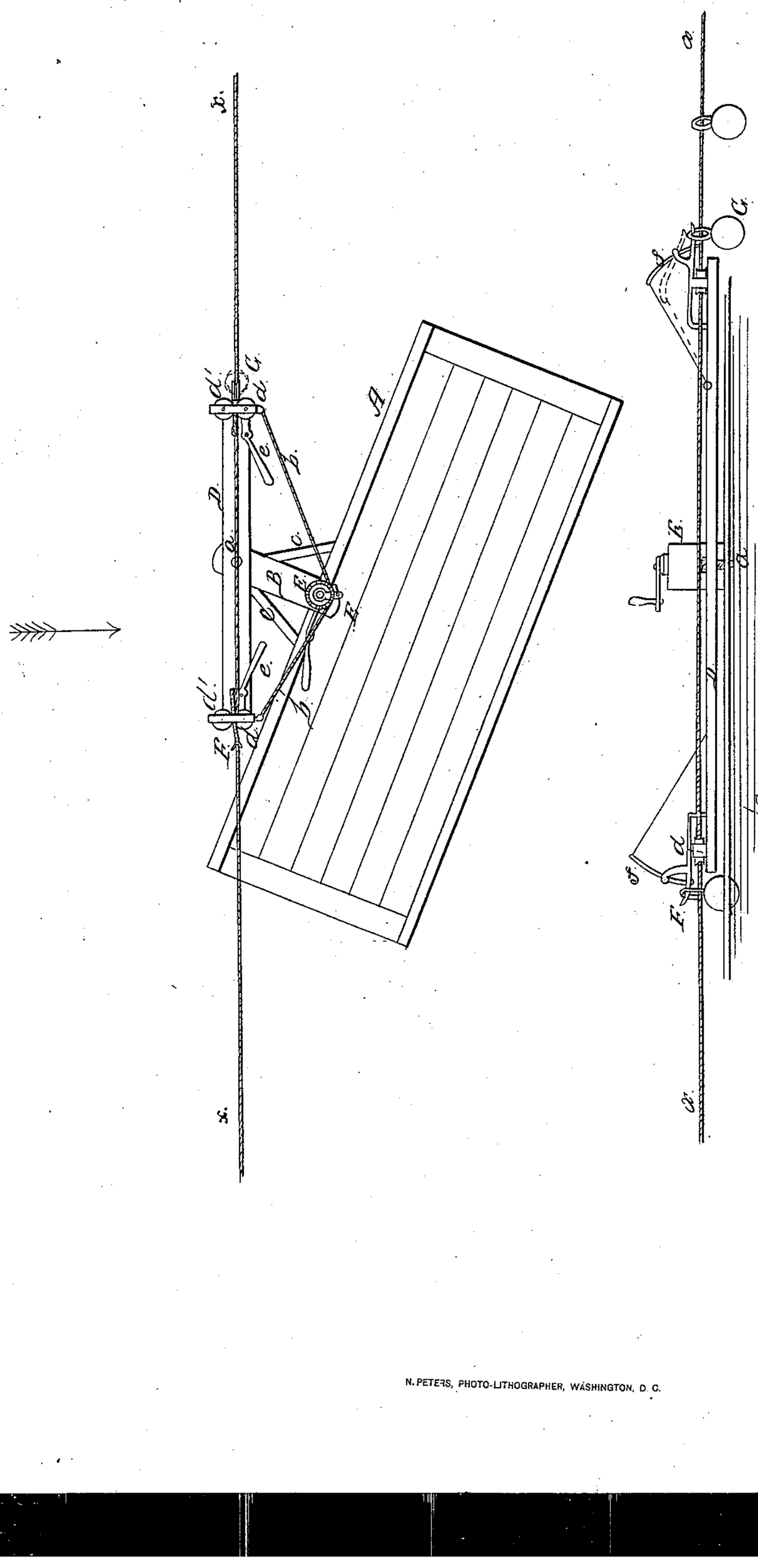
W. A. Jordan.

Elevated Railway.

No. 15,487. Patented Aug. 5, 1856.



UNITED STATES PATENT OFFICE.

