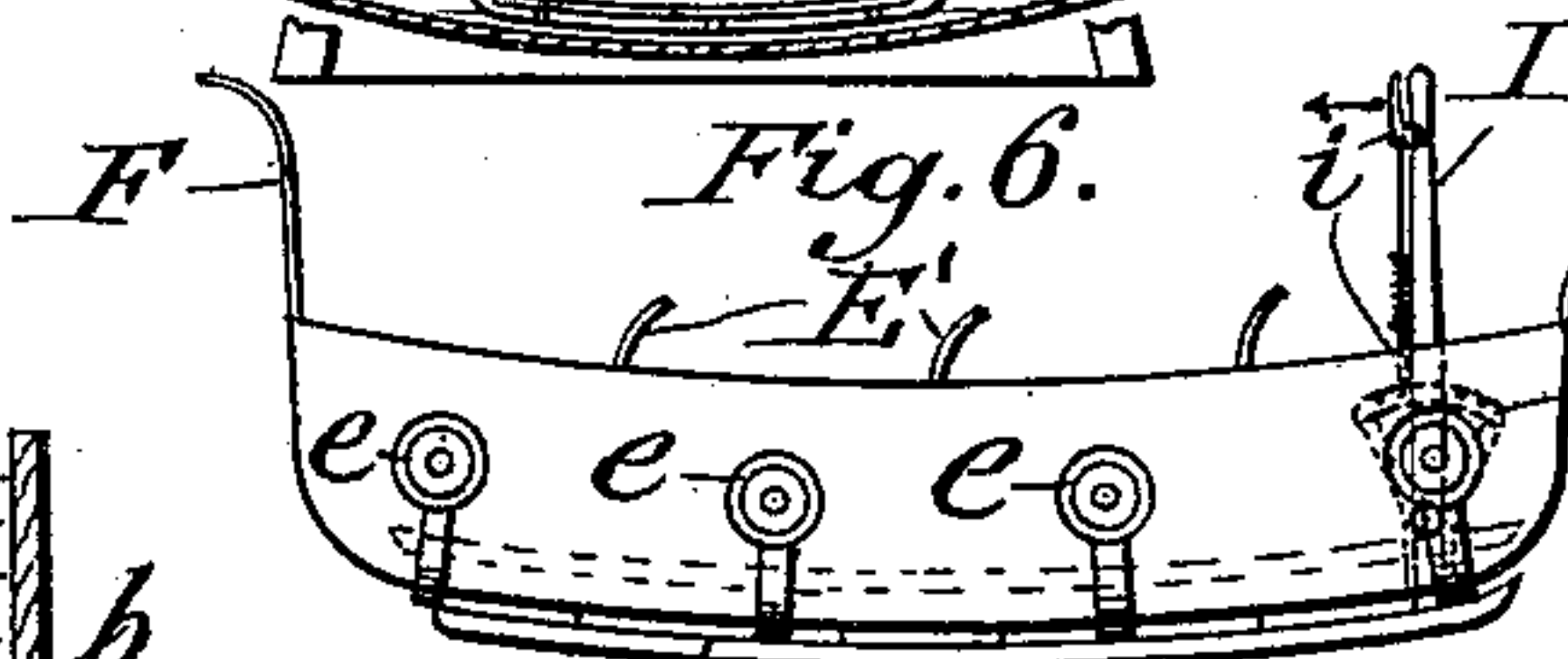


Fig. 7.

