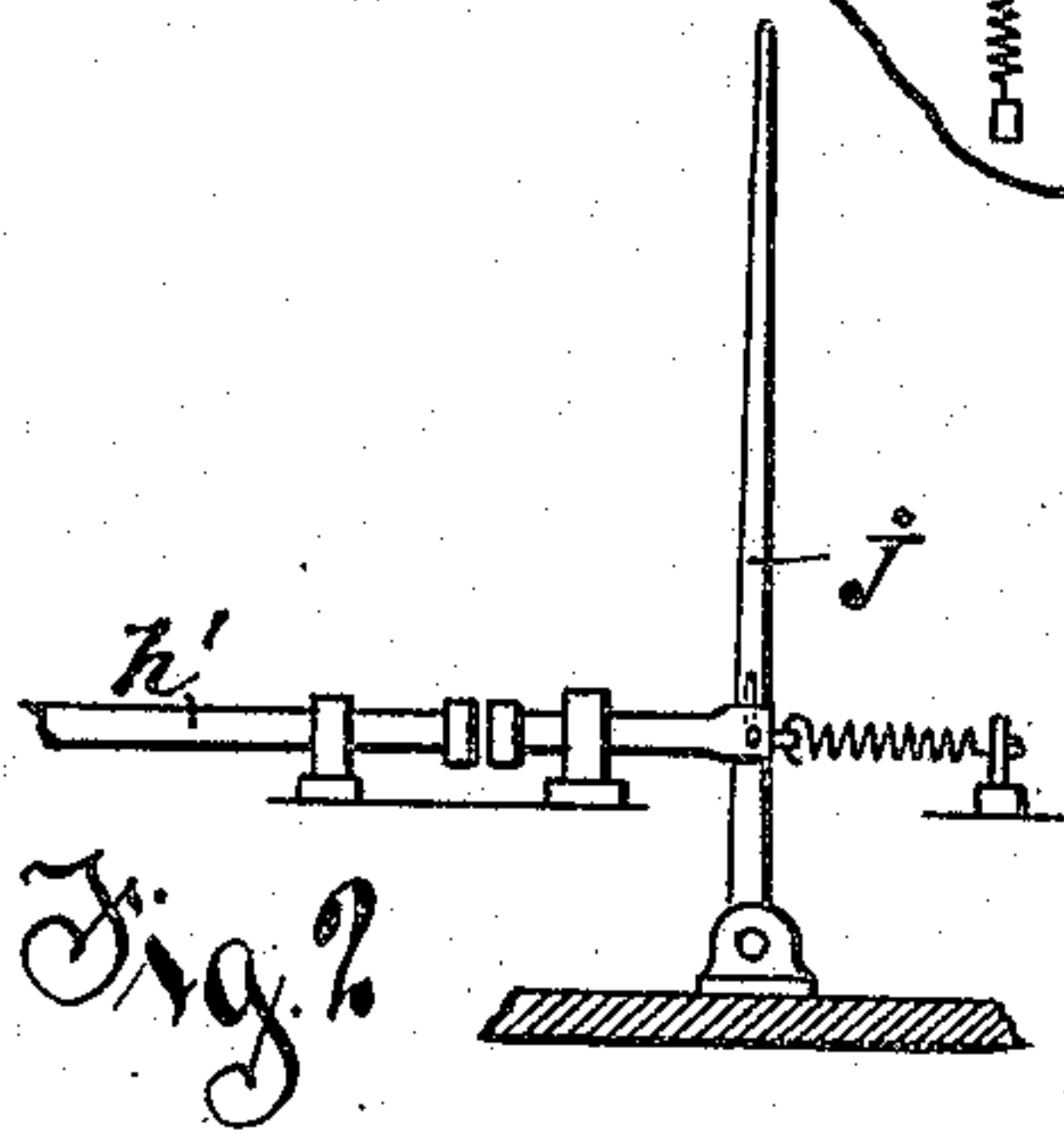


TURN TABLE.

930,629.

2 SHEETS—SHEET 1.



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TURN TABLE.

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930,629.

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2 SHEETS—SHEET 2.

