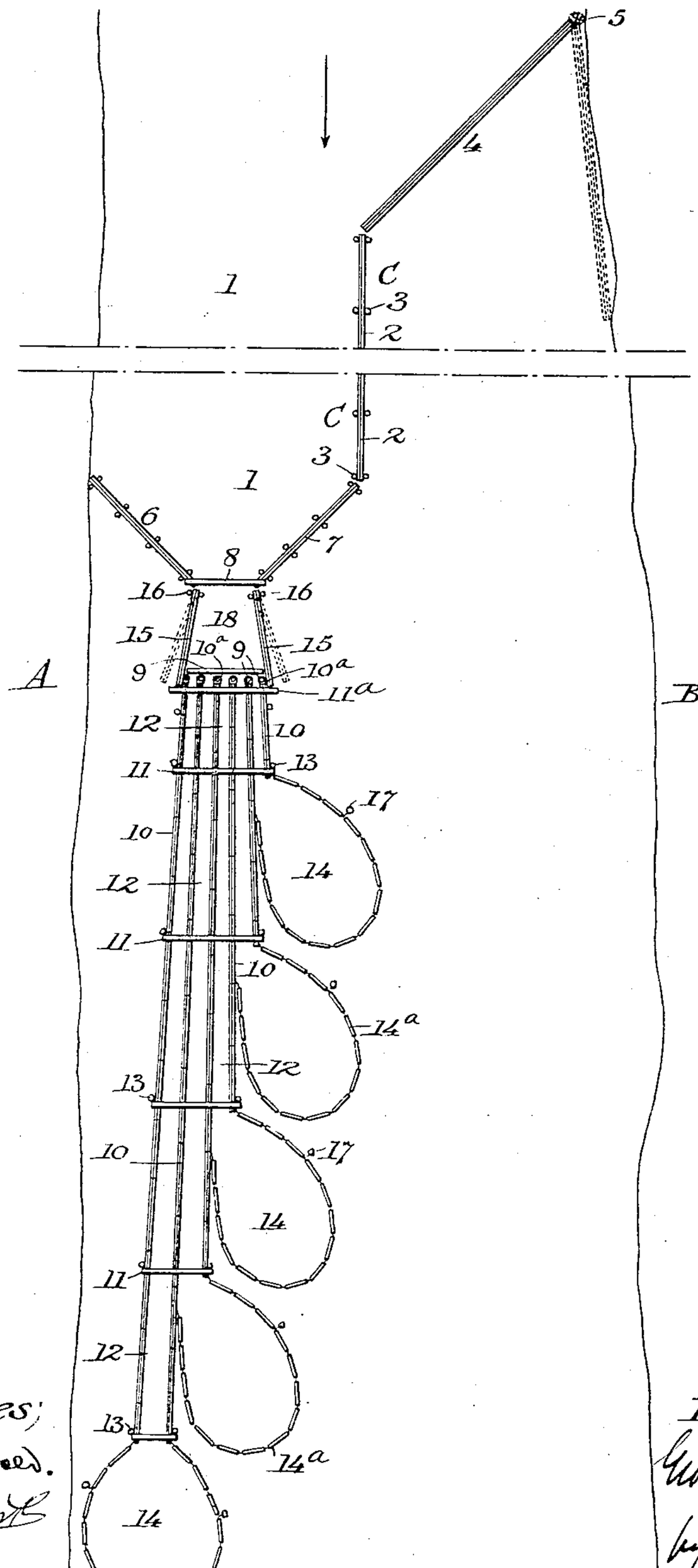
No. 633,515. Patented Sept. 19, 1899.

G. H. HOWZE.

LOG BOOM.

(Application filed Feb. 2, 1899.)

(No Model.)



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UNITED STATES PATENT OFFICE.

GEORGE H. HOWZE, OF MOSS POINT, MISSISSIPPI.

LOG-BOOM.

SPECIFICATION forming part of Letters Patent No. 633,515, dated September 19, 1899.

Application filed February 2, 1899. Serial No. 704,258. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. HOWZE, of Moss Point, in the county of Jackson and State of Mississippi, have invented certain new and useful Improvements in Log-Booms, of which the following is a specification, reference being had to the accompanying drawing and to the reference characters marked thereon.

This invention relates to an improved log-boom for gathering into an assorting-gap loose logs and timber as they float down stream, in which gap they are assorted by the lumbermen with reference to their ownership, quality, size, or other distinction and directed into the mouths of a series of individual gaps, through which they are carried by the current and finally delivered into pockets, one at the end of each individual gap, there to remain until rafted or towed to the mill.

The drawing represents in plan view a portion of a river with my invention in place near one bank.

A holding-boom 1, which may be several miles long, is constructed near one shore A of a river, the shore serving as one side of the boom. The other side of the boom consists of a float C, formed of boom-sticks 2, connected endwise by chains or other couplings and held in position by piles 3, driven into the bed of the river on each side of the float, and by chains or other fasteners attached to the float and to the piles. The boom-sticks 2 are each formed of pieces of timber or logs, one or more in number, bolted together, each being about twelve by twelve inches across or larger and of any convenient length.