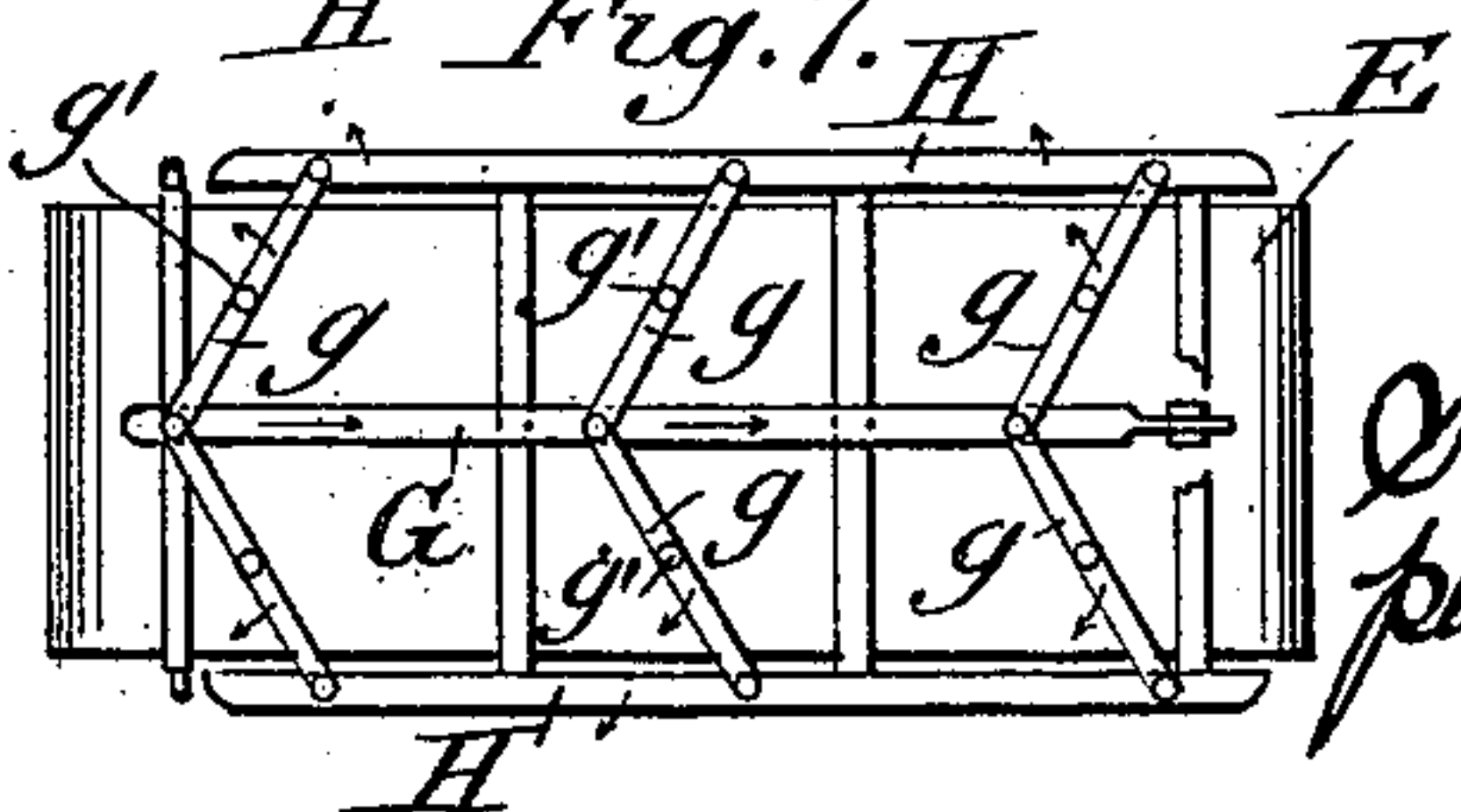
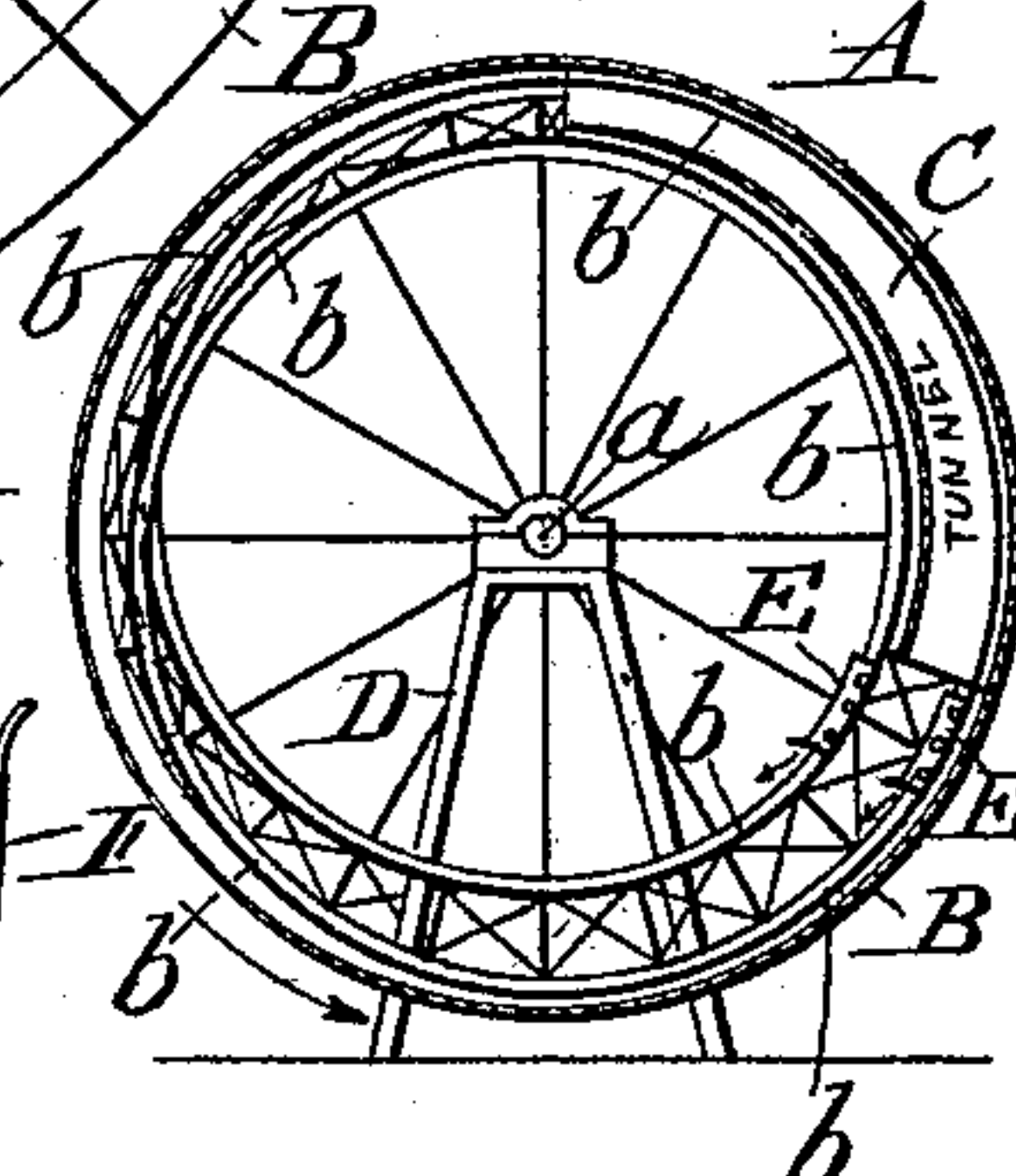


