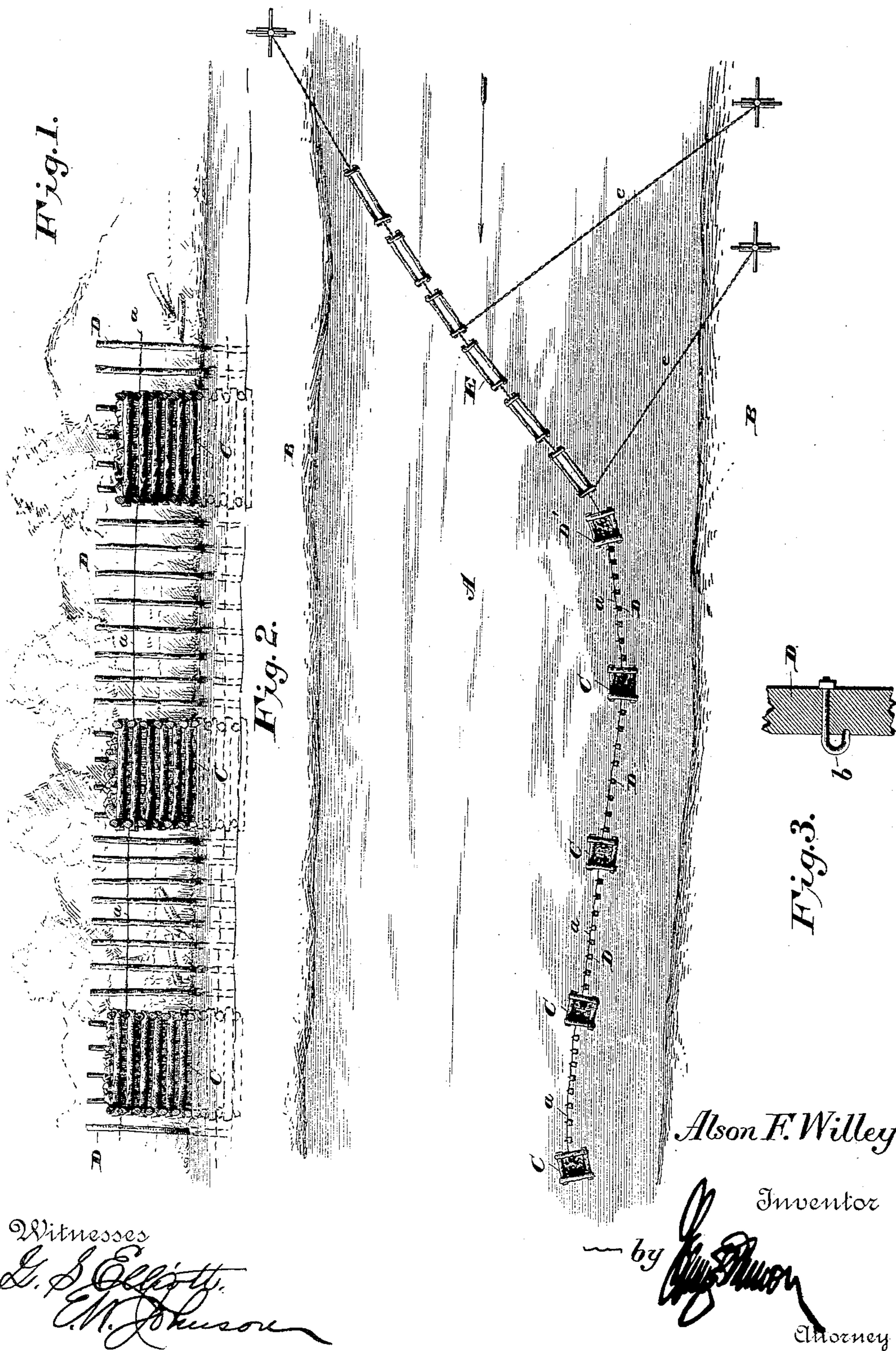


(No Model.)

