

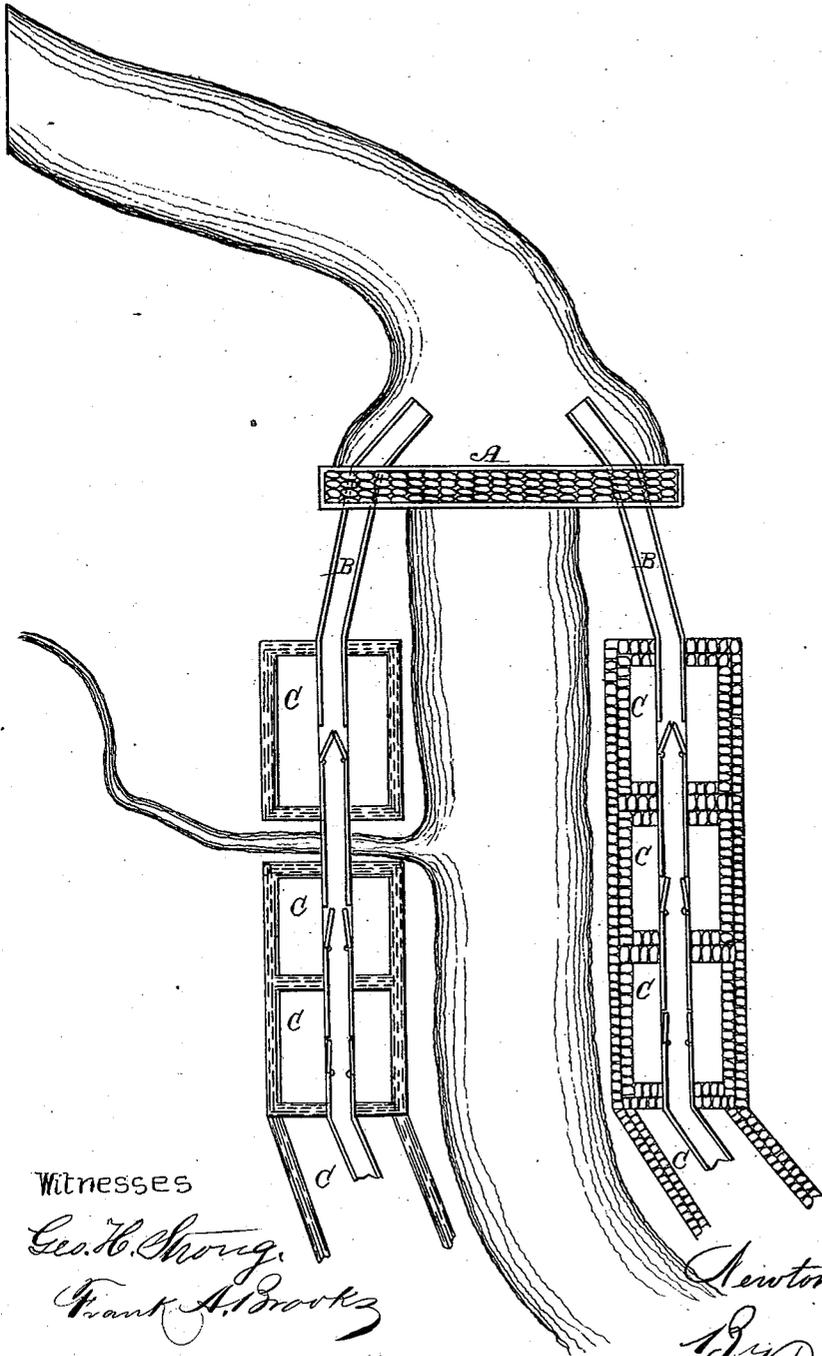
(No Model.)

N. SEWELL.

Method of Relieving River Channels of Sediment
and Forming Levees.

No. 235,967.

Patented Dec. 28, 1880.



Witnesses

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UNITED STATES PATENT OFFICE.