Fig. 8.



Inventor
Herbert H. Pattee
per Fred Wacker
Atty.

UNITED STATES PATENT OFFICE.

HERBERT H. PATTEE, OF WASHINGTON, DISTRICT OF COLUMBIA,
ASSIGNOR OF ONE-FOURTH TO CARL H. EAST, OF PHILADEL-
PHIA, PENNSYLVANIA.

AMUSEMENT-WHEEL.

SPECIFICATION forming part of Letters Patent No. 583,121, dated May 25, 1897.

Application filed May 7, 1896. Serial No. 590,601. (No model.)

To all whom it may concern:

Be it known that I, HERBERT H. PATTEE, a citizen of the United States, residing at Wash-
ington, in the District of Columbia, have in-
vented certain new and useful Improvements
in Amusement-Wheels; and I do hereby de-
clare the following to be a full, clear, and ex-
act description of the invention, such as will
enable others skilled in the art to which it ap-
pertains to make and use the same.

This invention relates to an improved
amusement-roundabout, comprising, essen-
tially, an upright or vertical wheel and in com-
bination therewith a chute-shooting arrange-
ment.

The object of the invention is to provide a
simple, novel, and effective combination of
mechanical parts which will permit a coast-
ing or shooting car to be suddenly precipi-
tated along the arc of the circumference of a
large rotary wheel in like manner as if it were
being thrust down a chute or inclined way.
The passengers upon an amusement-round-
about of this kind, which is propelled obvi-
ously with great celerity, will enjoy all the
exhilaration of motion incident to the rapid
shooting of a car down a chute, and combined
therewith many other novel and enjoyable
sensations incident to the peculiar movement
of the car upon the wheel's periphery, the ro-
tation of the wheel, the splashing of a water-
course arranged in conjunction with the wheel
and adapted to be struck by the moving car,
and other characteristics too numerous to
mention.