Fig. 3

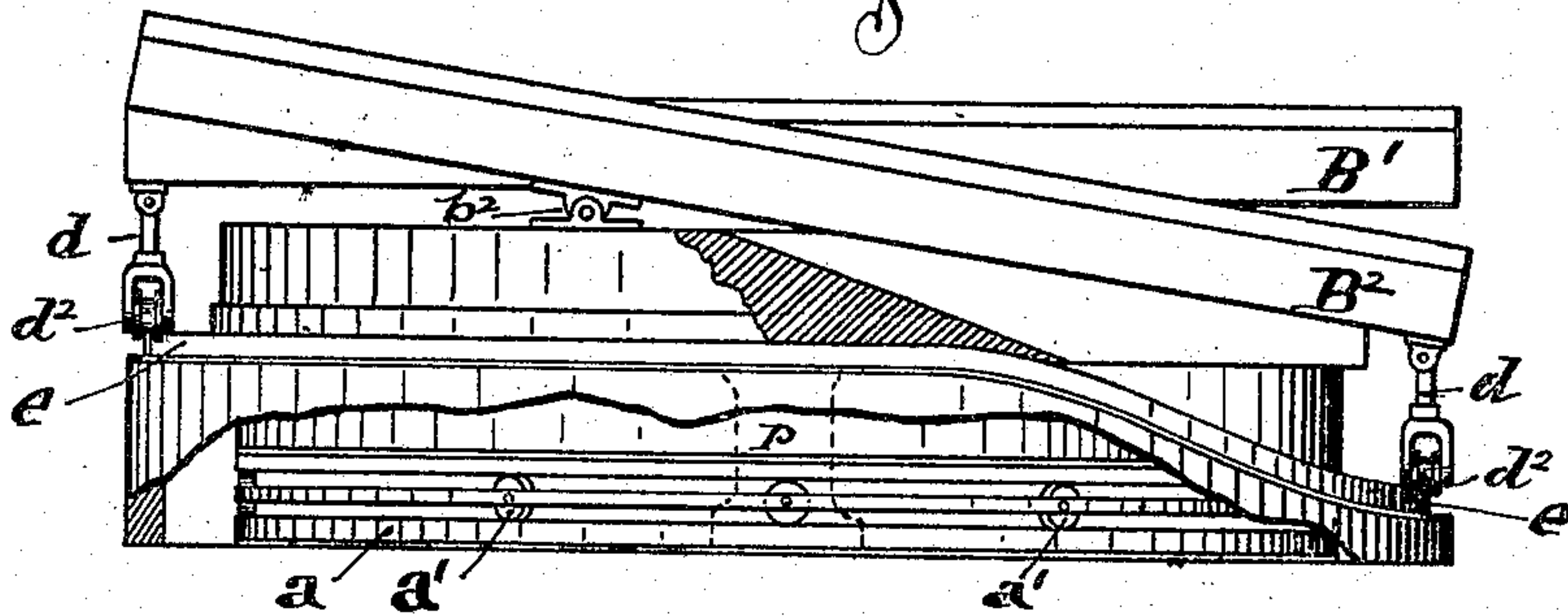
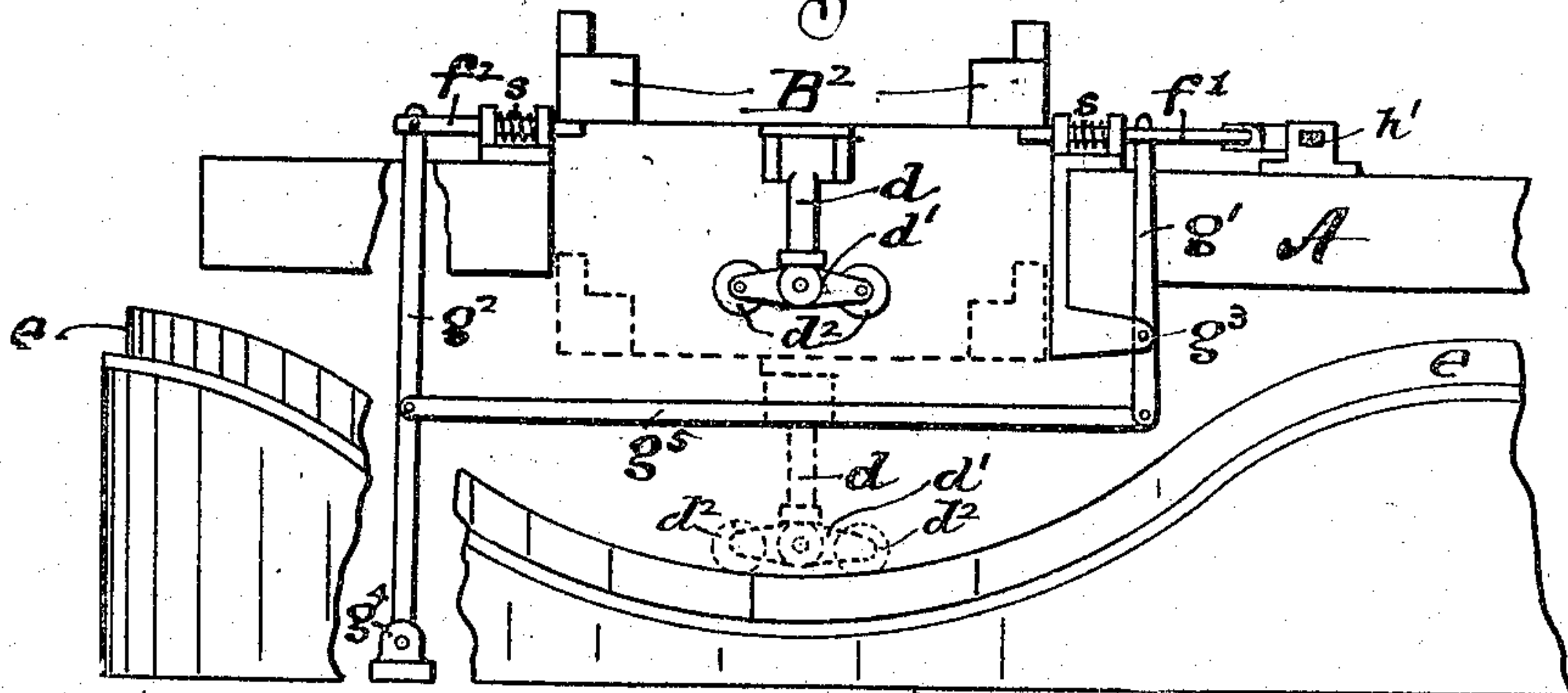


