

No. 839,934.

PATENTED JAN. 1, 1907.

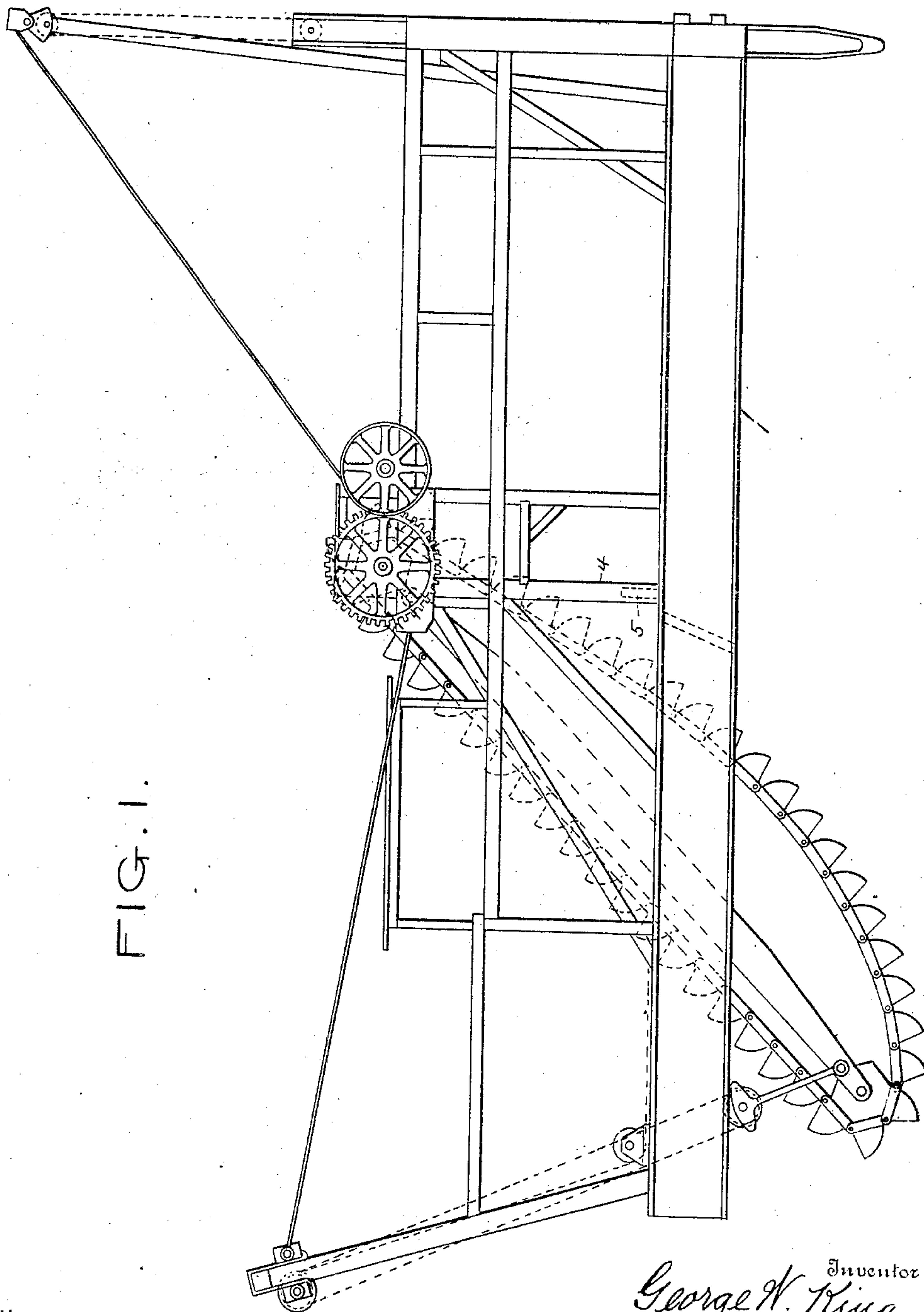
G. W. KING.

DREDGE.

APPLICATION FILED JUNE 2, 1906.

