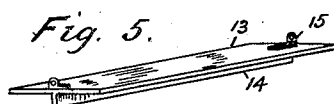
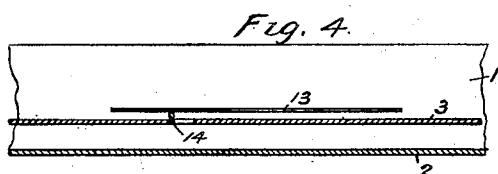
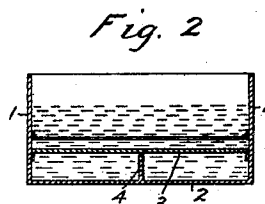
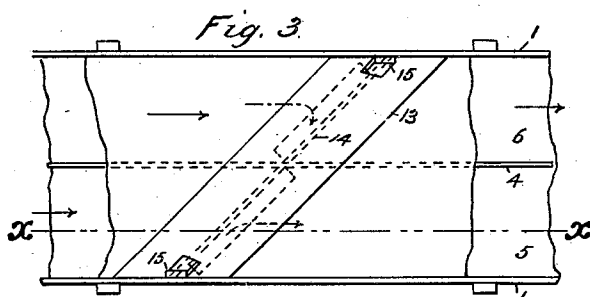
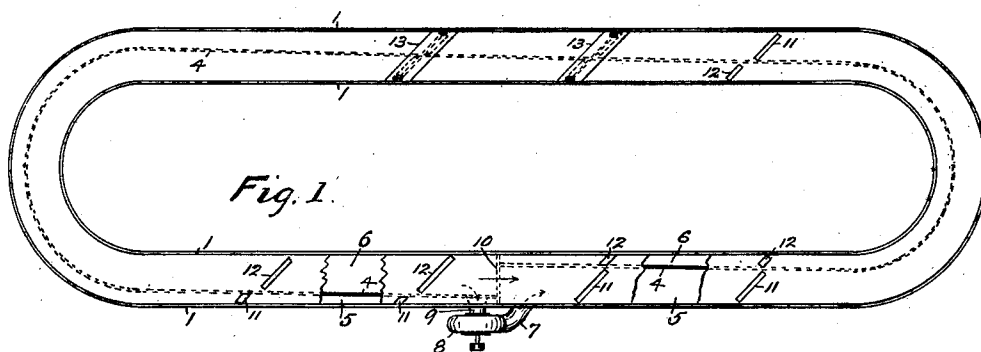


No. 896,940.

PATENTED AUG. 25, 1908.

M. ROSEN.  
PLEASURE CANAL.  
APPLICATION FILED JAN. 31, 1908.



Witnesses  
H. Martell.  
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# UNITED STATES PATENT OFFICE

MAX ROSEN, OF NEW YORK, N. Y.

## PLEASURE-CANAL.

No. 896,940.

Specification of Letters Patent.

Patented Aug. 25, 1908.

Application filed January 31, 1908. Serial No. 413,718.

*To all whom it may concern:*

Be it known that I, MAX ROSEN, citizen of the United States, and resident of New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Pleasure-Canals, of which the following is a specification.

The invention relates to improvements in pleasure canals or waterways; and the object of the same is the provision of an endless waterway in which a current of uniform velocity may be maintained at essentially a common level throughout its entire course, to permit of repeated passages of pleasure boats by the normal flow of the water actuated by impelling jets disposed along its course. In canals of this character as commonly constructed the water flows by gravity from a higher to a lower level and at the junction of the levels a break occurs in the continuity of the canal and the whole volume of water is gradually raised by mechanical means to the higher level to maintain the required current in the waterway. Special mechanism is also required to elevate the boats from the low to the high water level which necessitates the disembarkation of the passengers therefrom.

In describing the invention in detail reference is had to the accompanying drawings, forming part of this specification, and wherein like characters of reference are used to designate like parts throughout the several views, and in which—

Figure 1 illustrates a ground plan of one form of endless canal embodying my invention; Fig. 2 an enlarged transverse section of the same; Fig. 3 an enlarged plan view of a portion of the canal, showing one of the deflecting hoods for controlling the path of the water; Fig. 4 is a vertical section through line *x. x*, Fig. 3; and Fig. 5 is a detail view of one of the deflecting hoods.