WILLIAM A. JORDAN, OF THIBODEAUX, LOUISIANA.

MEANS FOR GUIDING LINE FERRY-BOATS OR FLYING-BRIDGES.

Specification forming part of Letters Patent No. 15,487, dated August 5, 1856; Reissued June 16, 1857, No. 472.

To all whom it may concern:

Be it known that I, WILLIAM A. JORDAN, of Thibodeaux, in the parish of Lafourche (interior) and State of Louisiana, have invented certain new and useful Improvements in Crossing Rivers by Flying-Bridges or Ferries; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification.

The nature of my improvement consists in the employment of a vibratory lever attached to the side or gunwale of a boat, in connection with a cable or rope stretched from bank to bank of a stream, so that the force of the stream may be used for propulsion of the boat and its steering effected by the aforesaid lever without the employment of a rudder or other device.

It further consists of certain mechanical devices and the employment of weights or sinkers by which the cable may be sunk after being slackened, and thus disposed of, so that no interruption of the navigation shall ensue.

The following description will enable others to construct and use my improvement. A suitable cable or rope having been stretched by windlasses or otherwise across a stream at a height say of four feet above the level of the water, a boat constructed as follows is attached thereto: A is the gunwale or side of the boat; B, an extended horizontal beam projection from the gunwale; *c*, *c*, braces giving it support; D, a vibratory lever moving horizontally on a bolt *a*, securing it to B.

E is a windlass secured in a vertical position on the gunwale; *b b*, a rope or chain is passed with two or three turns around the windlass and attached to the end of D.

d' d', are rollers or pulleys secured in suitable boxes at the ends of the beam D, and *d d*, are two other rollers in short forked levers (*e*, *e*,) placed side by side of *d'*, *d'*, the object of the movable rollers is to clutch the rope when required to check the movement of the boat.

F is a forked rest on which the sinkers or weights G are placed and from which they may be displaced by the small lever *f*, when moved by the cord attached to the upper end of said lever.

The proportion of the vibrating lever D is slightly less than half the length of the boat.

In the employment of the means I have described, the cable or rope *x x*, is passed between the rollers *d d*, *d' d'* placed on the ends of the vibratory beam D. Having been properly tightened by the employment of windlasses it forms a tight line from shore to shore. To cross the stream, the boat is pushed from the bank and at the same time the vibratory, lever D is brought by the windlass to the requisite angle with the side of the boat and her forward end pointed up stream. The force of the current operating against the side of the boat under the water line will cause its propulsion. By means of a dog or ratchet and pawl the windlass is prevented from turning and the beam or lever D serves the purpose of a rudder. As the boat nears the shore of the opposite side, the gunwale is gradually brought parallel with the lever D and cable *x x*, and the end of the boat brought up square to the landing without the least shock. Should it be necessary to lessen its velocity, it may be clutched on the cable by rollers *d d d' d'* or if required to back, by simply throwing the beam D with its end nearer the aft of the boat. In rapid streams where quantities of drift wood is running these precautions may be necessary. When it is required that the cable should be disposed of, so that an unobstructed navigation of the stream may result in the passage of the boat, the sinkers on the aft portion of the lever D may be thrown from their rest or fork by the displacing lever *f*, simply by drawing the cord attached to the said lever. As the forward end of the cable in the boat passes across the corner of it, it affords the means of drawing upon the cable by hand in the event of the force of the stream not being sufficient, or of an eddy occurring at the landing.

I am aware that Jas. Parks proposed the employment of a grooved wheel or pulley block, with a rope attaching it to a boat, guided by an ordinary steering oar when said wheel was used as a traveler on a tight cable stretched overhead from bank to bank, as a means of crossing streams by the force of current, I therefore do not claim this as my invention.

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

The vibratory lever D constructed substantially as described and arranged and operated with a cable in the manner and for the purposes set forth in the foregoing specification.

In testimony whereof I have signed my name before two subscribing witnesses.

WILLIAM A. JORDAN.

Witnesses:
JOHN F. CLARK,
JOHN S. HOLLINGSHEAD.

[FIRST PRINTED 1912.]