3 SHEETS—SHEET 1.

FIG. 1.



Witnesses  
William F. Bauer.  
A. L. Hammaker.

Inventor  
George W. King.

By *H. A. Pauline*,  
Attorney

No. 839,934.

PATENTED JAN. 1, 1907.

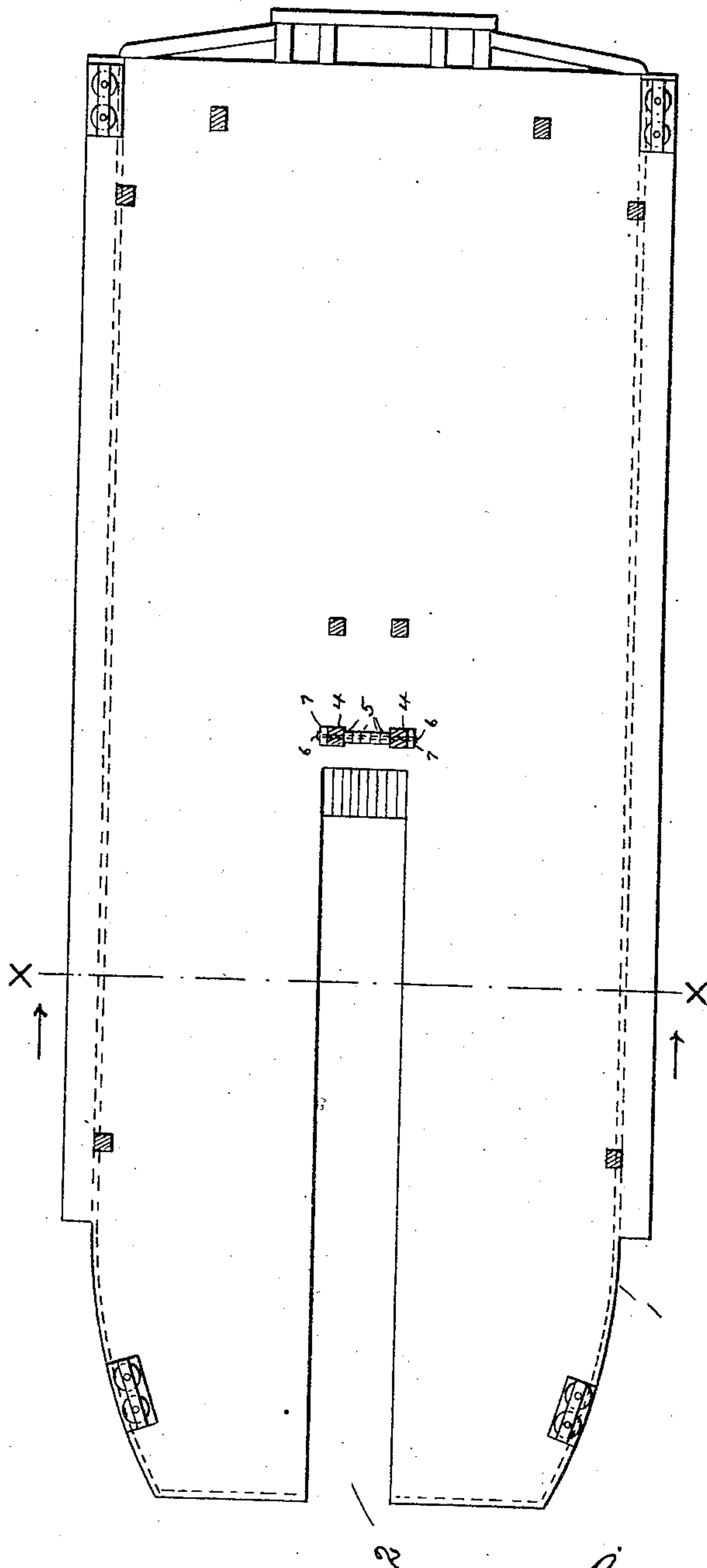
G. W. KING.

DREDGE.

APPLICATION FILED JUNE 2, 1906.

3 SHEETS—SHEET 2.

FIG. 2.