The invention therefore consists, essen-
tially, in the construction, arrangement, and
combination of parts, substantially as will be
hereinafter described and claimed.

In the accompanying drawings, illustrating
my invention, Figure 1 is a side elevation of
my improved observation-wheel and shooting
car. Fig. 2 is an enlarged detail sectional
view of a portion of the same, showing the
water-tank within which the lowest portion
of the wheel's periphery moves. Fig. 3 is like-
wise a partial sectional side elevation of the
wheel, showing a body of water carried by the
rim thereof and showing likewise a car which
is in position to slide down the incline of the

peripheral arc. Fig. 4 is a diagrammatic side
elevational view of my improved wheel, show-
ing the car at the lowest portion of the periph-
ery of the wheel at the point where it passes
through the water, which is arranged to be
carried within said periphery in like manner
as is suggested in Fig. 3. Fig. 5 is an enlarged
cross-sectional view of the wheel's periphery,
showing the car in partial end elevation. Fig.
6 is a side elevational view of the car or boat.
Fig. 7 is a bottom plan view of the same. Fig.
8 is a sectional elevational view of a modified
form of my improved combined wheel and
shooting boat.

Similar letters of reference designate corre-
sponding parts throughout the different fig-
ures of the drawings.

In carrying my invention into practical ef-
fect I provide a large rotary wheel. It is only
necessary that the wheel should be stoutly
braced and constructed on correct principles
in order that it may have sufficient strength
for the purpose for which it is intended.

A designates the wheel. In the example
shown in the drawings this wheel has the shaft
 α , which is journaled in bearings in the side
frames D D. Wheel A has the rim B and
the spokes A' A'. It must be clearly under-
stood, however, that the wheel illustrated is
simply presented by way of example, and that
in actual practice I reserve the liberty of
building it in any way that will afford a ro-
tary structure of the necessary strength, the
spokes, cross-beams, the rim, the shafting,
and the side supporting-frames, together
with the other necessary mechanical parts,
being all related and arranged in such a way
as to combine cheapness, strength, and effi-
ciency, and make the wheel what is needed
for the purpose specified.

The rim B is trough-shaped, as shown in
Fig. 5, the trough being of any suitable form
or curvature and of any desired size. In the
form of wheel shown in Figs. 3, 4, and 5 the
lowermost portion of the trough-shaped rim
contains a quantity of water. As the wheel
rotates it is obvious that this water will re-
main in the same position relatively to the
wheel, occupying at all times its lowest level,
and that different portions of the rim will

therefore successively contain the body of water referred to. In the form of the invention shown in Fig. 2 the receptacle J, stationary and independent of the wheel A, is provided for containing a body of water, and through this receptacle rotates the rim of the wheel, so that the same result is attained as in Figs. 3, 4, and 5—namely, that of providing one portion of the wheel's periphery with a comparatively stationary body of fluid or liquid. Furthermore, it is to be particularly observed that the periphery of the wheel is provided at certain points with tunnels C C, which tunnels permit the passage through them of a body moving along the trough-shaped rim of the wheel. The tunnels are simply elongated and closed compartments on the inner face of the rim B of the wheel, and they may obviously be of greater or less length. The greater the length the darker will be the interior of said tunnels. I find it convenient to place at least two of these tunnels upon the periphery of the wheel, and three or four or even more may be employed to advantage. When the wheel in its rotation brings a tunnel to the lowermost position, it is manifest that the water will enter and pass through the said tunnel.

E designates a boat, car, or other suitable vehicle which is adapted to move by gravity within the trough-shaped rim. One way of permitting and encouraging such movement is to provide tracks, as *b b*, within said rim which are engaged by lateral wheels or rollers *e e*, arranged on the side of the boat or car. I do not, however, wish to be restricted to this particular means of permitting and guiding the movement of the car or boat within the rim, but reserve the liberty of modifying such means and providing others, if desired, to accomplish the same result. The car E is equipped with a front dasher F and with a series of seats *E' E' E'*, the seats being arranged therein in any suitable manner; also, the car is provided with means for locking it to any point on the wheel's rim B. One example of such locking means is illustrated in Figs. 5 and 7, where it is shown as consisting of devices arranged on the under side of the car, comprising the central medial rod G, to which are pivoted the levers *g g g*, which are fulcrumed on the under side of the car by means of pivot-pins *g' g'*. The outer ends of these levers *g* on either side of the car are connected by the side rails H H. In the car E is a lever I, having the catch *i*, that engages a notched segment I', said lever I engaging at its lower end one end of the medial rod G, so that the conductor of the car may by a proper manipulation of the lever I actuate the leverage just described and thereby thrust the lateral rails H H outward from the car into contact with the tracks *b b*, as shown in Fig. 5, or into contact with the sides of the trough or some other part of the rim B in such a manner as to securely and effectually lock the car E at any desired point and hold

