

(No Model.)

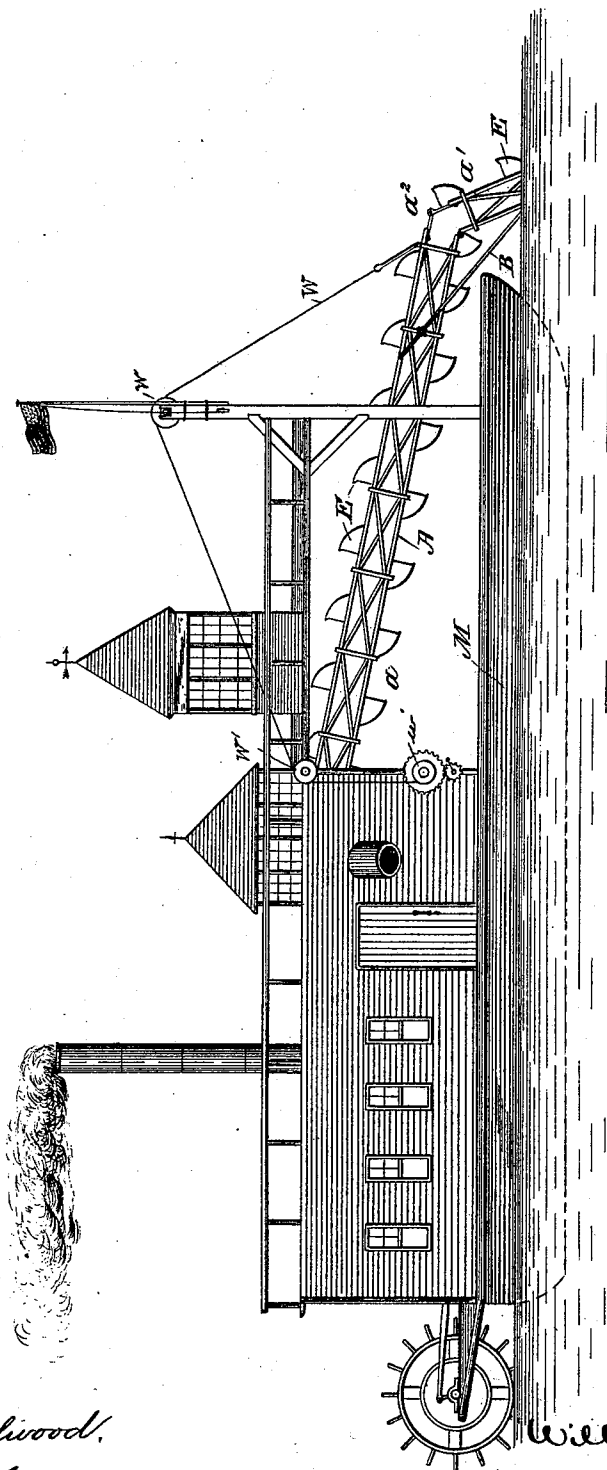
2 Sheets—Sheet 1.

W. T. URIE.
DREDGER.

No. 510,736.

Patented Dec. 12, 1893.

FIG. 1.

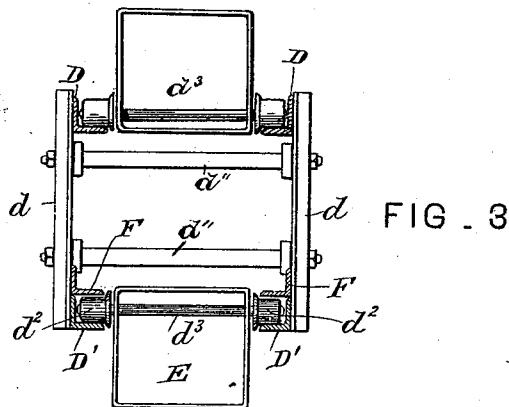
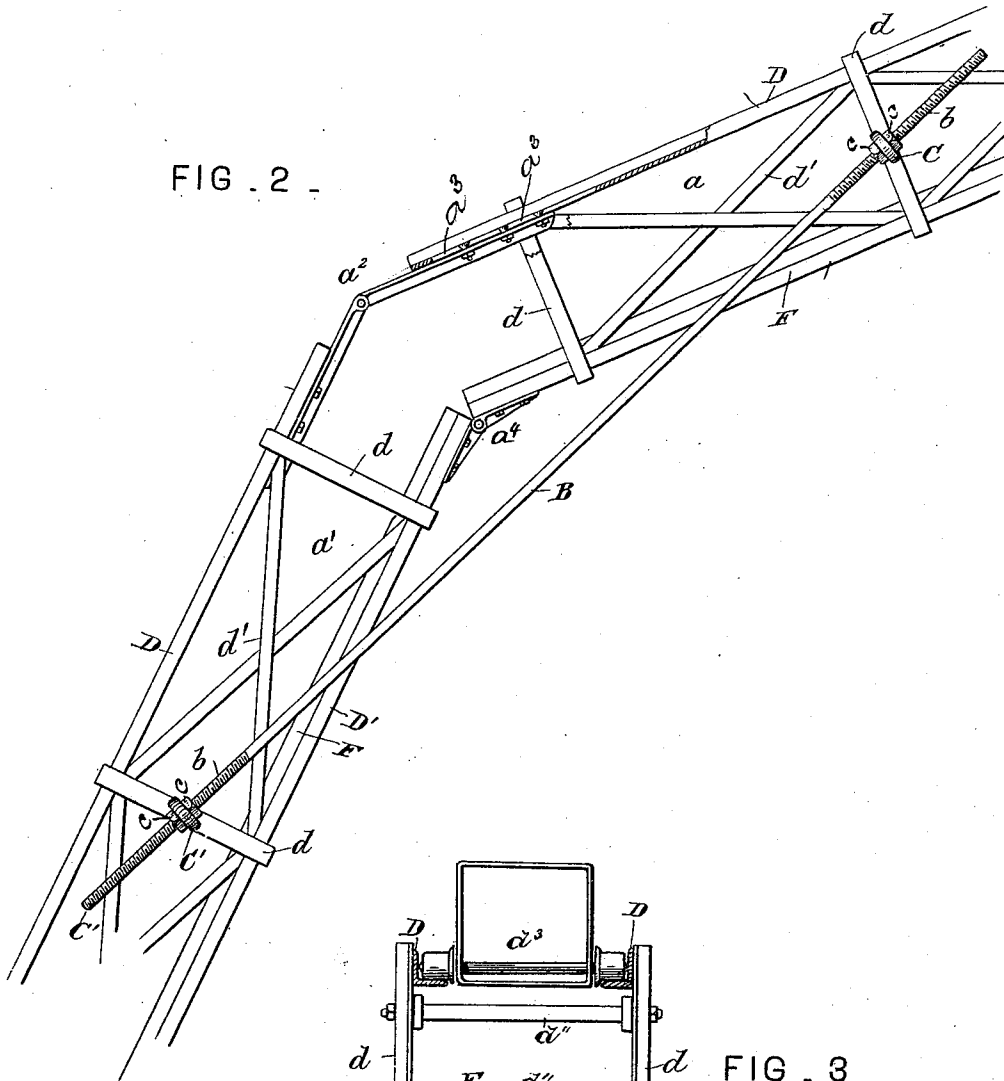


