M. L. KING.

PORTABLE APPARATUS FOR OBTAINING WATER-POWER.

No. 194,826. Patented Sept. 4, 1877.

Fig. I.

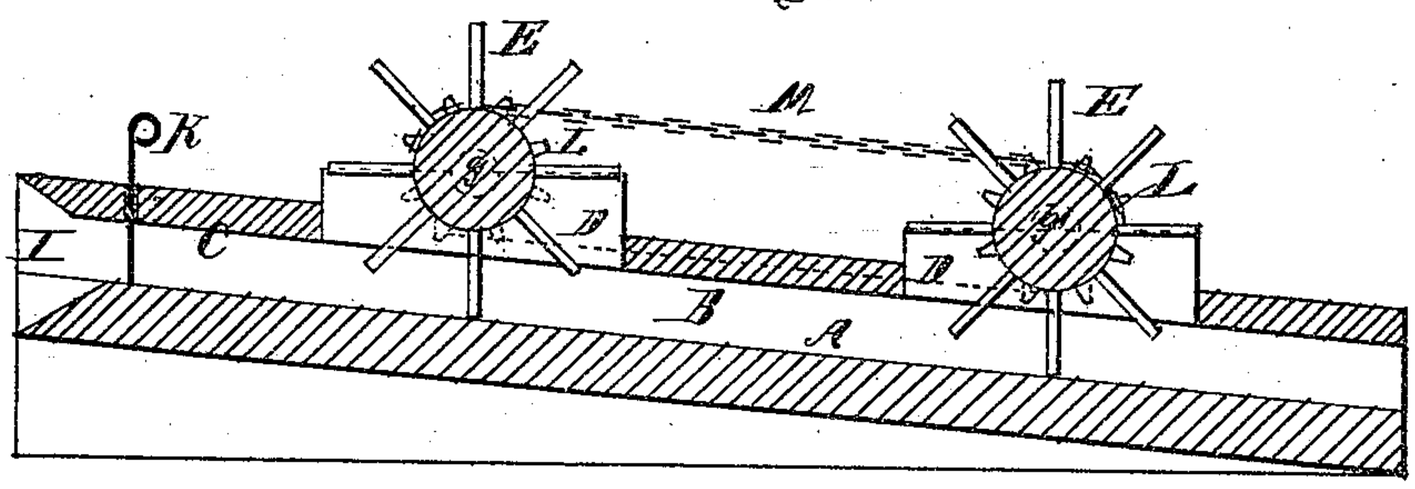
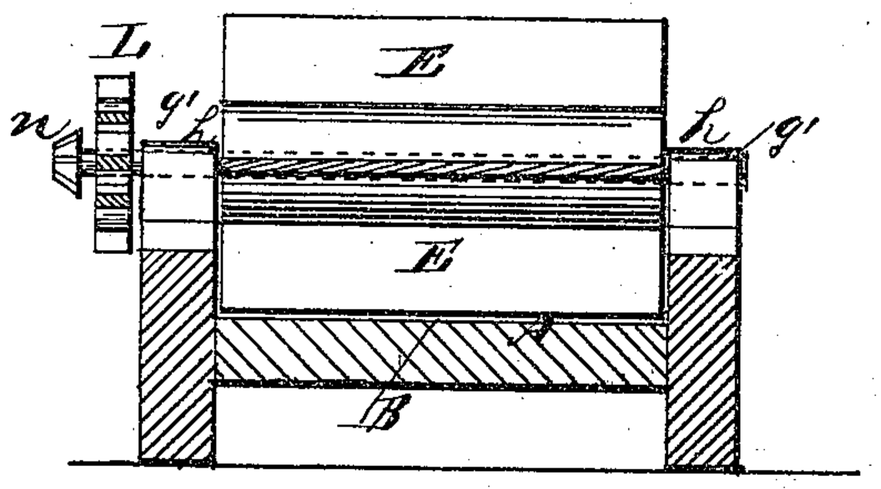


Fig. II.



Witnesses:
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UNITED STATES PATENT OFFICE.

MARCUS L. KING, OF BELMONT, ILLINOIS.

IMPROVEMENT IN PORTABLE APPARATUS FOR OBTAINING WATER-POWER.

Specification forming part of Letters Patent No. **194,826**, dated September 4, 1877; application filed October 25, 1876.

To all whom it may concern:

Be it known that I, MARCUS L. KING, of Belmont, Wabash county, State of Illinois, have invented new and useful Improvements in Portable Apparatus for Obtaining Water-Power, of which the following is a specification:

The object of my invention is to provide a floating portable apparatus for obtaining power from the flow of a stream of water.

My invention consists in constructing, of wood, a float in such a manner that the water is introduced through an opening or a mouth with a gate into a channel or inclosed space, with an inclined plane at the bottom, and with a corresponding cover at the top, both placed between two parallel side walls.

In the top cover are cut holes, in which water-wheels are placed, descending downward into the channel nearly to the top of the inclined plane, which is at the bottom.

Bearings or journals for the axles of these wheels are provided for by placing the same over the side walls at the sides of the top cover.

To the ends of the axles of the wheels are keyed cog-wheels, into which meshes a chain, which serves to equalize the power obtained from the different wheels employed, and thus give a steady motion to the machinery to be driven by the power obtained. To the extreme end of one of the axles is keyed another cog-wheel, from which the power is transmitted to the machinery by letting a cog-wheel from the main shaft of the machinery mesh into the cog-wheel on the end of the wheel-axle.

The described portable apparatus is placed in a running stream and inclosed therein, and weighted down with suitable ballast, so that the water will flow in through the mouth into the channel, and thus set the wheels in motion.

The machinery to be driven by this power may be placed on shore, or it may be placed in a vessel or on a float, as may be found most desirable.

In order to describe my invention more fully I refer to the accompanying drawing.

Figure I represents a longitudinal sectional elevation of my improved portable apparatus for obtaining water-power. Fig. II is a transverse section of the same.

A is the inclined plane at the bottom of the channel B. C is the top cover of the channel B, with openings D D, in which are placed the water-wheels E E, the axles *g g'* of which are journaled in the bearings *h h*. I is the mouth or opening leading into the channel B, of a bell or funnel shape. K is the flood-gate, by which the water-supply into the channel may be regulated or cut off altogether. L L are cog-wheels on the end of the axles *g g'*, into which meshes the chain M. *n* is another cog-wheel on the extreme end of the axle *g'*, by aid of which the machinery to be driven by this power is set in motion.

Having thus described my invention, I desire to claim—

A portable or floating water-power apparatus, consisting of the inclosed inclined channel B, having a funnel-shaped mouth, in combination with two or more water-wheels, E, geared together, as and for the purpose substantially as described.

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