The waterway is composed of two vertical side walls 1, a connecting bottom wall 2, and a horizontally - disposed partition 3, the latter extending the full length of the waterway and forming the floor of the canal proper. Below the floor, and separated by a vertical partition 4, are ducts 5 and 6, the former of which has a connection 7, leading from the pressure side of pump 8, and the latter duct is provided with a connection 9 leading to the suction of the pump. The terminals of the ducts adjacent the pump are separated by a vertical cross-portion 10,

shown in dotted line in Fig. 1. Formed in the horizontal partition 3 at regular and frequent intervals, throughout its length, are passages 11 leading from ducts 5 through which water is forced into the canal. Similarly arranged in partition 3 are passages 12 leading to duct 6 through which water flows under suction to the intake of the pump. Beginning at the connections of the pump the two ducts 5 and 6 are gradually reduced in transverse dimensions and proportioned in relation to the several passages to secure through the latter a uniform flow of water.

Over the several passages leading from ducts 5 and 6 are deflecting hoods, comprising a top-plate 13, a depending rib 14, and connections 15, the latter adapted to removably and adjustably secure the hood in place. By the vertical adjustment of the hood a regulated amount of water will be forced into and drawn from the canal proper, said inflow and outflow being separated by the depending rib 14. The direction of the flow of water beneath the hoods corresponds to the flow in the canal and the force of said water imparted by the pump is sufficient to impart a motion or current to the water contained in the canal, and a uniform current may be established therein by suitably adjusting the several deflecting-hoods.

It will be evident that the water within the canal being once set in circulation will require only such additional force from the pump to maintain such circulation as is necessary to overcome the friction of the walls of the canal, and in comparison with canals as commonly constructed in which the additional work of raising the water as well as the boats is required, the expense for power for the operation of canals on the lines of the present invention will be materially reduced. And likewise it will be seen that the present invention obviates the necessity of providing special mechanism for the elevation of the boats, and furthermore, secures greater convenience and commercial advantages in permitting continuing trips without necessitating the disembarkation of the passengers.

While the drawing illustrates a more or less regular waterway, it will be understood that the course may assume a sinuous shape as is commonly practiced in connection with various scenic effects, and it may also include one or more branch waterways for the storage or reception of boats.

It is to be understood that while I illus-

trate and describe the preferred embodiment of the invention, it is susceptible of various changes as regards its form, proportions, detail construction, and arrangement of parts without departing from the essential spirit and scope or sacrificing any of the advantages of the invention.

What I claim as my invention and desire to secure by Letters Patent, is—

10 1. A canal comprising an endless navigable waterway having continuous side and bottom walls and means operating at suitable intervals along the waterway to impart motion to the contained water whereby a current of substantially uniform level is maintained.

2. A canal comprising an endless navigable waterway having continuous side and bottom walls, passages communicating with the waterway at suitable intervals and adapted to deflect a current of water into said waterway and means for supplying water under pressure to said passages.

3. A canal comprising an endless navigable waterway having continuous side and bottom walls, passages communicating with the waterway at suitable intervals and adapted to deflect a current of water into said waterway, means for supplying water under pressure to said passages and means leading from the waterway for supplying the pressure means.

4. A canal comprising an endless waterway, a duct longitudinally disposed below said waterway, passages communicating be-

tween the duct and the waterway and adapted to deflect a current of water into the latter, means for supplying the duct with water under pressure and means leading from the waterway for supplying the pressure means. 40

5. A canal comprising an endless waterway, ducts longitudinally disposed below said waterway, and provided with passages communicating with the latter, and means for circulating water through said ducts and passages. 45

6. A canal comprising an endless waterway, ducts longitudinally disposed below said waterway and provided with passages communicating with the latter, means for circulating water through said ducts and passages, and a deflecting-hood disposed above said passages for directing the flow of water in the waterway.

7. A canal comprising an endless waterway, ducts longitudinally disposed below said waterway and provided with passages communicating with the latter, means for circulating water through said ducts and passages, and an adjustable deflecting hood disposed above said passages for directing the flow of water in the waterway. 60

Signed at New York in the county of New York and State of New York this twenty-eighth day of January A. D. 1908.

MAX ROSEN.

Witnesses:

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