No. 664,179.

Patented Dec. 18, 1900.

G. W. SCHOFIELD.

PLEASURE CANAL.

(Application filed Aug. 13, 1900.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

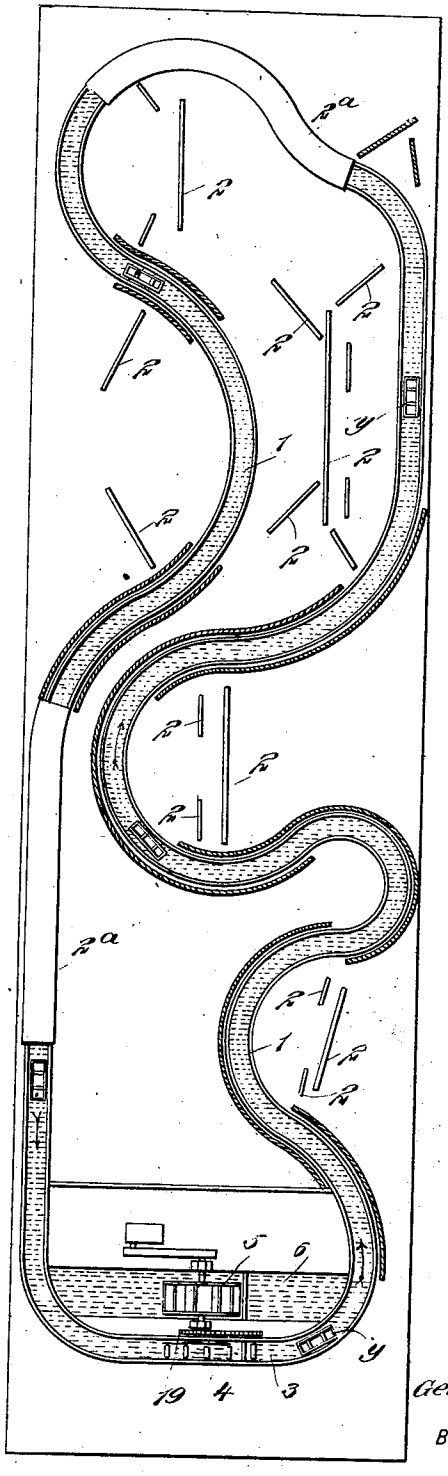

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Fig. 2.

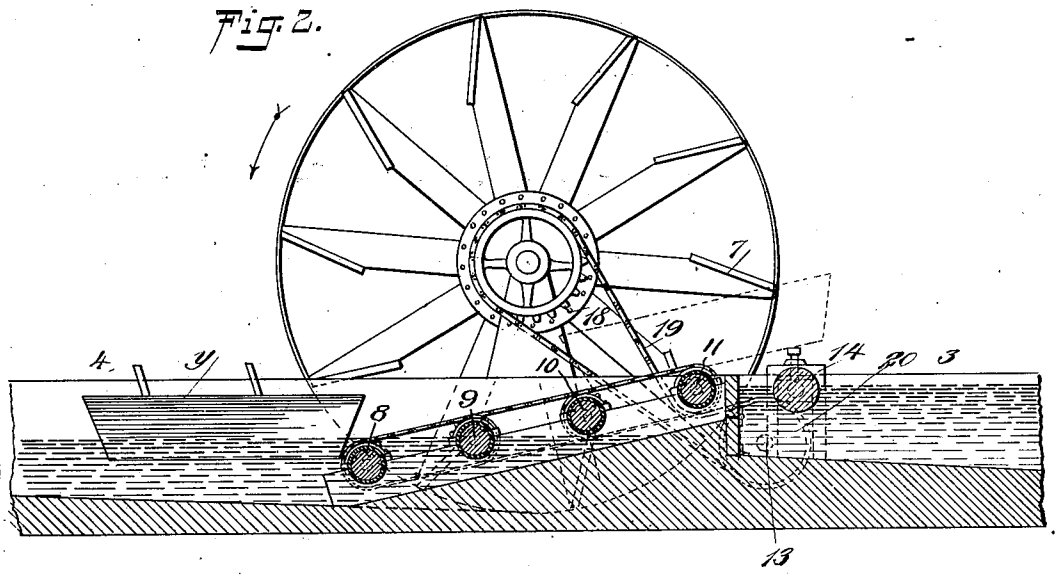


Fig. 3.

