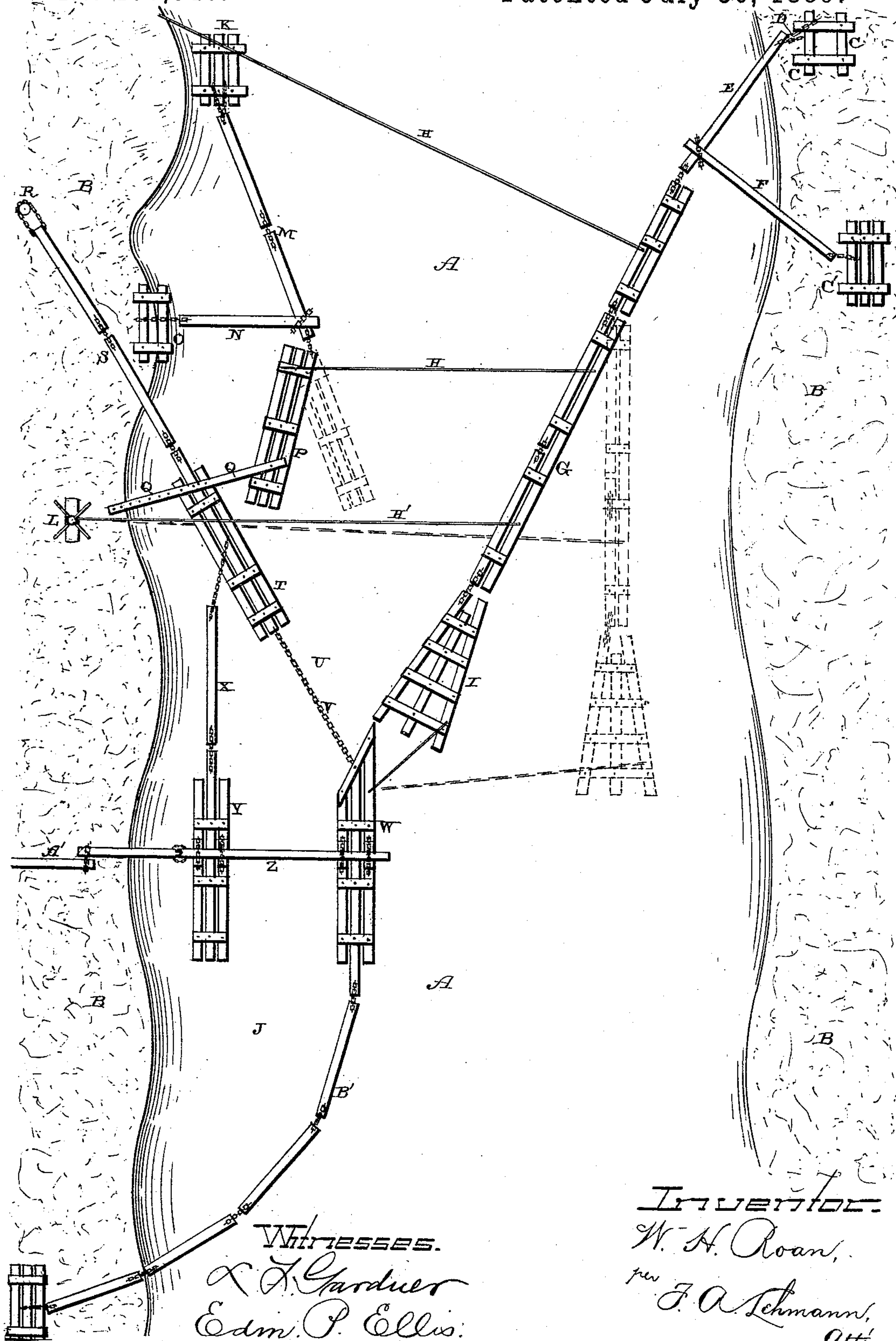


(No Model.)

W. H. ROAN.
LOG BOOM.

No. 408,046.

Patented July 30, 1889.



UNITED STATES PATENT OFFICE.

WILLIAM HENRY ROAN, OF WILLIAMSBURG, KENTUCKY.

LOG-BOOM.

SPECIFICATION forming part of Letters Patent No. 408,046, dated July 30, 1889.

Application filed December 6, 1887. Renewed May 3, 1889. Serial No. 309,545. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HENRY ROAN, of Williamsburg, in the county of Whitley and State of Kentucky, have invented certain new and useful Improvements in Log-Booms; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it pertains to make and use it, reference being had to the accompanying drawing, which forms part of this specification.

My invention relates to an improvement in swift-water log-booms; and it consists in the combination and arrangement of parts, which will be more fully described hereinafter.

The object of my invention is to construct a swift-water log-boom gap for catching and retaining logs and floating débris, and in which the parts are made adjustable, so that the sheer can be opened to allow the logs and débris to pass down the stream, or can be closed so as to force them to pass through a swift-water gap into the boom, where they will be retained.

The accompanying drawing represents a plan view of a log-boom embodying my invention.

