

(No Model.)

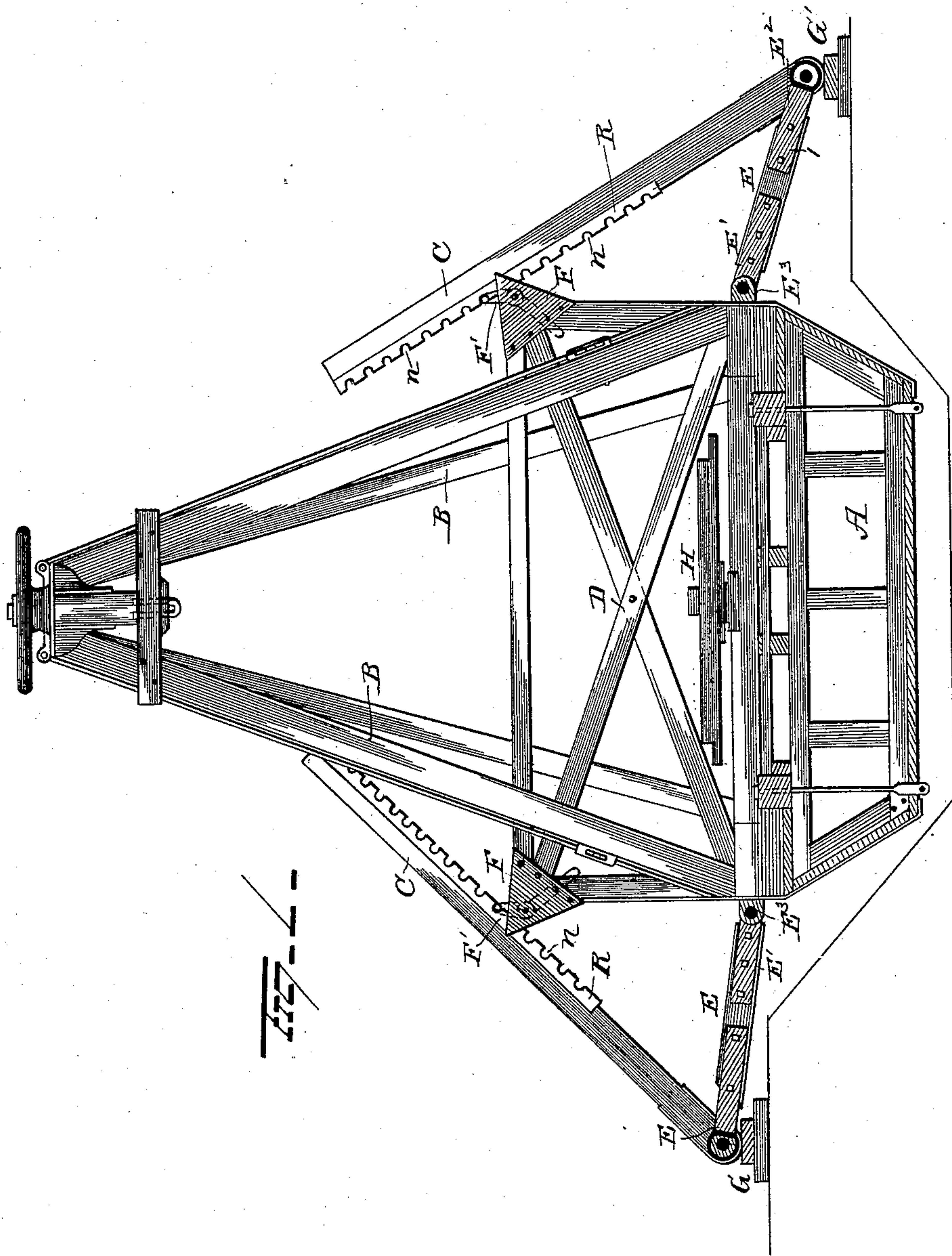
2 Sheets—Sheet 1.

E. HUBER, H. M. BARNHART & G. W. KING.

BRACE FOR DREDGING MACHINES.

No. 364,761.

Patented June 14, 1887.