NEWTON SEWELL, OF MARYSVILLE, CALIFORNIA.

METHOD OF RELIEVING RIVER-CHANNELS OF SEDIMENT AND FORMING LEVEES.

SPECIFICATION forming part of Letters Patent No. 235,967, dated December 28, 1880.

Application filed May 12, 1880. (No model.)

To all whom it may concern:

Be it known that I, NEWTON SEWELL, of Marysville, county of Yuba, and State of California, have invented a Method for Relieving River-Channels of Sediment and Forming Levees; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to a method for relieving the channels of water-courses from the sediment which may be brought down by the water, and for utilizing the same in the formation of levees upon each side of the stream to aid in the reclamation of the land; and it consists of a dam or dams built across the stream and having flumes or ground-cuts leading out therefrom to the banks of the stream below. At suitable points upon the banks of the stream, below the dam or dams, a succession of inclosures are formed, of earth, either loose or in sacks, or other material formed in any suitable manner, so that the water from the flumes may be led into them and the sediment contained in the water allowed to settle, the water being drawn off and allowed to flow back into the stream. When the first inclosures have been filled with the sediment the flumes are allowed to discharge into the next inclosures, and the levee may thus be built of any desired length, width, and height. By adding to the inclosing-walls and filling the new space any height may be attained.

Referring to the accompanying drawing for a more complete explanation of my invention, the figure is a plan view of my levee-forming devices.

The disposition of the sediment which is brought down rivers, and especially those rivers where hydraulic mining is extensively carried on in the upper portions of their course, is a matter of serious consideration. Already some of the rivers of California have been filled with the tailings from these mines to a depth of more than twenty-five feet, and the safety of cities and the surrounding country is endangered during the rainy season by the overflow of the water from the streams. Agricultural lands are also ruined by the deposit of sediment. In order to prevent this overflow, and also the further filling up of the beds of important streams by the continued deposit of tailings, it is neces-

sary to build levees to keep the water within the channel, and at the same time provide for the disposition of the mud, tailings, or earthy sediment which is continually brought down by the stream. My invention contemplates the performance of both these operations in one, and in order to carry it out I build a dam at A, of any desired height and material. The water and sediment brought down by the stream are collected within the reservoir formed by this dam, and are led out from it by means of flumes or ditches B, upon one or both sides of the river, as may be desired. Upon the banks of the stream, or at the point where it is desired to form the levee, I build a succession of inclosures, C, with walls of earth or other suitable material, in sacks or otherwise. These inclosures are made as wide as it may be desired to form the levee, and the water is allowed to flow from the flume into them. The sediment will settle from the water on account of the checking of its flow and the comparative quiet of the water. When the sediment has thus been deposited the water is allowed to flow back into the channel of the stream and continue its course. The flow of water and sediment into the inclosures is continued until the first inclosure has been filled to a point as high as may be desired. The second inclosure is then filled, as in the first case. The flumes are provided with gates, which are adapted to control the flow of water into each inclosure, as may be desired. By this construction the levee may be extended indefinitely.

Where other streams enter the main one they are allowed to flow through the levee, and the flumes or ditches are carried across these entering or branching tributaries. If these tributaries also carry considerable sediment, they may be provided with dams and ditches or flumes, and the sediment from them also deposited upon the main or branch levees, as may be required. By this means I am enabled to relieve the waters of the streams of the sediment which would soon choke the channel and fill it up, and at the same time I deposit this material at any point desired, either to build a levee or to reclaim and fill up low sunken land.

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

5 The dam A in the stream or channel, and the flumes or sluices B, leading from the channel above the dam to the shore, in combination with the series of inclosures C, whereby the water may be taken from the stream and

caused to deposit its sediment continuously to form levees, substantially as herein described. 10

In witness whereof I have hereunto set my hand.

NEWTON SEWELL.

Witnesses:

S. H. NOURSE,

FRANK A. BROOKS.