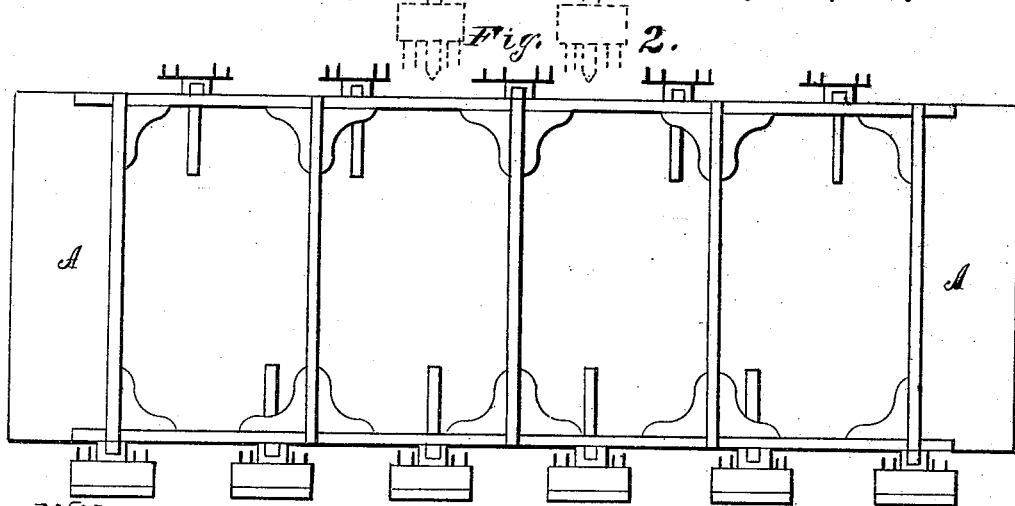
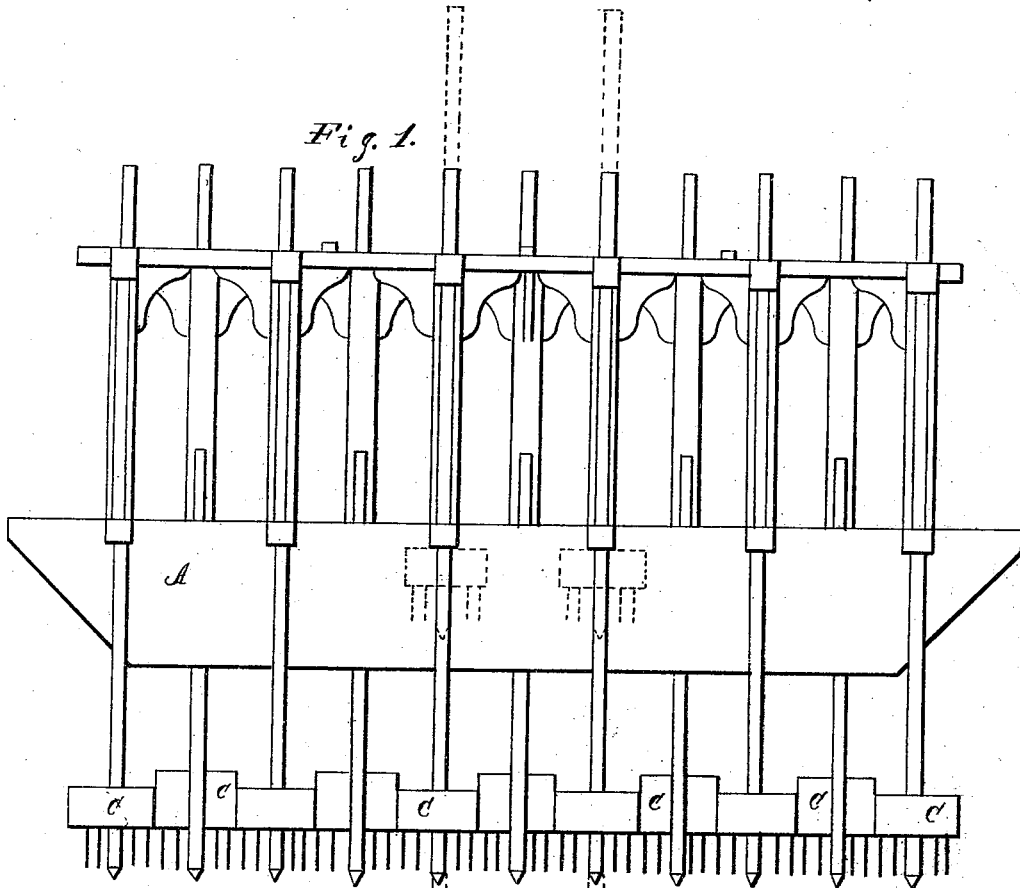


J. GRANT.
DREDGING APPARATUS.

No. 180,023.

Patented July 18, 1876.



Witnesses:

H. Aubrey Foulmire
Henry V. Miller.

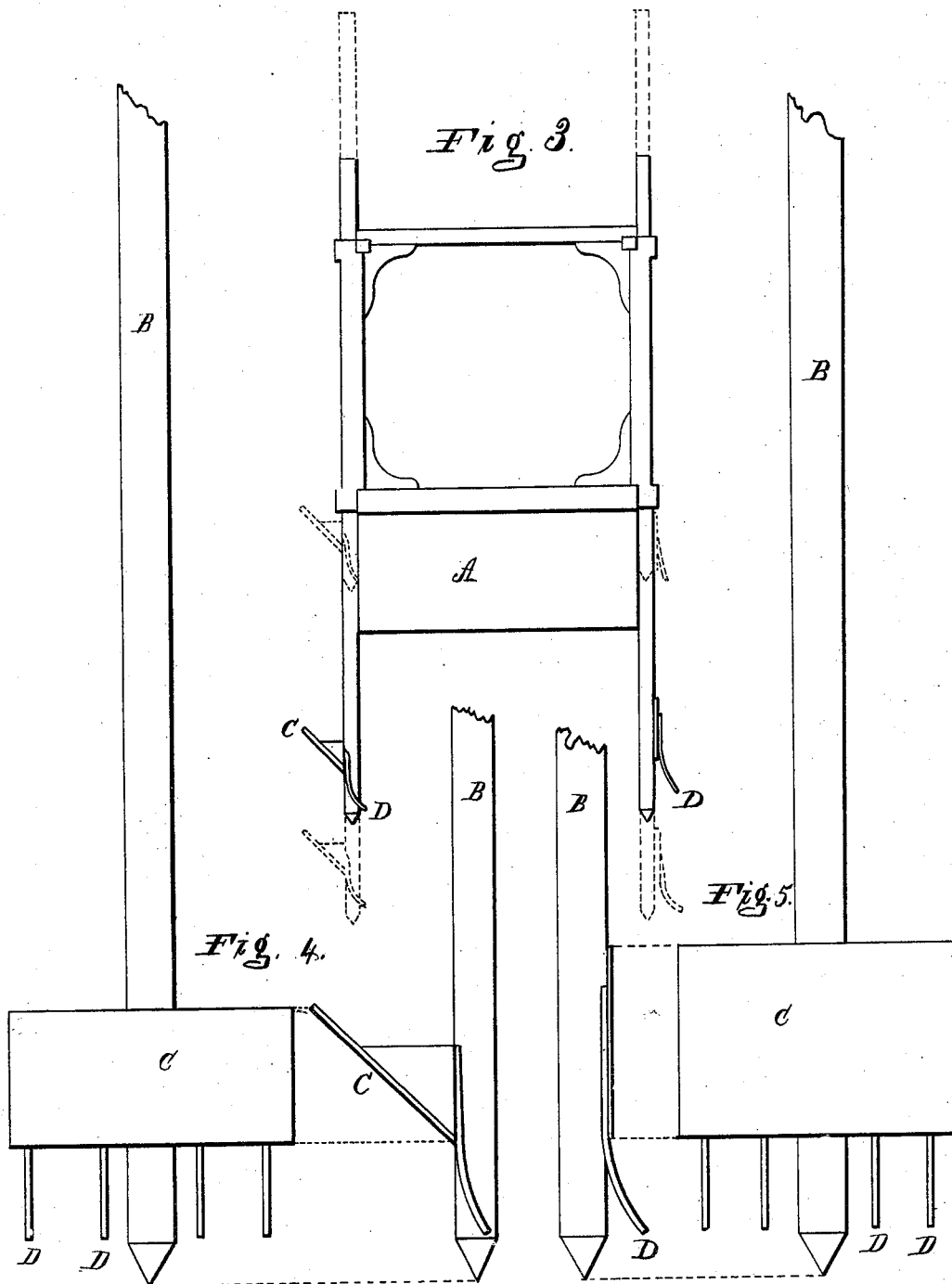
Inventor:

John Grant
per Morton Foulmire Atty

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WITNESSES
H. Aubrey Fontaine
Henry F. Miller ^{BY}

INVENTOR
John Grant
Morton Tolman Attorney

UNITED STATES PATENT OFFICE

JOHN GRANT, OF MOBILE, ALABAMA:

IMPROVEMENT IN DREDGING APPARATUS.

Specification forming part of Letters Patent No. **150,023**, dated July 18, 1876; application filed June 28, 1876.

To all whom it may concern:

Be it known that I, JOHN GRANT, of the city and county of Mobile, and State of Alabama, have invented a new and useful Improvement in Dredging-Machines, which improvement is fully set forth in the following specification, reference being had to the accompanying drawings.

The object of my invention is to facilitate the removal of bars or shoals in running streams by the process of washing or scouring the bottom by the force of the natural current, by using a floating hull or vessel, A, supporting and carrying a system or series of vertically-adjustable piles, B B, pointed at their lower ends, to which are attached inclined and vertical deflecting-plates C C, and curved raking-teeth D D, as illustrated in the accompanying drawings—

Figure 1 being an elevation of the up-stream side; Fig. 2, a plan view; Fig. 3, an end elevation; and Figs. 4 and 5, elevations showing lower ends of piles, B B, with inclined and vertical deflecting-plates C C, and curved raking-teeth D D attached.

It is not deemed necessary to show the mechanism by which the piles B B are vertically adjusted, as that constitutes no part of my invention, and may be accomplished by hand or other power with well-known devices.

When the vessel A is placed over the bar or shoal, with the points of the piles B B and raking-teeth D D in contact with the bar or

shoal, the current will be deflected by the inclined plates C C under and between the piles B B and raking-teeth D D, so washing and scouring the bar or shoal as to permit the vessel to move down the stream by the force of the current, thereby clearing out a channel to a depth corresponding to the vertical adjustment of the piles B B, the operation being repeated until the required depth is attained.

The course of the vessel is directed by depressing one or more piles on the more advanced end of the vessel, to retard its progress until the required direction is obtained.

A steam tug-boat will be in attendance to assist when necessary.

I claim as my invention—

1. The dredging apparatus described, consisting of the hull A, and vertically-adjustable piles B B, carrying deflecting-plates C C, and teeth D D, for the purpose of dredging by the natural force of the current, substantially as specified.

2. The inclined and vertical deflecting-plates combined, substantially as and for the purpose described.

3. The curved raking-teeth, in combination with the deflecting-plates, and vertically-adjustable piles, for the purpose set forth.

JOHN GRANT.

Witnesses:

J. T. MAYBURY,
C. C. KAUFFMAN.