The boom 1 is placed, as shown, on one side of the river, by which arrangement navigation is not interfered with. If no provision were made to direct the floating logs into the holding-boom many would be lost. This difficulty is overcome by means of a drift-sheer 4, suitably hinged to piles or other supports 5 on the shore B a short distance above the entrance to the holding-boom 1. When logs are not floating downstream, the drift-sheer 4 lies against the bank B, as represented by dotted lines; but when the logs are to be collected in the holding-boom 1 the free end of the sheer 4 is drawn, through the instrumentality of ropes, chains, or cables, across the open part of the stream to the upper end of the outer side or float C of the boom 1 and secured, thus closing the stream and deflecting the floating logs into the holding-boom 1.

The lower end of the holding-boom 1 is contracted by means of a sheer 6, extending from the shore outwardly and from the outer side or float C of the holding-boom 1 inwardly and held in position by means of piles 3, placed on both sides of each sheer and secured thereto by chains or otherwise. As thus constructed the delivery end of the holding-boom 1 is reduced to a width of, say, thirty feet, more or less, by the converging of the two sheers 6 7. The lower ends of the sheers 6 7 are connected by a timber 8, raised above the surface of the stream sufficiently high to permit logs passing freely thereunder.

Below the delivery end of the holding-boom a distance of one hundred feet, more or less, is driven a line of piles 9, preferably parallel to the timber 8. From each pile 9 a float 10, formed of boom-sticks, extends in a downstream direction, the series of floats being slightly divergent and of unequal length. They may, however, lie parallel to each other and be of equal length, if desired. The floats 10 are held together and in proper relation to each other by means of cross-timbers 11 11^a, which are raised about two feet above the surface of the river and bolted to the aforesaid floats, which are attached by chains to piles 13. The spaces between the floats 10 form gaps 12, into which the logs are directed by the lumbermen standing on the timber 8, and the timber 11^a uniting the floats 10 behind the piles 9. The shortest float is that one on the side nearest the shore B, the succeeding ones increasing in length, except the two inshore ones, which may be of equal length. The gaps 12 gradually increase in width toward their lower ends, each terminating in a pocket 14, formed of a number of logs 14^a, called a "skin," flexibly connected at their ends and extending in a curved line from the lower end of each float 10 to the next float on the left, to which it is fastened a short distance below the adjacent cross-timber 11.

A pile 17 is driven into the stream at a suitable point above each pocket 14, to which the line of connected logs or skin 14^a is attached,

the object being to hold the pocket 14 open. More than one pile may be used for each pocket when found necessary.

A timber 15, flexibly attached to piles 16 or timbers 6 and 7, extends from each end of the cross-timber 8 to the ends of the cross-timber 11ª, to which ends they are attached by chains or other removable fastenings. The timbers 15 serve as gates, which can be opened at proper times to permit the escape of trash and drift from the assorting-gap 18.

Logs, ice, and drift material of all kinds floating downstream pass directly into the holding-boom 1 or are directed thereinto by the drift-sheer 4. The holding-boom 1 being convergent at its lower end, all floating material must pass out between the sheer-booms 6 7 into the assorting-gap 18, formed by the timbers 15. Here the lumbermen assort the logs and direct them into the proper individual gaps 12. Drift material is permitted to pass out of the gap 18 by unfastening the connections which secure the timbers 15 to the floats 10 and swinging them outwardly, as indicated by dotted lines. The logs carried by the current of the river through the individual gaps 12 ultimately pass into the several pockets 14, whence they are rafted or towed to the place of delivery.

Each float 10 is loosely attached to a pile 9 by means of a loop 10ª, which connection permits the floats to rise and fall with the water.

Having thus described my invention, what I claim is—

1. A boom for collecting and holding logs or timber, its lower end terminating in an assorting-gap through which the logs pass, in combination with a series of individual gaps extending in a substantially direct line from the assorting-gap, substantially as set forth.

2. A boom for collecting and holding logs, its lower end terminating in an assorting-gap through which the logs pass, in combination with a series of individual gaps of unequal length extending in a substantially direct line from the assorting-gap, substantially as set forth.

3. A boom for collecting and holding logs, its lower end terminating in an assorting-gap through which the logs pass, in combination with a series of individual gaps extending in a substantially direct line from the assorting-gap, and a pocket at the end of each individual gap, substantially as set forth.

4. A boom for collecting and holding logs, its lower end terminating in an assorting-gap through which the logs pass, in combination with a series of individual gaps of unequal lengths extending in a substantially direct line from the assorting-gap, and a pocket at the end of each individual gap, substantially as set forth.

5. In combination with a log-boom, a collecting and holding boom, an assorting-gap, gates to the assorting-gap, and a series of individual gaps leading from the assorting-gap in line therewith, and with the collecting and holding boom, substantially as set forth.

6. In a log-boom, in combination with a series of piles driven into the bed of a river at substantially a right angle to the direction of its current, a float extending in downstream direction from each pile, cross-timbers connecting the floats, and piles to which the ends of the cross-timbers are attached, substantially as set forth.

In testimony whereof I hereunto set my hand and seal.

GEORGE H. HOWZE. [L. S.]

Witnesses:

F. H. LEWIS,

J. P. DELMAS.