Fig. 4



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UNITED STATES PATENT OFFICE.

CHARLES M. STANLEY, OF HAMILTON, OHIO, ASSIGNOR TO JEROME J. WEAVER, OF LUDLOW, KENTUCKY.

TURN-TABLE.

No. 930,629.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, CHARLES M. STANLEY, a citizen of the United States, residing at Hamilton, in the county of Butler and State of Ohio, have invented new and useful Improvements in Turn-Tables, of which the following is a specification.

My improvements relate to turntables used in connection with water-chutes, and having tilting "cradles" on which boats are alternately received and discharged. In these constructions heretofore the tilting of the cradles has been accomplished by mechanism, usually operated by hand, independently of the mechanism and driving power employed to turn the table itself; which not only entails additional mechanism, but considerable manual labor on the part of attendants in the performance of the necessary operations.

It is the object of my invention to avoid this additional expense of construction and labor of maintenance; besides attaining, incidentally, advantages in simplicity and compactness of structure tending to minimize the liability of accident and conducting to certainty and positiveness of operation.

To these ends my invention consists, primarily, in a turntable provided with suitable means for its rotation and with pivoted cradles for the boats, combined with an independent circular inclined track-way by and upon which the cradles are upheld or depressed according to their radial position in relation thereto, by means of supporting wheels or rollers attached to the cradles and running upon said track-way,—the oscillating movements of the cradles, due to gravity, being incidental to the general rotative movement of the turn-table.

In connection with the main improvements indicated,—but not a necessary feature in all cases,—I may also employ a system of catches by which the cradle carrying the outgoing boat is temporarily upheld, independently of its relation to the supporting track-way, until it reaches the radial position of discharge upon the down-chute; whereupon, by the withdrawal of said catches, the cradle is allowed to drop by gravity to its supporting track and into connection with the down-chute, thereby giving an added impetus to the boat discharged from said cradle.

My invention is illustrated in the accompanying drawings, in which—

Figure 1— is the general plan view of a turntable showing the relative position of the cradles in relation to the receiving and discharge trackways. Fig. 2— is a detail elevation of the lever connections employed for releasing the catches to drop the cradles and discharge a boat upon the down-chute. Fig. 3— is a side elevation of the turn-table, showing the relation of the cradles to the supporting trackway; and Fig. 4— is a front elevation of the turntable showing the relation of the discharging cradle in full lines when upheld by the catches; and in dotted lines when released from the catches.

Referring now to the drawings, in which only such parts are shown as are necessary to illustrate my invention, A designates a turntable of ordinary construction which revolves about a central pivot p , upon a circular trackway, a , through the medium of a concentric system of rollers a^1 running thereon, and upon which the turn-table immediately rests. Suitable mechanism is provided for the rotation of the turn-table as required, and catches for stopping it at proper points;—all of which being common in this class of devices is not here shown.