Witnesses  
William F. Bauer.  
H. L. Hammaker.

Inventor  
George W. King  
By H. A. Tauler  
Attorney

No. 839,934.

PATENTED JAN. 1, 1907.

G. W. KING.

DREDGE.

APPLICATION FILED JUNE 2, 1906.

3 SHEETS—SHEET 3.

FIG. 3.

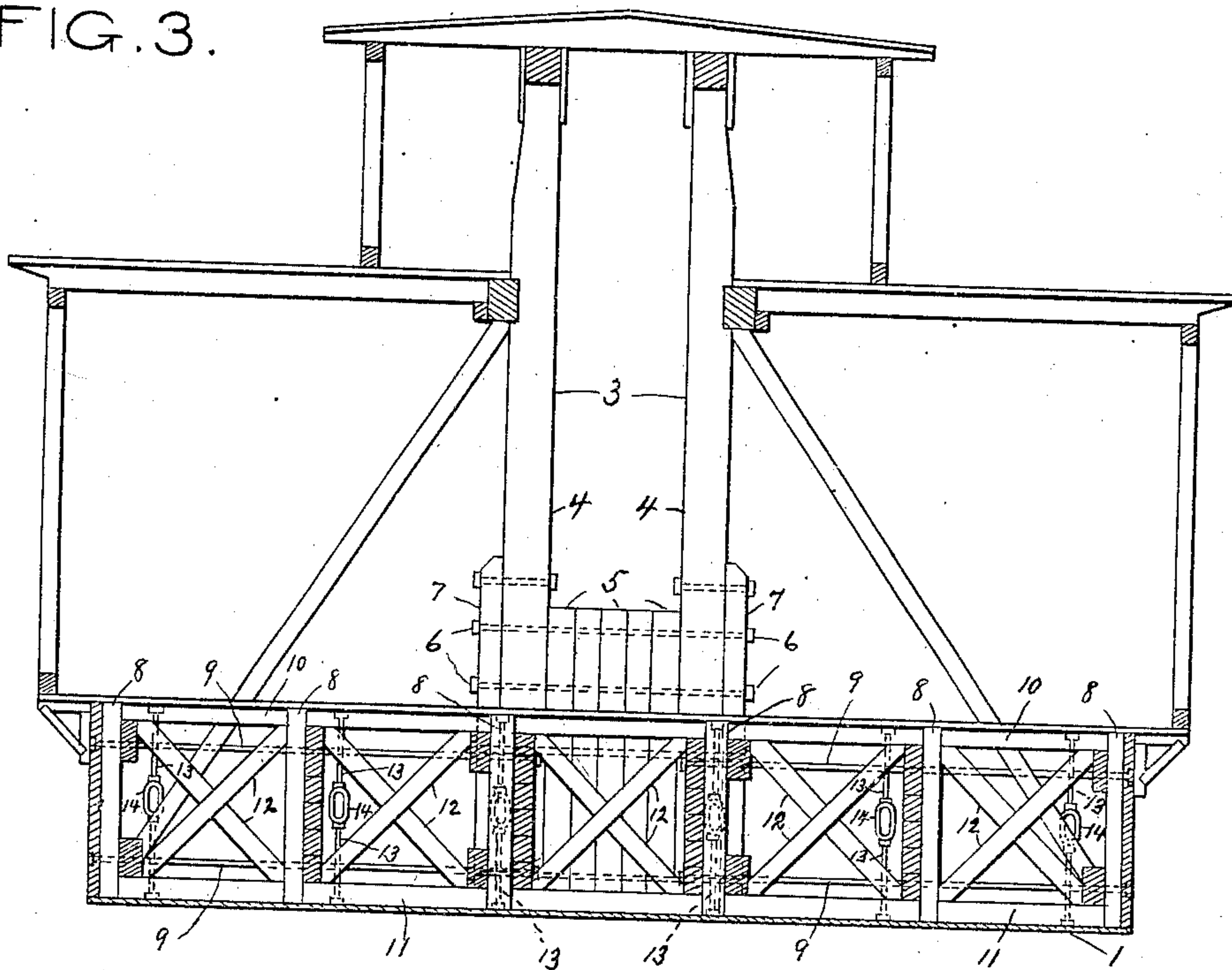
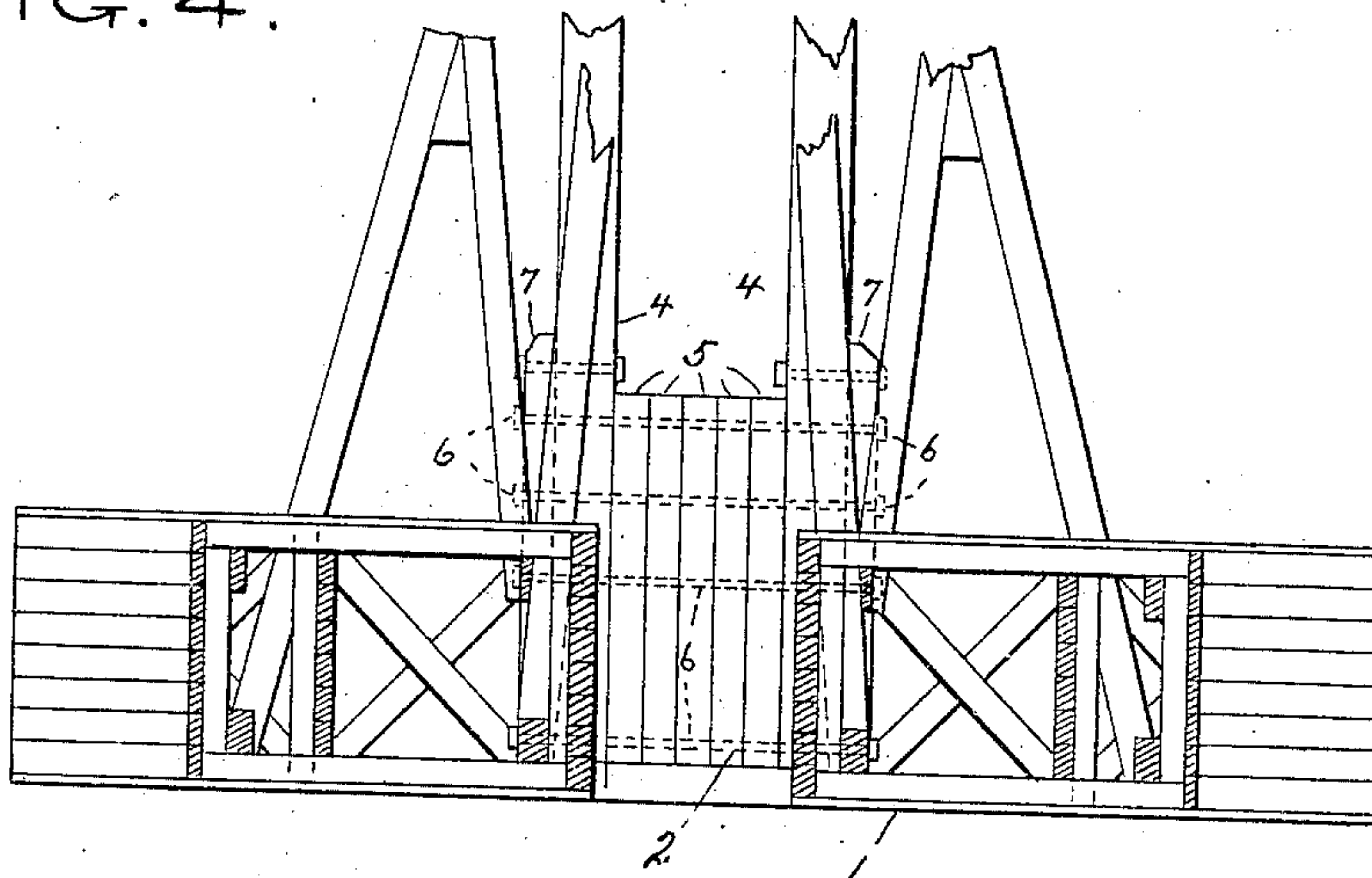


FIG. 4.