A represents the stream of water, and B the shore upon each side thereof. Upon one of the shores is built or formed, in any suitable manner, a fastening C, which is composed of a number of logs secured rigidly together, and which are anchored in place upon the shore in any way preferred. Fastened to this fastening C, by means of the chain D, is a log E, which extends diagonally from the shore outward across the stream, and which is braced rigidly in position by the log or brace F, which has its shore end fastened to a second fastening C', as shown. By means of this brace F the log E is retained at the angle at which it is adjusted, and this log forms the upper end of the sheer. The sheer G, which consists of a number of logs preferably fastened together in pairs, is fastened to the log E and is held at any desired angle across the stream by means of a series of ropes or wires H, as shown. These ropes or wires H may have one of their ends fastened either to some stationary object upon the shore, or they may be

fastened to rafts which are floating upon the water and which form a part of the boom. The lower one of the ropes H' has its inner end fastened to a windlass L, which is placed upon shore, and by drawing up upon this rope the sheer may be drawn outward across the stream or allowed to move backward toward the shore, so that the raft I, fastened to the lower end of the boom, will not close the gap and force the logs and débris into it. When the rope H' is tightened up by means of the windlass, the sheer G and the raft I are drawn outward, so as to deflect all of the logs into the boom J.

Upon the opposite side of the stream from the fastening C C' and the log E, which form the upper end of the sheer, there is anchored in the stream a fastening K, and to the lower end of this fastening K is attached the sheer M, which is preferably formed of single logs chained together at their ends, and which are held at any desired angle from the shore by means of the brace N, which has its inner end attached to a suitable fastening O at the edge of the stream and its outer end rigidly secured to the lower end of the sheer M. Fastened to the lower end of the sheer M is the adjustable raft P, which is held at any desired angle to the sheer G by the brace Q, which is provided with a series of holes or perforations, through which pins, stakes, or fastening devices can be driven. By means of this perforated brace Q the raft P can be adjusted in and out upon the stream and thus contract the space through which the logs and floating débris will pass, or can be moved, as shown in dotted lines, so as to deflect the floating logs down the stream past the mouth of the boom. When in the position shown in dotted lines, and the raft I is also moved into the position shown in dotted lines, all logs will pass on down the stream.

Sunk or fastened into the ground is the post R, to which the logs S are fastened by means of the chain, and these logs extend diagonally across the shore down the stream. To their lower ends is fastened the raft T, which forms one side of the swift-water gap U. The brace Q extends across the upper end of this raft T and to which the brace can be fastened. Extending from the lower end

of the raft T is the chain V, which extends across the swift-water gap U and helps to anchor the raft W in place; also, fastened to the raft T, through the log X, is the raft Y, 5 between which and the raft W the floating logs must pass in order to get into the boom J. The upper ends of the two rafts W Y are so shaped as to deflect the floating débris and cause it to float on down past them into the 10 boom J. These two rafts W Y are connected together by the brace Z, which consists of a number of logs fastened together and which are fastened at their shore end to the log A', which is sunk endwise into the ground. The 15 outer one of the logs of the brace Z extends across the tops of the rafts W Y, under which the logs pass floating into the boom. The ends of the logs which comprise the brace Z are concaved, as shown, so that they can 20 move up or down as the river rises or falls.

One of the shores of the stream forms one side of the boom and the logs B' form the other. The raft D is made adjustable by means of the brace Q, for the purpose of be- 25 ing moved outward across the stream at such an angle as to protect the front end of the raft W from the floating logs when the raft I is removed, so as to let the logs float freely down the stream. Were it not for this raft 30 D the logs would strike against the raft and either injure or displace it. The brace Z is raised upward by means of head-blocks placed upon the rafts W Y, so that the logs will float freely under it.

35 Having thus described my invention, I claim—

1. The combination, with the rafts W Y,

which form the mouth of the boom and which are connected together by the cross-piece or log Z, which extends across their tops at an 40 angle, and which is connected at its inner end to suitable fastenings connected to the shore, the log X and chain V, which are connected to the upper ends of the rafts W Y and to the raft T, and the sheer G, which is made 45 jointed near its upper end and which is adapted to be moved laterally, a chain or rope H', connected to the sheer, and the windlass, whereby the sheer can be moved laterally, substantially as shown. 50

2. The combination of the sheer G, loosely connected at its upper end to the log E, which is suitably fastened and braced to suitable fastenings on shore, and which is jointed so that it can be adjusted laterally, the ropes or 55 chains H H', for holding the sheer in position, the raft K, the logs M, extending therefrom and braced in position in the stream, the raft P, fastened to the lower end of the logs M, the brace Q, fastened to the rafts P T, the 60 raft T, anchored by suitable connections S, the rafts W Y, connected to the raft T by the log X and chain V, the cross-piece Z, which extends across the tops of the rafts W Y, and the logs B', fastened to the raft W at one end 65 and to the shore at the other, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM HENRY ROAN.

Witnesses:

HENRY INMAN,
JOHN WILLIAMS.