Upon the top surface of the turn-table frame are carried two cradles B^1 B^2 , or track-sections, for the accommodation of boats drawn up one chute or trackway C^1 and discharged upon another C^2 usually parallel thereto. These cradles are duplicates of each other, arranged parallel and equidistant from the center of the turn table, each one being pivotally secured to the turn-table, as at b^1 , b^2 , near the receiving end of the cradle, and the framing of the turn table being arranged to allow the forward or discharging end of the cradle to drop to the depressed position indicated in Fig. 3, when discharging its boat. Each cradle is provided at its discharging end (the end most remote from its pivotal connection with the turn table) with a bracket or strut d pivoted to have sufficient play to hang always vertical in any angular position of the cradle. The bracket carries pivoted at its lower extremity a cross bar d^1 at the extremities of which are journaled double flanged rollers d^2 d^2 .

Substantially concentric with the trackway a , and in line beneath the struts d , at

the outer ends of the cradles, is a similar trackway e , upon which the wheels d^2 travel. This trackway e is arranged at such a height as to maintain the cradles in a normally horizontal position, excepting that when, in the rotation of the turn table, the discharge end of the cradle is approaching its point of registry with the down-track of the main chute, the trackway e is depressed, with gradually curving inclines connecting at each side with the normally level portion; so that, as the rotation of the turn-table is continued, the cradle containing the outgoing boat is depressed by gravity as it approaches the point of registry with the down chute, because its supporting wheels carried upon its supporting strut or bracket, ride down the incline of the curved trackway to the point of extreme depression in registry with said down chute. This movement of the cradle, it will be observed, is effected solely by gravity in the general rotation of the turn-table, as an incident thereof. In like manner, when the boat is discharged from the cradle to the down-chute, and the turntable is further rotated in continuation of its former movement, the wheels supporting the depressed end of the cradle ascend the opposite incline of the supporting trackway and the cradle is returned to and thence continued in its normally horizontal position as part of the turn-table. As thus constructed and used, the boat on coming from the up-track c^1 upon the appropriate cradle, to its limit of movement, is made fast upon the cradle by any suitable catch or fastening (not shown) and released when the turn table has rotated 180 degrees, and the said cradle has become depressed in the manner described, and registers with the down chute. The fastening being released, the boat is allowed to descend the chute c^2 by gravity. I may, however, employ a device for the purpose of holding the cradle temporarily in its normally horizontal position against gravity, notwithstanding the depression in its supporting trackway at the point of registry with the down-chute. This consists of two bolts $f^1 f^2$ arranged to slide in suitable sockets on the framing of the turn table at opposite sides of the cradle and so connected as to be simultaneously moved inward beneath and become temporary supports for the cradle, or withdrawn outward so as to allow the cradle to drop by gravity to its inclined position, when in registry with the down-chute. Mechanism for this purpose is illustrated in Figs. 1, 2 and 4. Bolts $f^1 f^2$ are passed through correspondingly formed sockets in the framing at the sides of and beneath the cradle as supports at each side,

as indicated in Fig. 4. The outer ends of the bolts are perforated for connection with levers $g^1 g^2$, of the first and second class respectively, which are suitably fulcrumed at $g^3 g^4$, and connected by an operating rod g^5 . The bolt f^1 at one side is pivotally connected to one arm of bell crank lever h (see Fig. 1) whose other arm is connected to a push rod h^1 extending outward to the outer side of the turn table, as shown, where it may be actuated by a hand-lever j adjacent to the turn table, when the latter is in proper position for discharging the outgoing boat. The bolts f^1 and f^2 are provided with springs s , whereby they are held normally inward to uphold the cradle against gravity and only withdrawn temporarily by the action of the hand lever j . When the cradle drops to its lowest position, the bolts f^1 and f^2 rest against the sides of the cradle and are thus held apart until the cradle is restored to its normally horizontal position, when they automatically return to position.

Arranged as hereinbefore indicated, the locking action of the catches is entirely automatic, and, like the oscillation of the cradles, is incidental to the rotation of the turn-table.

I claim as my invention, and desire to secure by Letters Patent of the United States:

1. A turntable provided with pivoted "cradles", registering with chutes connecting with the turn table at different elevations, and means for elevating and depressing the cradles, actuated by rotation of the table.

2. The combination of a turn-table; trackways, or chutes, connecting therewith at different elevations; an independent circular trackway surrounding the base of said turn-table; and cradles pivoted to and adapted to oscillate upon the turn-table structure, provided with wheeled supports resting on said independent circular trackway, and by rolling contact upon suitably disposed inclines of said trackway, registering the cradles with the connecting tracks or chutes at their several elevations.

3. In a turn-table provided with pivoted cradles and an inclined supporting trackway, a system of catches for maintaining the cradles in horizontal position against the force of gravity, with means for releasing the same at will.

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

CHARLES M. STANLEY.

Witnesses:

WALTER A. KNIGHT,
A. L. TILDESLEY.