Witnesses  
William F. Bauer.  
H. L. Hammaker.

Inventor  
George W. King.

By *H. A. Gaudin*,  
Attorney



# UNITED STATES PATENT OFFICE.

GEORGE W. KING, OF MARION, OHIO, ASSIGNOR TO THE MARION STEAM SHOVEL COMPANY, OF MARION, OHIO, A CORPORATION OF OHIO.

## DREDGE.

No. 839,934.

Specification of Letters Patent.

Patented Jan. 1, 1907.

Application filed June 2, 1906. Serial No. 319,951.

*To all whom it may concern:*

Be it known that I, GEORGE W. KING, a citizen of the United States, residing at Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Dredges, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to dredges, and more particularly to the construction of the body or hull thereof, and has for its object to provide an improved construction of the body of the dredge at the inner end of the crotch or well-hole, whereby the hull and main gauntree-frame are greatly strengthened; also, an improved construction of the interior of the hull to further strengthen its general structure.

To the foregoing ends the invention consists in certain novel features which I will now proceed to describe and will then particularly point out in the claims.

In the accompanying drawings, Figure 1 is a side elevation of a structure embodying my invention in one form. Fig. 2 is a plan view of the same, partly in section. Fig. 3 is a detail sectional view taken on the line *xx* of Fig. 2 and looking in the direction of the arrows, and Fig. 4 is a front elevation with the front sheathing removed.

The dredge illustrated, which is a well-known form of dredge, comprises a hull 1, which is provided with a crotch or well-opening 2, extending from the central portion of the hull to and through the front end thereof. At the rear end of this well-opening there is located the main gauntree-frame 3, which supports the ladder of the endless chain of excavating-buckets, and the mechanism whereby it is driven. In order to strengthen the hulls at the rear end of the well-hole and give it greater stability, the spaces between the upright members 4 of the gantry-frame at said rear end are filled in solidly with heavy upright timbers 5, which are secured in position by long bolts 6, passing through the timbers 5 and uprights 4 and also through heavy upright timbers 7, located on the outside of the members 4. These timbers extend upward

a considerable distance above the body of the hull and serve not only to give the said body great strength and rigidity, but also to materially strengthen the main gauntree-frame. In order to give additional strength to the body of the hull at this point, the upright members 8 thereof are connected at the top and bottom by horizontal bolts 9, extending from the central portion of the hull to each side thereof. The transverse upper and lower beams 10 and 11 are braced apart by diagonal braces 12, arranged in pairs, so as to cross each other at about right angles and secured to each other at their crossing-point. Bolts 13 connect the upper and lower beams vertically, each bolt being made in two parts, with their adjacent ends reversely threaded and united by a turnbuckle 14. By means of these turnbuckles the structure may be tightened up, so as to give it the desired tension to properly cooperate with the cross-bracing and the vertical struts or compression members 8. These structural features give the hull great strength and rigidity, particularly with the filling of upright timbers between the main gauntree-frame uprights at the inner end of the well-hole.

I wish it to be understood that I do not desire to be limited to the exact details of construction shown and described, for obvious modifications will occur to a person skilled in the art.

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

1. In a dredge of the character described, a hull provided with a crotch or well-hole, in combination with a gauntree-frame comprising upright members located at the inner end of said well-hole, upright timbers filling the transverse space between said upright members and extending above the hull-deck, and transverse bolts passing through said upright members and timbers, substantially as described.

2. In a dredge of the character described, a hull comprising transverse top and bottom members and vertical struts connecting the same, diagonal cross-braces connected to

said top and bottom members and to each other between the struts, transverse tension-bolts connecting the vertical hull members, and vertical tension-bolts connecting the top  
5 and bottom members, said hull being provided with a crotch or well-hole and having a gauntree-frame at the inner end of said well-hole, the space between the upright members

of which is filled by upright timbers through-bolted thereto, substantially as described. 10

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

GEORGE W. KING.

Witnesses:

ROBERT G. LUCAS,  
CARL T. BAUMAN.