Witnesses
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G. F. Downing

Inventors
Edward Huber
Henry M. Barnhart
George W. King
By their Attorneys
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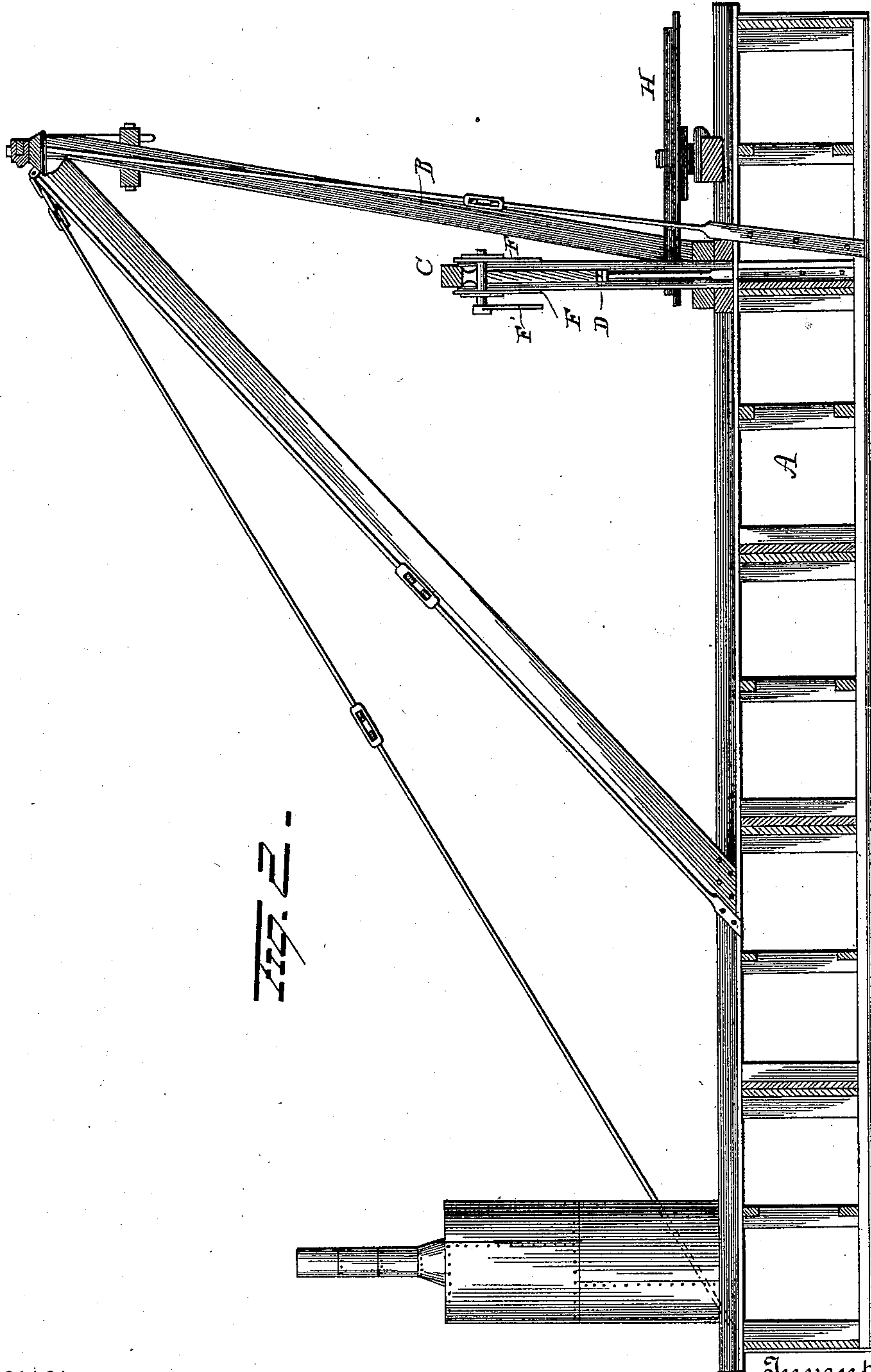
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UNITED STATES PATENT OFFICE.

EDWARD HUBER, HENRY M. BARNHART, AND GEORGE W. KING, OF
MARION, OHIO.

BRACE FOR DREDGING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 364,761, dated June 14, 1887.

Application filed February 19, 1887. Serial No. 223,192. (No model.)

To all whom it may concern:

Be it known that we, EDWARD HUBER, HENRY M. BARNHART, and GEORGE W. KING, of Marion, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Adjustable Braces for Dredging-Machines; and we 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.