the same in this locked position as long as may be desired. Of course it is to be distinctly understood that I am not restricted to any specific form of locking mechanism, but may provide any locking, clamping, or securing devices which will achieve the object in view—to wit, that of temporarily connecting the car to a point on the wheel's rim, where it may be held until the time arrives to release it.

The wheel A is designed to be rotated by means of some suitable engine or power mechanism which will apply its power either to the shaft *a* or to the rim B or to some other part of the wheel for the purpose of rotating it slowly or fast, as may be desired. In the practical carrying out of my invention I purpose to provide a motor for the wheel which can be readily controlled by the conductor in such a way that the wheel will be given intermittent partial rotations, said partial rotations being of the length sufficient to lift the car E from the position shown in Fig. 4 to the position shown in Fig. 3, or perhaps higher. Suppose, for instance, that the wheel has been partially rotated, as just described, and the car E lifted to the position shown in Fig. 3, it being clamped to the rim of the wheel during this partial rotation. If now the wheel is stopped with the car E in the position of Fig. 3 and the conductor releases the clamping device, the car E will be caused to shoot by gravity down the rim of the wheel in the direction shown by the arrow until it strikes the water with great force and with a terrific splashing, thereby causing much excitement and consternation among the occupants of the car, as well as amusement to them and to the onlookers when it is understood and perceived that such apparent violence of movement and splashing about of the water is attended with absolutely no danger. In this movement the car E will pass through the water and its momentum will be sufficient to carry it a short distance up the opposite incline of the wheel-rim, and when it reaches the limit of its movement the conductor will cause the clamping device to operate to hold the car fast to the rim at this extreme point. The conductor can then signal to the engineer and cause the wheel to be given another partial rotation, which will carry the car again to the high point where it is indicated in Fig. 3, and by a second release of the clamping device the car may be shot downward a second time under the action of gravity. Thus by successive partial rotations of the wheel the car may be allowed to shoot several successive times down the incline of the wheel-rim. At certain of such times the car will shoot through one or the other of the tunnels C, thus adding to the excitement and amusement of the operation of the mechanism.

Thus far I have described the wheel as having but one trough or track in the rim. It must be understood, however, that, if desired,

said rim may have duplicate or triplicate troughs, or there may be any other number arranged parallel to each other or otherwise, if desired. Furthermore, I can, if desired, have more than one rim or have a continuous rim, a portion of which is eccentric to the axis of the wheel. In Fig. 8 I have shown one modification of my invention, consisting of a continuous track passing two or three times around the axis of the wheel and being eccentric to said axis for a certain distance. The operation of this form of the invention is substantially the same as that of the other form, excepting that the car may travel over a longer distance, and several cars may be used, if desired.

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

1. An amusement-wheel, consisting of a tunnel-provided track-shaped rim, a gravity shooting car therein, and a clamping device for locking the car to the rim.

2. An amusement-wheel, consisting of a track-shaped rim, in combination with a gravity-movable car or boat in said rim, and an artificial pond or lake submerging the lowest part of the rim.

3. An amusement-wheel, consisting of a

combined concentric and eccentric rim, which provides a continuous track passing two or more times around the axis of the wheel, in combination with a gravity shooting car movable on said track.

4. The combination of a rotary wheel having its rim provided with a track or way, a shooting car on said rim, locking means for securing the car to the rim, and an artificial body of water submerging the lowest part of the rim.

5. The combination of a rotary wheel having its rim provided with a tunnel and adapted to provide a track, a gravity shooting car on said track, and means for temporarily securing the car to any desired point of the rim.

6. The combination of a rotary wheel having a track-shaped rim provided with one or more tunnels, a gravity shooting car in said rim, means for clamping the car to the rim at any desired point, and a body of water which submerges the lowest part of the track and through which the car splashes when it shoots.

In testimony whereof I affix my signature in presence of two witnesses.

HERBERT H. PATTEE.

Witnesses:

SAMUEL L. TAYLOR,
CARL H. FAST.