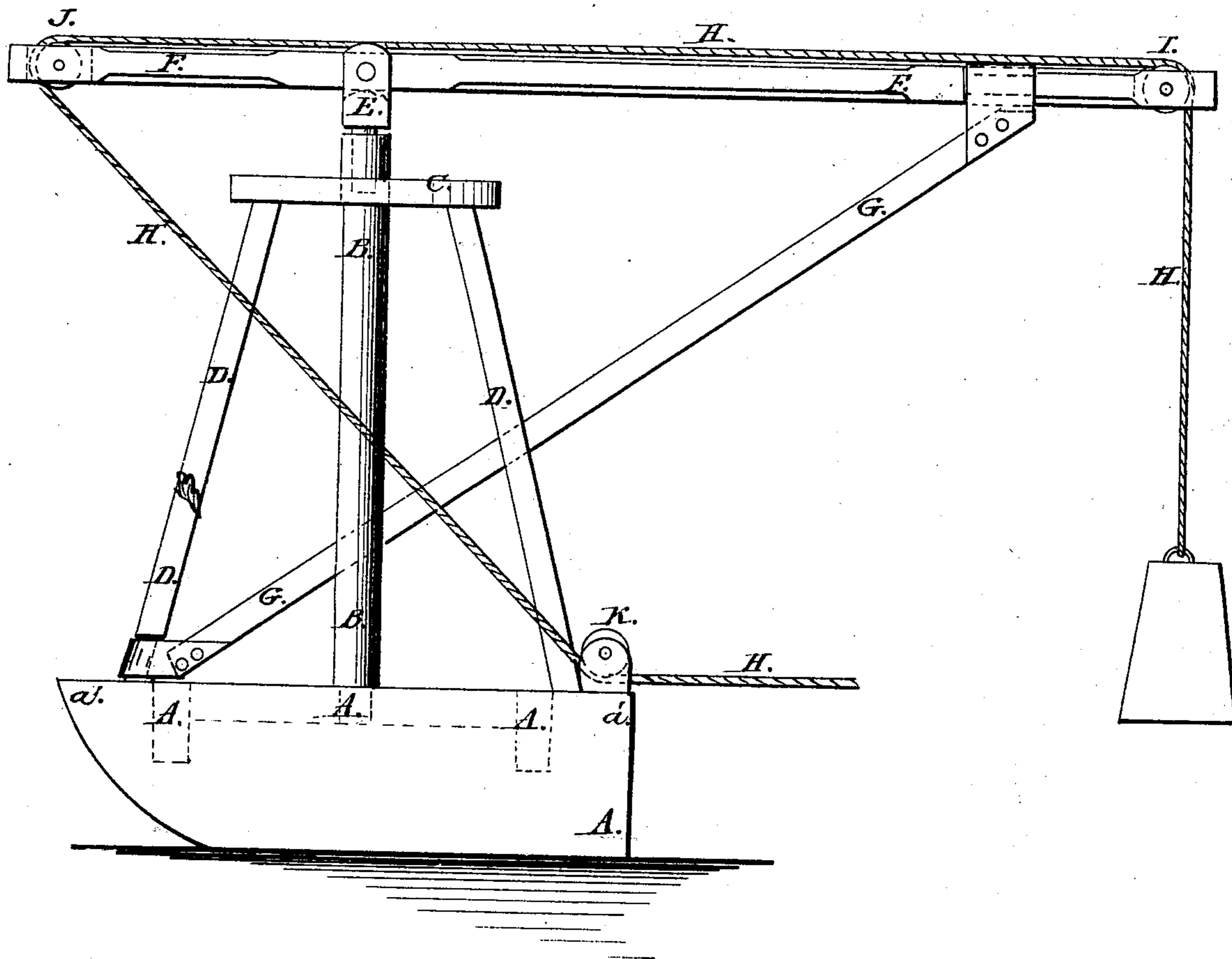


*N. Mattick,*

*Derrick.*

*No. 89,416.*

*Patented Apr. 27. 1869.*



*Witnesses:*

*John H. Becker*  
*John H. Brooks*

*Inventor:*  
*N. Mattick.*

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# United States Patent Office.

NEWTON MATLICK, OF WILLIAMSTOWN, MISSOURI.

*Letters Patent No. 89,416, dated April 27, 1869.*

## IMPROVEMENT IN DERRICKS.

*The Schedule referred to in these Letters Patent and making part of the same.*

*To all whom it may concern:*

Be it known that I, NEWTON MATLICK, of Williams-town, in the county of Lewis, and State of Missouri, have invented a new and improved Derrick; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which the figure is a side view of my improved derrick, part being broken away to show the construction.

My invention has for its object to furnish an improved derrick, which shall be simple in construction, easily moved from place to place, and conveniently operated, raising the hay or other weight, and at the same time and by the same operation, swinging it into the position in which it is to be placed; and

It consists in the construction, combination, and arrangement of the various parts, as hereinafter more fully described.

A is the base, or foundation-frame of the machine, the side-bars *a'* of which, are made deep, and have their forward ends bevelled off, so as to serve as runners for transporting the machine.

To the middle part of the frame A, is secured the lower end of the vertical post B, the upper end of which passes through the block, or platform C, and which is still further secured in place, and supported against side strain by the braces D, the upper ends of which are attached to the corners of the block C, and the lower ends of which are attached to the corners of the foundation, or base-frame A.

To the upper end of the post B is pivoted the block E, by means of a pin formed upon the lower end of said block, which enters a socket formed for its reception in the upper end of the said post B.

Upon the upper end of the pivoted block E, are formed ears, between which is pivoted the crane-arm, or lever F, so that the said lever may have both a vertical and lateral movement.

G is an inclined brace, the upper end of which is pivoted, or hinged to the forward part of the long arm of the lever F, and the lower end of which is pivoted to the lower part of one of the braces D, or to the frame A, so that as the lever F is moved laterally by the action of the hoisting-rope H, the forward

end of the said lever F may at the same time be raised by the combined action of the hoisting-rope H, and hinged or pivoted brace G.

H is the hoisting-rope, to one end of which the weight to be raised is attached.

The rope H passes from the weight to be raised, over the pulley I, pivoted to the forward end of the lever F, along the upper side of said lever, and over the pulley J pivoted to the end of its short arm.

From the pulley J the rope H passes around the pulley K, pivoted to the base-frame A, and to its other end the hoisting-power is attached.

By this construction and arrangement of the parts of the derrick, as the power is applied to the rope H, the first effect is to raise the weight from the ground.

When the weight being raised strikes against the end of the lever F, if the application of power is continued, the next effect is to move the forward end of the lever F laterally, and at the same time raise it, and with it the weight, thus bringing the weight into the desired position.

In cases in which it is not desired to raise the weight so high, the lateral movement of the lever F may be made to begin at any point, by forming a loop upon the rope H, at the proper point between the weight to be raised, and the end of the lever F, and passing through this loop a pin, and the lateral movement will begin as soon as the said pin strikes against the said lever F.

This enables the weight to be raised to and deposited at any desired height.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

An improved derrick, formed by the combination of the pivot-block E, pivoted lever F, inclined pivoted, or hinged brace G, pulleys I, J, and K, and rope H, with each other, and with the supporting frame-work A *a'* B C D, said parts being arranged and operating substantially as herein shown and described, and for the purpose set forth.

NEWTON MATLICK.

Witnesses:

W. A. FALKENSTEIN,  
JAC. G. MATLICK.