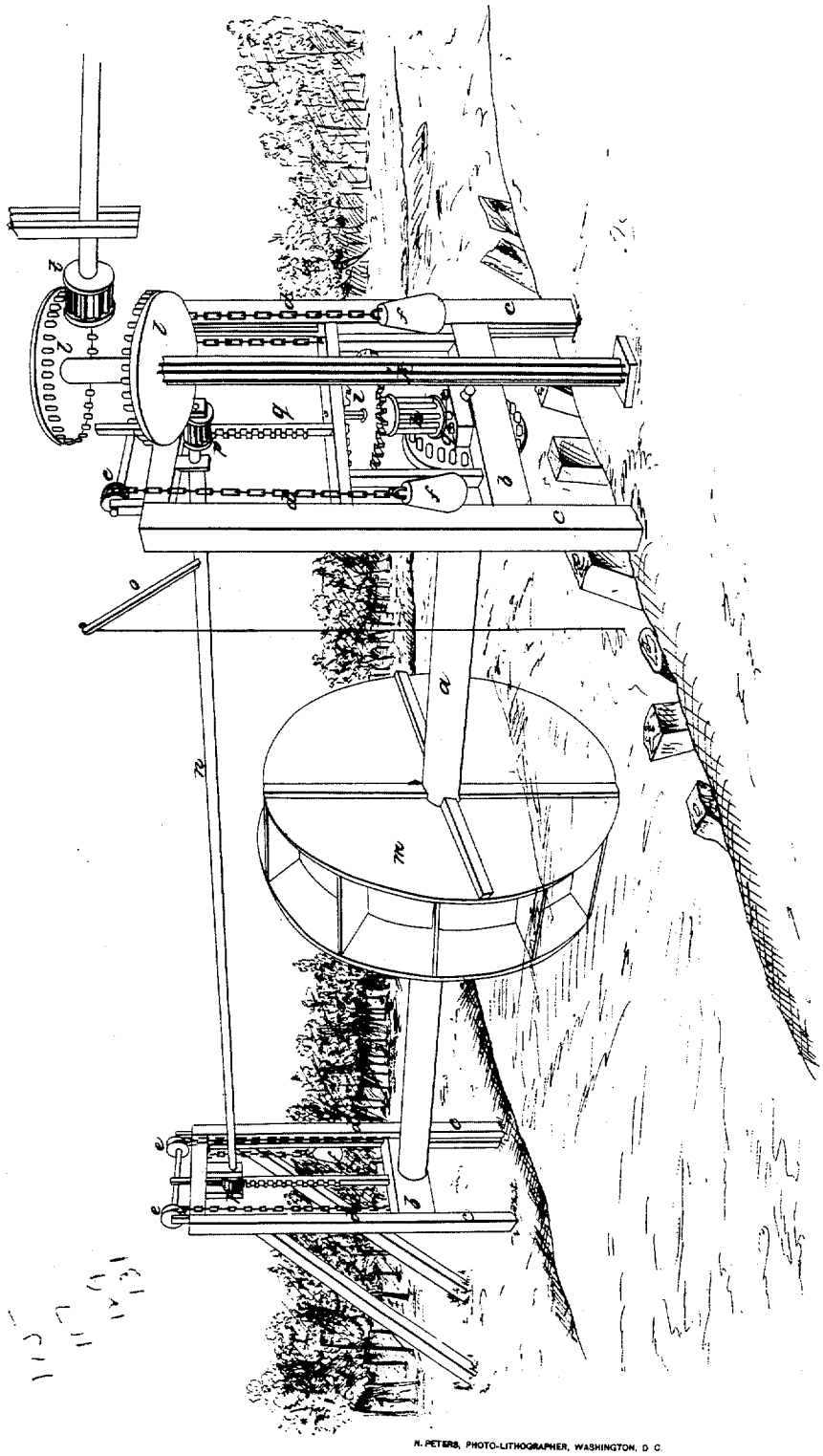
416-185

J. Bennett,

Water Wheel,

7.197 ×

Patented Aug. 10, 1832.



N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

7197x Aug. 10. 1838

James Bonnell of Vigo Indiana
Letters Patent

The Schedule referred to in these Letters Patent and making part of the same containing a description of the mode of the said James Bonnell's mode of his improvement in propelling Mills on Rivers by force of the current or tide by a suspended water wheel & head block

To all to whom these presents shall come. Be it known that I James Bonnell of the County of Vigo and State of Indiana have invented a new and useful improvement in propelling mills on Rivers by force of the current or tide by a suspended water wheel, and head block, and that the following is a full and exact description of the construction and operation of the said machine as invented & improved by me.

The water wheel shaft may be 40 or 50 feet long, and to be horizontally across the stream. The head blocks are to slide between two posts at each end which have ways for it to slide in so that it may be raised or lowered as the tide may require.

There are two large chains fastened to each head block and which go up around or over the pulleys on the top of the frame which slide in and which have large weights at the end of them heavy enough to balance the water wheel and head block. so as to make the wheel stand wherever it is set.

On the end of the water wheel shaft there is a wheel with 40 or 50 cogs in it which works in a pallower of 18 or 20 rounds which is on a shaft that stands on the head block, which works up and down with the water wheel, and in this upright shaft above the pallower there is a spur wheel with 50 or 60 cogs in it which is to work into a stationary shaft which is fluted from the bottom up as high as the water wheel ever wants to be raised, and on the top of the long upright shaft there is a spur wheel as large as it will bear not to touch the chains or head blocks.

The water wheel may be from 16 to 18 feet high and should have

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6 or 8 Buckets and may be let into the water 5 or 6 feet deep & will work very well in a current that moves at the rate of two miles an hour. The water wheel is to be raised out of the water to stop the mill by a lever which works in a roller having a wallower at each end, which roller is fastened on the same head blocks with the pulley shaft and moves two small pieces of timber fastened in the head blocks beside the chain and which go up to the wallowers that are on the pulley shaft, and have cogs to as to work with them and by this lever the wheel is to be raised for stopping the mill and accordingly the different stages of the water. To work this suspended water wheel in a tide water where ebbs and flows have two cog wheels on the stationary shaft so far apart as to let a wallower between out of one into the other and the mill will continue the same way.

The head blocks are made by two side pieces having double mortises in each end, about one foot from the end for the upper & lower head blocks to go through, and the end of the tenons to go through far enough to work on a groove for them to slide in

Witness
Thos H Blake
Wm Lindley

James Y Bennett

(700 Mills)

(Granted August 10. 1832)