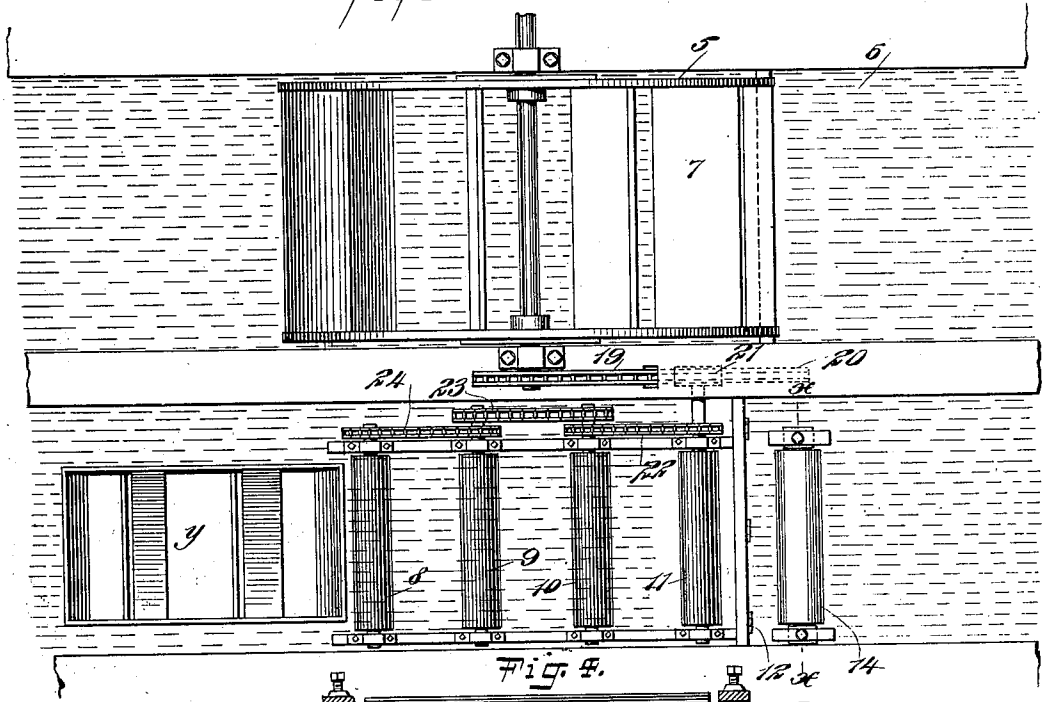
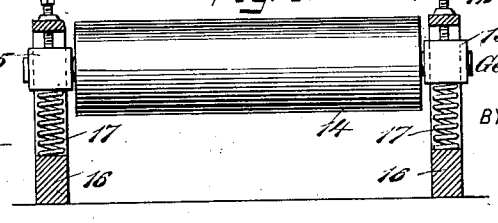


Fig. 4.



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UNITED STATES PATENT OFFICE.

GEORGE W. SCHOFIELD, OF NEW YORK, N. Y.

PLEASURE-CANAL.

SPECIFICATION forming part of Letters Patent No. 664,179, dated December 18, 1900.

Application filed August 13, 1900. Serial No. 26,715. (No model.)

To all whom it may concern:

Be it known that I, GEORGE W. SCHOFIELD, a citizen of the United States, residing in the city of New York, (Coney Island,) borough of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Pleasure-Canal, of which the following is a full, clear, and exact description.

This invention relates to improvements in pleasure canals or waterways; and the object of the invention is to provide a pleasure device of this character having a long waterway in a comparatively small space, the banks of the waterway being provided with varying scenery designed for amusement and instruction, and, further, to provide a novel means for shifting the boats from the lower level or terminal of the canal to the higher level or starting-point.

I will now describe a pleasure-canal embodying my invention and will then point out the novel features in the appended claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a plan view of a pleasure-canal embodying my invention. Fig. 2 is a sectional elevation of the same, showing the starting-point and the terminal of the canal and the current-wheel in elevation. Fig. 3 is a plan view thereof, and Fig. 4 is a section through the line $x\ x$ of Fig. 3.

Referring to the drawings, 1 designates the canal, which is preferably made sinuous, as shown, so as to provide a considerable length in a comparatively small space. The banks of the canal are provided with varying scenery 2, and at desired intervals tunnels 2^a are placed. From the starting-point 3 of the canal to its terminal 4 there is a gradual descent, and the said starting-point and terminal are contiguous.

A current is maintained, so as to float the boats therein, by means of a water-wheel 5, placed in a reservoir 6, which at one end communicates with the terminal end of the canal through suitable openings and at the other end communicates with the starting-point of the canal.

