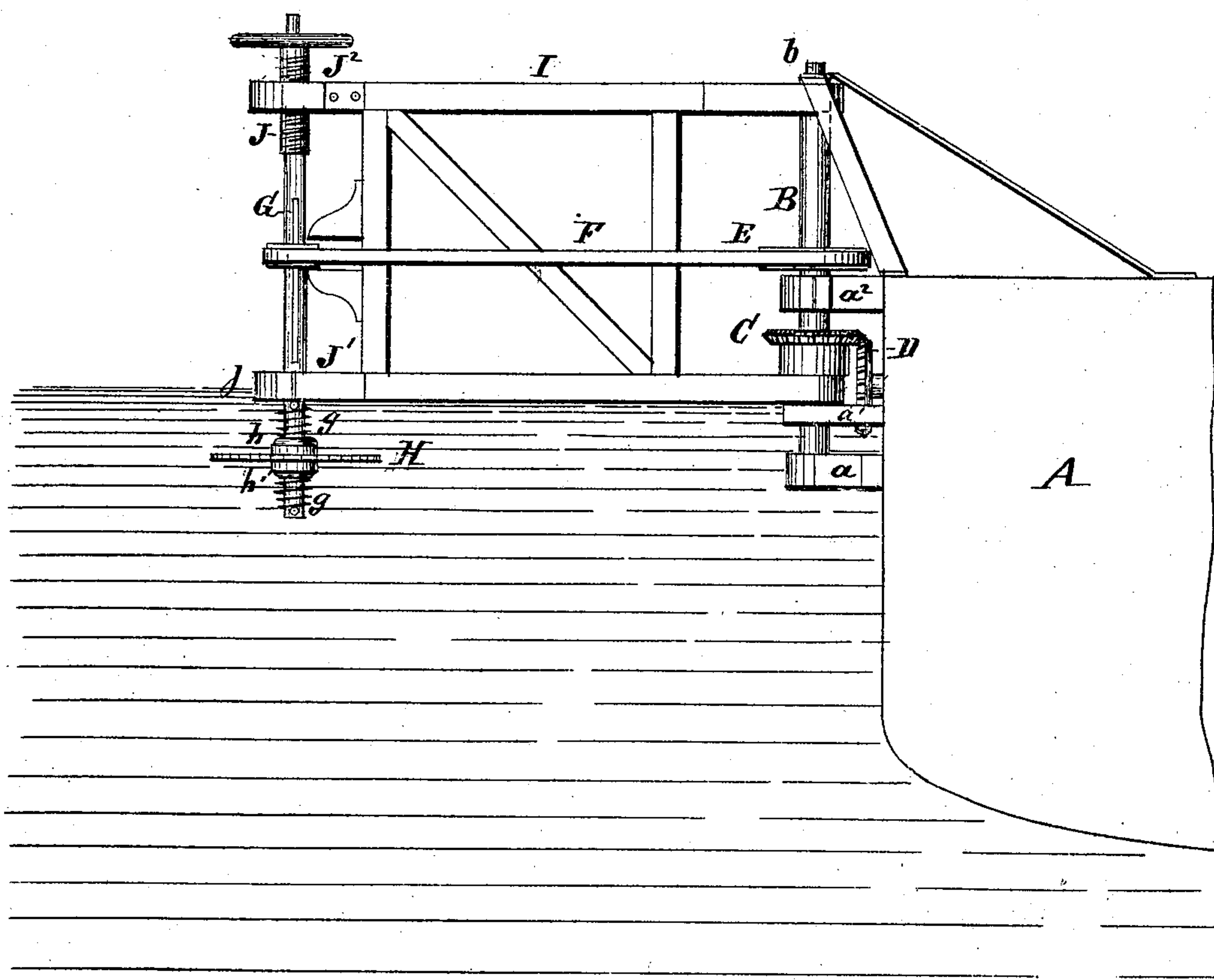


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Improvement in Pile-Sawing Attachments for Boats.

No. 132,337.

Patented Oct. 15, 1872.



Witnesses:

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~~PEN~~

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UNITED STATES PATENT OFFICE.

HENRY VOGLER, OF BALTIMORE, MARYLAND.

IMPROVEMENT IN PILE-SAWING ATTACHMENTS FOR BOATS.

Specification forming part of Letters Patent No. 132,337, dated October 15, 1872.

To all whom it may concern:

Be it known that I, HENRY VOGLER, of Baltimore, in the county of Baltimore and State of Maryland, have invented a Pile-Sawing Machine, of which the following is a specification:

The invention consists in providing a pile-saw shaft with one removable bearing and a detachable cap on the other, so that it can be speedily reversed to cut off pile either at top or bottom. It also consists in a new mode of giving adjustment to the saw-shaft by means of a bearing threaded on the outside and working in a suitable female screw. It further consists in placing the saw between two springs, that enable it to play on the shaft with the motions of the boat.

The drawing is a side elevation, showing my invention.

A represents a section of a boat, to whose side is attached the bearings a a^1 a^2 . In these bearings is placed a revolving shaft, B, having wheel C, that is rotated by a drive-wheel, D, on a shaft actuated within the boat. This vertical shaft B is also journaled at its upper end in a bearing, b , and is provided with a pulley, E, whose belt F drives saw-shaft G. Near the end of rotary shaft G, and between two oppositely-pressing springs, g g , are placed the saw-clamps h h and saw H. This allows play to the saw up and down on shaft G to correspond to the motions of the boat. The saw-shaft G is arranged in the vertical frame I, that swings loosely on the shaft B, and thus is fed up to the pile without moving the boat. J is a tubular screw that forms the upper bearing of shaft G and allows it to

be adjusted to greater or less depth in the water. The upper bearing J is removable, and the lower bearing J^1 has a readily detachable cap, j , by the removal of which the shaft can be speedily reversed and the saw caused to cut off the upper part of pile. In this case the bearing J is reversed and placed within J^1 , while J^2 receives the saw-end of shaft G.

The operation is as follows: The boat having been brought into suitable position and anchored, the saw is held and fed to the pile at the desired depth by spring-pressure against frame I, or in any suitable manner, while the shaft G is rotated by belt F on a shaft, B, revolved by power within the boat.

I am aware that saws for cutting off piles have been used before on boats; but so far as I am aware I have never known a pile-saw that was reversible, vertically adjustable, or placed between springs.

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

1. The saw-shaft G, provided with a detachable bearing, J, and a bearing, J^1 , with removable cap j , as and for the purpose described.

2. A saw-shaft, G, provided with one tubular bearing, J, threaded on the outside to allow of the adjustment of said shaft, as set forth.

3. The saw H, placed on shaft between spring-pressed clamps h h , as and for the purpose described.

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Witnesses:

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