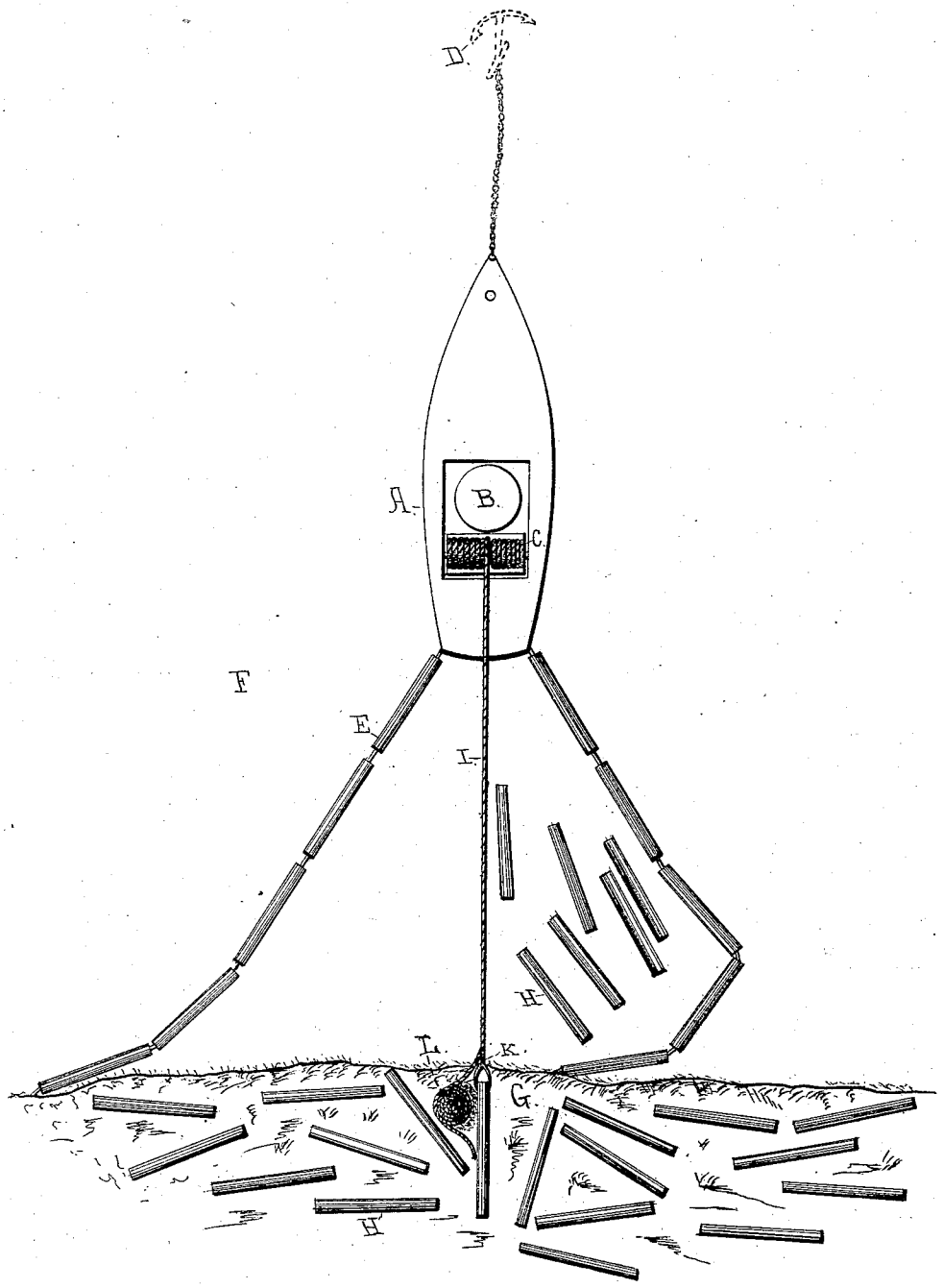
(No Model.)

A. McDOUGALL.

APPARATUS FOR COLLECTING SCATTERED LOGS.

No. 312,486. Patented Feb. 17, 1885.



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UNITED STATES PATENT OFFICE.

ALEXANDER McDOUGALL, OF DULUTH, MINNESOTA.

APPARATUS FOR COLLECTING SCATTERED LOGS.