Attest:
Geo. T. Smallwood,
B. G. Mahoney.

Inventor:
William T. Urie
By Raimond & Sons, Attys.

No. 510,736.

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Attest:
Geo. T. Smallwood,
B. Q. Wyahomes.

Inventor
William J. Urie
By Paine & Lows.,
attys.

UNITED STATES PATENT OFFICE.

WILLIAM T. URIE, OF KANSAS CITY, MISSOURI, ASSIGNOR TO THE URIE
DREDGE MANUFACTURING COMPANY, OF SAME PLACE.

DREDGER.

SPECIFICATION forming part of Letters Patent No. 510,736, dated December 12, 1893.

Application filed October 28, 1890. Serial No. 369,606. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM T. URIE, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Dredgers; 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 pertains to certain new and useful improvements in dredging machines, and has for its object the production of simple and highly efficient means for working with equal advantage in both deep and shallow water, the buckets being made to approach the soil as nearly perpendicular as possible.

The invention consists of the detail construction, combination and arrangement of parts, substantially as hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings: Figure 1 is a view in side elevation of portions of a dredging machine constructed after my invention. Fig. 2 is an enlarged reversed view of the points of connection of the sections of the frame. Fig. 3 is an enlarged cross-section of the frame showing the tracks and the buckets thereon.

A designates the frame or ladder of a dredging machine M. This frame or ladder is composed of two parts or sections a , a' , the former being adjustably attached to the machine, and the latter being movable or adjustable with relation to the former. The part or section a can be raised or lowered at its outer end by a rope or chain W passed over pulleys w , and connected to windlass w' . The section a' is connected by hinges a^2 , a^4 to the outer end of the section a . Each leg of each hinge a^2 is preferably secured, for adjustment, to its proper rail D by a slot and bolt device such as is clearly shown in Fig. 2 at the lower end of the upper section D so as to permit the

outer portion a' of the frame to readily conform to the desired inclination. The hinges a^2 are so formed as to serve as continuations of the upper rails D at the point of separation of said rails.

B is a truss-rod, which is provided with threads b , b at each end. These threaded ends are passed through boxes or bearings C, C' connected, respectively, to the sections a and a' of the frame A. By turning this rod, by the application of a wrench, for instance, to the nuts c arranged thereon at opposite sides of the bearings C C' the outer section a' of the frame A can be moved on its hinges a^2 , a^4 and made to assume any desired angle or inclination. In this manner the buckets will be made to approach the soil on a line as nearly perpendicular as desirable, in various depths of water.

The frame or ladder is made of upper and lower opposite angle-irons D, D', connected by transverse bars d strengthened by brace rods d' and united by cross rods d'' . These angle irons D D' serve as tracks for the wheels or rollers d^2 , d^2 secured on the ends of the axles d^3 of the buckets E; an endless chain of which is passed over the frame. To the lower or under portion of the frame are secured additional angle irons or guard rails F, F, the inwardly projecting portions of which are parallel with the lower irons or tracks D'. The wheels or rollers d^2 pass between these angle irons or tracks D' and guard rails F and are in this manner securely held in position, and the buckets are thereby prevented from deviating from their course, which is made positive.

I claim as my invention—

1. In a dredging machine having an endless chain of buckets, a frame or ladder formed in two parts or sections, one of which is attached to the machine and the other adjustable with relation thereto, and the adjusting rod connected at its ends to said parts or sections, substantially as set forth.

2. In a dredging machine having an endless chain of buckets, the combination with a frame or ladder composed of two articulated parts or sections, the truss-rod having thread-

ed ends and the boxes or bearings secured to said frame and with which said truss-rod engages, substantially as set forth.

3. In a dredging machine having an end-
5 less chain of buckets, the frame herein-described formed in two parts or sections, and provided with rails the upper and lower hinges, said upper hinges being movably secured to the upper rails of one part or section

of said frame, and the adjusting truss-rod connected to said parts or sections, substantially as set forth.

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

WILLIAM T. URIE.

Witnesses:

A. W. CALKINS,
W. B. DONATHEN.