The water-wheel is driven by any suitable motor and is designed not only to maintain a current in the canal, as before mentioned, but also for lifting the water from the lower level or terminal to the higher level or starting-point. To reduce the power required to operate the wheel to lift the water, the blades on the lifting side are arranged at a tangent to the axis of the wheel, as indicated at 7.

At the terminal of the canal is a transferring or lifting device for carrying the boats from the terminal end to the starting-point. This lifting device consists of a series of rollers 8, 9, 10, and 11. These rollers are arranged on an incline, the higher roller of course being nearest to the starting-point of the canal, and at this point I have provided a dam, consisting of two sections 12 and 13, hinged together, and the lower section 13 is hinged to the bed of the canal. Forward of this dam and arranged transversely in the starting portion of the canal is a receiving-roller 14, upon which the boats will strike when discharged from the carrier. This receiving-roller 14 has a spring-yielding motion vertically; thus forming a cushion for the boat to strike upon. I have here shown the shaft of the roller as having bearings in boxes 15, movable in risers 16, and arranged below the boxes are springs 17. While I have shown helical springs, it is to be understood that other forms may be employed without departing from the spirit of my invention.

From a sprocket-wheel 18, mounted on the shaft of the water-wheel, a sprocket-chain 19 extends around an idler sprocket-wheel 20, and the upper stretch of the chain 19 passes underneath a sprocket-pinion 21, attached to the extended shaft of the upper roller 11. The roller 11 has sprocket-chain connection 22 with the roller 10, and the said roller 10 has a sprocket-chain connection 23 with the roller 9, and from this roller 9 the roller 8 is driven by means of a sprocket-chain 24. By this arrangement of sprockets and sprocket-chains it is evident that the several rollers 8, 9, 10, and 11 are all rotated in one direction—that is, in such direction as to carry a boat upward and force it over the dam.

In operation a boat carrying passengers is started at the starting-point of the canal and will be carried along by the current created

by the action of the water-wheel. When the boat reaches the terminal and after discharging the passengers, the boat is drawn upon the lower carrier-roller 8, and then the rotary motion of the carrier-rollers will move the boat upward, as before mentioned.

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

1. A pleasure-canal having its starting-point and terminal contiguous, the bed of said canal having a gradual incline from one end to the other, a water-wheel for causing a current of water in the canal, said wheel also serving to pass the water from the terminal to the starting-point of the canal, and means operated by the water-wheel to transfer a boat from the terminal to the starting-point, substantially as specified.

2. A pleasure-canal having its starting-point and terminal contiguous, the bed of said canal having a gradual incline from one end to the other, the banks of the canal having their upper surfaces approximately on a horizontal plane, a water-wheel for causing a current of water in the canal, said wheel also serving to pass the water from the terminal to the starting-point of the canal, and mechanical means operated to transfer a boat from the terminal to the starting-point, substantially as specified.

3. A pleasure-canal having its starting-point and terminal in a line with each other, a reservoir at one side of said starting-point and terminal and communicating therewith, a water-wheel operating in said reservoir, and an inclined carrier for transferring boats from the terminal to the starting-point, the said carrier being operated from the water-wheel, substantially as specified.

4. A pleasure-canal having its starting-point and terminal one in line with the other, a series of rollers arranged on an incline at the terminal of the canal, a dam between said terminal and the starting-point, and a spring-yielding receiving-roller arranged in the starting-point, substantially as specified.

5. In a pleasure-canal having its starting-point and terminal contiguous, the bed of said canal being inclined gradually downward from the starting-point to the terminal, a series of rollers arranged on an incline at said terminal driving connections between the rollers, a water-wheel for causing a current through the canal and for lifting the water from the lower to the higher level, a driving connection between said water-wheel and one of the said rollers, and a spring-yielding receiving-roller arranged within the starting portion of the canal, substantially as specified.

6. In a pleasure-canal having its bed inclined downward from its starting-point to its terminal, a water-wheel arranged at one side of the said starting-point and terminal and having its blades arranged at a tangent to its axis, and means operated by said water-wheel for transferring boats from the terminal to the starting-point, substantially as specified.

7. A pleasure-canal containing a body of water and having a series of different scenes arranged along its sides, the ends of the said canal being contiguous, an inclined bottom in said canal, the banks of the canal having their upper surfaces approximately on a horizontal plane, means for conveying water from the lower level to the higher level of the canal and causing a continuous circulation of water through the canal, a boat to be supported and moved by the body of water, and a carrier for transferring the boat from the lower to the higher level of the canal, substantially as specified.

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

GEORGE W. SCHOFIELD.

Witnesses:

JNO. M. RITTER,

C. R. FERGUSON.