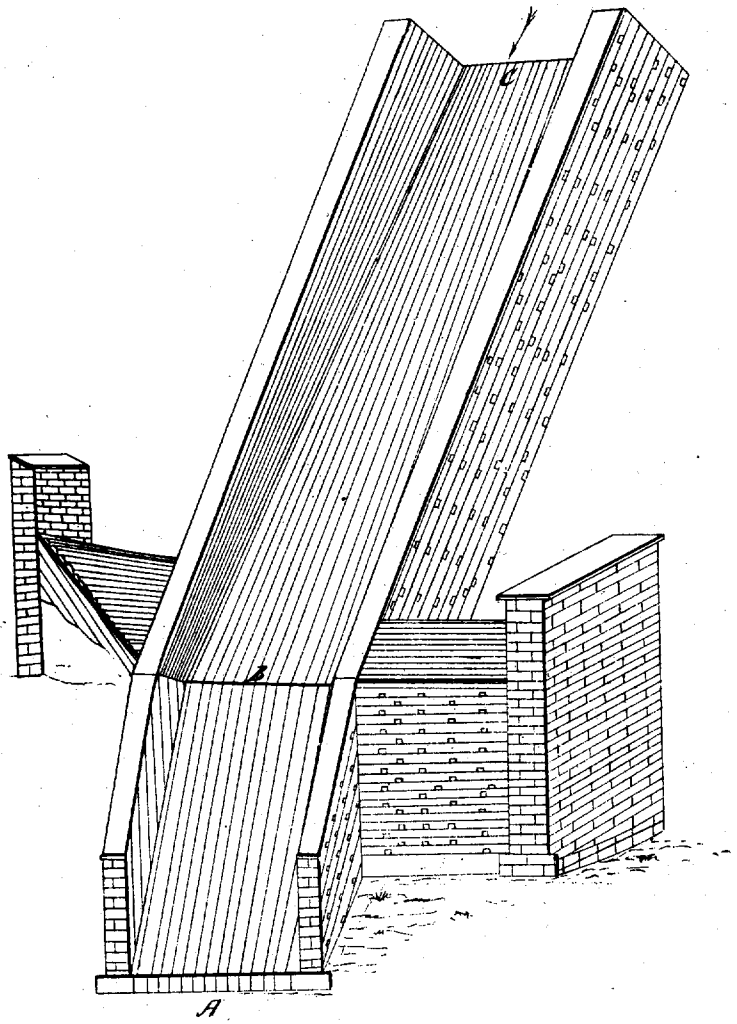
8430X

A. Addis.

Chute.

Patented Oct. 4, 1834.



James Addis
Letters Patent

8130X

The Schedule referred in these Letters Patent and making part of the same containing a description in the words of the said James Addis himself of his improvement in the construction of Chutes or Sluices in dams for the purpose of facilitating the descent of Rafts, Boats, and other Craft with safety

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To all to whom these Presents shall come

Be it known that I James Addis of Washington Township in the County of Luzerne and State of Pennsylvania have invented a new and useful improvement in the construction of Chutes or Sluices in dams for the purpose of facilitating the descent of Rafts, Boats and other Craft with safety and that the following is a full and exact description of the construction and operation of the said Machine as invented or improved by me.

The entrance or mouth of the Chute as at present constructed being directly at the head of the Dam, the whole force of the water in the pool of the dam being concentrated to that point forces such a quantity of water into the Chute at the entrance that it cannot escape or pass through with sufficient rapidity to avoid the great pressure from behind; this rushing of the water through the chute occasions the great break or reaction below, and thus causes the destruction of much property. To obviate the difficulty is the object of the present improvement which consists in the mouth of the Chute being carried, or extended up into the pool of the Dam, in distance of 20 to 80 feet, according to the height of the Dam and length of water backed in the pool and the bottom of the Chute at its mouth to be fair with the bed of the River, and graduated from thence on the plan of an inclined plane 5 to 20 feet high. If the Dam should be 6 or 12 feet in height, all the bottoms of the improved Chutes to be graduated in the same proportion with base or a line according to the height of dams or where they meet the entrance or mouth of dams in the old Chutes, where the descents of the present Chute

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commence, when it gradually falls again on the same inclined plane plan. and by extension of the Chute into the pool of the pool of the Dam 50 to 310 feet it will only require 100 feet of a Chute below the breast of the Dam. If the improved Chute is extended from 210 feet to any given number of feet to 800. feet more or less, into the pool of the dam then it will only require 50 feet of a Chute below the breast of the Dam. Thus this improved Chute can be run at all times, when the River is increasing or decreasing. And by extending the summit of the inclined plane of the bottom of the improved Chute above the breast of the Dam 50, 100 or 300. feet, or as much more as would be proper to overcome the press of water in the pool of the Dam, this will shorten the Chute below the breast of the Dam to 45 feet this will destroy and carry of the gravel bar which the present Chutes create,

By this improvement the mouth of the Chute is in dead shallow water, which prevents such a force and rushing to the entrance (or of course not such a break or reaction at the discharge of the Chute into the river below the Dam, and the water not being driven through with such force and velocity, not moved much faster than the water in the pool of the Dam. the descent is easy and safe, and not attended with such difficulty and loss of Property as is the case in running through the common Chutes,

To extend the improved Chute as far as the water is backed in the pool of the Dam there would be but a trifling difference between the current in the pool of the Dam and current in the Chute,

By this Improvement I claim every mode of extension of the Chute into the pools of the Dams as all extensions above the breast of the Dam is my Improvement on the present Chute with the inclined plane to the bottom of said Chute

Witnesses

Amos Addis

Edd. Abm Taggart

WK John Shaffer

Drawing

770 words