Our invention relates to an improvement in adjustable braces for dredges, ditching-machines, and other similar apparatus that combine traveling cranes therewith, the object being to furnish a device that will be universal in its application, and that in its operation will prevent the oscillation or side sway of a vessel or floating platform that supports a traveling crane used for dredging channels or other similar purposes.

With these objects in view our invention consists in certain features of construction and combinations of parts, that will be hereinafter described, and pointed out in the claims.

Referring to the drawings making a part of this specification, Figure 1 is an elevation of the device in cross-section. Fig. 2 is a side elevation of the self-adjusting brace.

A represents the hull of a dredger or a floating platform, upon which is mounted the frame B. The converging timbers of the frame B are joined at the upper ends to form a support for the crane H. The base of this crane is secured upon the deck of the hull A. We do not restrict ourselves to any particular style of crane, and therefore do not show it in the drawings.

Upon the deck-timbers of the hull A the frame D is rigidly secured. This is suitably braced to render it perfectly stable in position. At the upper corners of the frame D triangular bracket-plates F are attached by bolts or other approved method. The arms E, that are hinged at E³ to the deck-timbers, are made to extend a proper distance laterally to engage the adjustable platforms G G'. These platforms are placed upon the banks of a ditch or in the bottom of the same, as may be necessary. The outer ends, E², of the arms E' are

hinged to the platforms to permit pivotal movement at both of their ends. If it is desired, the arms E' may be made extensible by changing the points of bolted connection of the flanges E' E², extending from the knuckle-joints which form their pivot ends. The hinged locking-bars C are secured upon the platform G G' by their lower ends, strap-hinge joints being provided to hold these bars in pivotal connection with the outer ends of the arms E. The locking-bars C are made of timber and have the metallic racks R affixed to the inner surfaces of these bars. A series of spaced notches, n, are cut in the body of these racks to engage the toes formed upon the short limbs of the levers F'. The bracket-plates F are attached to each side of the locking-bars C, and their projecting corners form cheek-plates to hold the bars C in position laterally. The frame B is properly stayed by trussing-bolts I, that are inserted at necessary points to render it stable.

In operation, the dredging-machine is anchored at a point where operations are to be conducted. The arms E are extended to engage the stationary platforms G G', that are located upon the banks of the stream that floats the hull of the dredger. These platforms are of sufficient superficial area to afford a secure base from which to brace the vessel and prevent rocking motion ordinarily incidental to dredging-machines when the traveling crane that raises and transports the earthy material is made to swing from one side to the other of the hull. It will be apparent from an inspection of the figures that the arms E will adjust or accommodate their position to the relative positions of the platforms G G', and this will be the case without regard to the conformation of the earthy base upon which the platforms rest. The locking-bars C are self-adjusting in relation to the brackets F, and are rigidly secured in locked adjustment with these plates by the movement of the cam-levers F', which are pivoted to permit an engagement of their toes with the notches n of the racks R when the long ends of the handles of the cam-levers F' are vibrated to effect such a locking contact of these parts. When the locking-bars C are made to engage the levers F', as just de-

scribed, they become rigid truss-braces and prevent lateral vibration of the frame B and any mechanism secured to it. Consequently the oscillations or swaying motion of the hull of the dredger is prevented and the entire apparatus is rendered stable while in use.

Many slight changes might be made in the constructive details of this device without exceeding its scope or violating its spirit. We do not therefore desire to restrict ourselves to exact forms shown; but,

Having fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a dredging-machine or other similar device using a swinging crane, the combination, with the hull, of two lateral hinged arms and two adjustable locking-bars adapted to hold the lateral arms in rigid connection with the hull, substantially as set forth.

2. In a dredging-machine or floating vessel employing a traveling or swinging crane, the combination, with the hull, a frame erected on the hull, and two adjustable platforms, of two hinged arms made to pivotally engage the frame-work and platforms and two locking-bars that are pivoted to the platforms and are adjustably locked to the frame to render the pivot-joints of the lateral arms rigid, substantially as set forth.

In testimony whereof we have signed this specification in the presence of two subscribing witnesses.

EDWARD HUBER.
HENRY M. BARNHART.
GEORGE W. KING.

Witnesses:

J. E. DAVIDS,
THOMAS IREY.