SPECIFICATION forming part of Letters Patent No. 312,486, dated February 17, 1885.

Application filed January 5, 1883. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER McDOUGALL, of Duluth, in the county of St. Louis and State of Minnesota, have invented a new and useful Improvement in Methods of and Apparatus for Collecting Scattered Logs; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

Saw-logs are usually moved from one point to another on lakes in rafts inclosed by other logs connected together at their ends, and called a "boom." In moving such booms they are frequently broken, commonly by violent winds and high waves, and then the logs are driven to and upon the leeward shore and rolled up and lodged upon the same by the waves and scattered over a considerable extent, the logs of each raft being usually landed in proximity to each other. The collecting of such scattered logs is usually accomplished by crews of men in calm weather or with a light breeze off shore, who with hand implements of different kinds, or with teams, get the logs off the shore and secure them in small rafts and move these rafts along the shores until a sufficient number of the logs are collected, when the logs are made into suitable rafts and inclosed in a boom made from a portion of the logs. If the wind is toward the shore, the logs are apt to be driven back and ashore again, and if the wind is off shore the logs are apt to escape altogether, and in any event it is expensive and difficult to collect and secure all the logs in this way.

My invention is intended to obviate these difficulties; and it consists in the apparatus employed, capable of use whatever the direction of the wind, unless it is violent, as will be more fully explained, and illustrated in the accompanying drawing, which represents the apparatus employed.

A represents a boat with a powerful steam-engine, B, which drives a winch or windlass, C, and also may be connected with a propeller-shaft to move the boat. This boat has also a very heavy anchor, D. To the stern of the boat is fastened a boom, E.

F represents the lake, G the shore-line, and H the saw-logs, and I a suitable rope for connection to the logs by suitable hooks, K, supplied with a disengaging or tripping line arranged in usual form. This boat A is preferably made quite shallow, so as to allow more convenient approach toward the shore, and in such case should have a center-board to afford more steadiness in position with side winds, and a vessel of this character of about seventy-five tons burden would be found very suitable; or the winch or windlass C, of the kind used on dock-hoisters or pile-drivers, could be placed upon the deck of a tug or scow which had sufficient steam-power, or was towed, and was furnished with a very heavy anchor or anchors, sufficient to hold the vessel in position while the winch was drawing a log off the land. The boat A being propelled by her steam-power, with the boom towing astern, is brought to an anchor opposite the shore where the saw-logs are scattered at such a distance that when the boom is separated at a point toward the shore the divided ends may be extended up and down the shore a considerable space, as shown in the drawing, and such ends secured to the shore by any ordinary appropriate means. The rope I is then taken to the shore and attached to a log, and, the engine being started, the log is pulled off into the water, the hooks are disengaged by the tripping-line L, and the log, impelled by the usual shore-current, floats into a bend in the boom, as shown in the drawing. This use of the rope and the winch is continued until all the logs between the extremities of the boom are drawn into it. These logs then lying within the boom are readily collected together and formed and secured into a suitable raft, which may be attached to the boat. The engine and winch then are applied to raise the anchor, which being effected, the steam-power is applied for propulsion, and the boat is moved along, towing the boom and the raft just collected to the point where another raft has been broken up and piled upon the shore, when the method just described is pursued of forming a new raft, and this method is pursued until all the logs are picked up and secured in rafts and inclosed in a boom.

By reason of the shore-current, which almost

always flows along the shores of lakes, the logs drawn off the shore settle into one side of the boom and are detained against the force of a considerable wind blowing toward the shore or along the shore. If the wind blows off the shore, then the vessel itself, as well as the boom, prevents the escape of logs.

It is evident that this system and apparatus are equally applicable to shores of rivers and seas. It also evident that where the distance to which the collected logs are to be moved is small or the weather very fine and calm the making up of the collected logs into rafts may be dispensed with.

Having thus described my invention, what I claim as new is—

In an apparatus for collecting scattered logs, the combination, with a boat provided with a flexible inclosing boom, of a windlass secured to said boat, and connected therewith one end of a line, the other end thereof extending to the logs on the shore, whereby said logs are drawn into the water and within the inclosing boom, substantially as described.

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

ALEXANDER McDOUGALL.

Witnesses:
CHAS. R. HAINES,
FRED. F. HUNTRESS.