A. F. WILLEY.
LUMBER BOOM.

No. 445,107.

Patented Jan. 20, 1891.



Witnesses
L. S. Elliott
A. M. Johnson

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UNITED STATES PATENT OFFICE.

ALSON F. WILLEY, OF BLUFF CITY, TENNESSEE.

LUMBER-BOOM.

SPECIFICATION forming part of Letters Patent No. 445,107, dated January 20, 1891.

Application filed August 28, 1890. Serial No. 363,272. (No model.)

To all whom it may concern:

Be it known that I, ALSON F. WILLEY, a citizen of the United States of America, residing at Bluff City, in the county of Sullivan and State of Tennessee, have invented certain new and useful Improvements in Lumber-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 appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in log-booms.

The object of the invention is to provide a log-boom for catching and retaining the floating logs, the main portion of the boom being made up of fixed pens, between which are rigidly secured upon cables and retained in place a series of vertical posts which extend below the water to the bottom, and with the pens make up a pocket, within which the logs are confined, said device being adapted to be used with a sheer loosely connected to the upper pen at upper end of pocket and adapted to be stretched diagonally across the stream, for running the logs into the pocket.

In the accompanying drawings, forming part of this specification, Figure 1 is a side view of a portion of a log-boom constructed in accordance with my invention. Fig. 2 is a plan view. Fig. 3 is a sectional view through one of the vertical posts.

A refers to a stream of water, the current of which flows in the direction shown by the arrow, and B B refers to the shore on each side of the stream. Adjacent to one of the shores is built a series of fixed pens C C, which are made up of logs or timber and filled with stone. Into or through these pens pass a series of cables *a*. When said cables terminate in the pen, they are made fast to a cross-piece, and under all circumstances these cables are confined therein. The cables are stretched as tight as practicable, and by means of bent bolts the posts D D are securely attached thereto. To the upper pen D' is secured a sheer E, of ordinary construction, which is adapted to be swung diagonally across the

stream and is made fast to a suitable fixture or windlass. A cable *e* may also be attached to the upper end of the sheer E for drawing the same to the opposite bank when not employed for guiding the logs between the sheer and pens into the pocket. By providing the posts with perforations, through which pass the bolts, having bent ends *b*, attached to said posts by nuts, these bolts may be loosened to permit the posts to be adjusted upon the cables, as when the bolts are loosened the posts can be slid upon the cables to leave a space to pass the collected logs out into the stream.

This boom is designed more especially for swift-running streams with rocky bottoms, and can be made the proper height to accommodate the rise of water. The cables being stretched through the pens the whole length of the system and the uprights going to the bottom of the stream, makes the system very strong, and entirely stops logs from working through and under the booms, as is always the case with the old-fashioned floating boom. Logs can be jammed into a pocket of this kind with the swiftest of water without any danger of any loss whatever, as the logs can pile in solidly from the bottom of the river to the tops of the pens and by this system be securely fenced in and safe, where with a floating boom the logs would sometimes nearly all of them be driven through in underfloating booms and lost.

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

1. In a lumber-boom, a series of rigid structures or pens permanently located in the bed of a stream and extending from said bed above the water-level, cables rigidly secured to said pens, a fence made up of vertical posts, which are secured to the cables between the pens, said posts extending from the bed of the stream above the water-level, and a floating sheer secured at one end to the fixed pen, substantially as shown, and for the purpose set forth.

2. In a lumber-boom, a series of pens or permanent and rigid structures built in the bed of the stream so as to extend above the water-level, cables rigidly secured to the pens and stretched between them, a series of ver-

tical posts secured to said cables, so as to be maintained in a vertical position, said posts extending from the bed of the stream above the water-level, bolts having bent ends secured to the posts so as to grasp the cables and permit the vertical post to be moved to form an opening or passage-way between the pens, and a sheer attached to the upper pen and connected to windlasses on each side of

the stream, the parts being organized substantially as set forth.

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

ALSON F. WILLEY.

Witnesses:

THOS. CURTIN,
H. W. EWING.